

United States Court of Appeals for the Federal Circuit

2007-1240, -1251, -1274

VERIZON SERVICES CORP., VERIZON LABORATORIES, INC.,
and VERIZON COMMUNICATIONS, INC.,

Plaintiffs-Appellees,

v.

VONAGE HOLDINGS CORP.,
and VONAGE AMERICA, INC.,

Defendants-Appellants.

Richard G. Taranto, Farr & Taranto, of Washington, DC, argued for plaintiffs-appellees. With him on the brief were John Thorne, Verizon, of Arlington, Virginia; Brian C. Riopelle, McGuireWoods LLP, of Richmond, Virginia; and Peter C. McCabe III, Winston & Strawn LLP, of Chicago, Illinois, and Charles B. Molster III and Geoffrey P. Eaton, of Washington, DC.

Roger E. Warin, Steptoe & Johnson LLP, of Washington, DC, argued for defendants-appellants. With him on the brief were Scott W. Doyle, Richard K. Willard, Seth A. Watkins, and Daniel L. Girdwood.

Appealed from: United States District Court for the Eastern District of Virginia

Senior Judge Claude M. Hilton

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DECIDED: September 26, 2007

Before MICHEL, Chief Judge, and GAJARSA and DYK, Circuit Judges.

Opinion of the Court filed by Circuit Judge DYK, in which Chief Judge MICHEL joins as to the Background and parts I and V of the Discussion; and Circuit Judge GAJARSA joins as to the Background and parts II, III, and IV of the Discussion. Chief Judge MICHEL filed an opinion dissenting-in-part. Circuit Judge GAJARSA filed an opinion concurring-in-part and dissenting-in-part.

DYK, Circuit Judge.

INTRODUCTION¹

Appellants Vonage Holdings Corp. and Vonage America, Inc. (“Vonage”) appeal from the judgment of the United States District Court for the Eastern District of Virginia in favor of appellees Verizon Services Corp., Verizon Laboratories Inc., and Verizon Communications, Inc. (“Verizon”). The judgment awarded \$58,000,000 in

¹ All judges agree that the Introduction and Conclusion accurately state the holding of the case.

compensatory damages and a royalty of 5.5% on any future infringing sales, based on a jury verdict that Vonage infringed claims of U.S. Patent Nos. 6,282,574 ("574 patent"), 6,104,711 ("711 patent") and 6,359,880 ("880 patent"), and that those patents were not invalid as obvious. Vonage also appeals from the injunction entered by the district court barring Vonage from further infringing the asserted claims, including provisions that bar the use of certain methods and devices.

We hold that the district court did not err in its construction of disputed claim terms of the '574 and '711 patents. Therefore, we affirm the judgment of infringement with respect to those claims. However, we hold that the district court improperly construed one of the disputed terms in the '880 patent, and accordingly vacate the judgment of infringement with respect to the '880 patent and remand for a new trial.

We hold that the district court did not commit prejudicial reversible error in instructing the jury on the law of obviousness with respect to the '574 and '711 patents, and therefore affirm the judgment that the asserted claims of those patents would not have been obvious. However, in light of the error in the construction of the claims of the '880 patent and the possibility of error in the jury instruction on obviousness, we remand to the district court to determine whether prejudicial error occurred with respect to the jury instructions that would affect the obviousness verdict with respect to the '880 patent.

We vacate in its entirety the award of \$58,000,000 in damages and the 5.5% royalty and remand to the district court for further proceedings. We affirm the injunction as to the '574 and '711 patents. We vacate the injunction insofar as it pertains to the '880 patent.

BACKGROUND

I Vonage's system

Since 2002 Vonage has provided telephone service to its subscribers through Voice over IP ("VoIP") technology. Vonage's system allows subscribers to place and receive telephone calls to and from parties that are Vonage subscribers and to and from parties that have traditional telephones without Vonage service. The principal difference between Vonage's service and traditional telephone service is that Vonage's system uses the internet to transmit telephone signals, rather than using the traditional public switched telephone network ("PSTN"). When Vonage subscribers place calls to non-subscribers on the PSTN, Vonage's system transmits the signals through the internet, and then relays them to the PSTN. Vonage's system uses subscribers' existing internet connections to transmit telephone signals electronically.

There are three ways for Vonage subscribers to connect to Vonage's system. First, subscribers can use a traditional telephone, which is connected using a standard telephone cord to a terminal adapter (the user agent), which then converts analog voice signals to digital signals and communicates with the Vonage system to send or receive telephone calls. Second, Vonage subscribers can also use Vonage telephones that have an integrated, built-in terminal adapter. Third, Vonage subscribers can install certain software on their computers that allows their computer to be used as a telephone. Under this option, the subscriber simply speaks into a microphone attached to the computer, and hears responses through the speakers.

II Verizon's patents

Three Verizon patents are relevant to this appeal: the '574, '711, and '880 patents. These patents do not claim the invention of the internet telephone; rather the basic purpose of the '574 and '711 patents (which share a specification) is to provide a server for enhanced name translation, which can be useful in implementing an internet telephone but is not limited to that purpose. The specification describes how the invention enhances the existing Domain Name System ("DNS"), which translates domain names (such as "www.fedcir.gov") into Internet Protocol ("IP") addresses. The invention enhances that system by allowing for a greater number of translations, including translations to and from telephone numbers. The invention is said to be "particularly advantageous for processing of voice telephone communications through the [internet]." '711 patent col.6, ll.48-50. The specification describes how users can use their computers' speakers and microphones to conduct conversations where the voice signals are carried in digital form through the internet.

The '880 patent describes a localized wireless gateway system that allows wireless telephones to register with the system and make calls. '880 patent abstract. According to the specification, cordless or wireless telephones can be registered with base station transceivers, which are then connected to the internet and the gateway. Id. col. 4 ll. 6-17.

For simplicity we limit our description to the claims and defenses presently at issue in this appeal. Verizon asserted the following claims of the '574, '711, and '880 patents:

Claim 27 of the '574 patent depends on claim 26. Claims 26 and 27 state:

26. A method comprising:

receiving a name translation request at a server coupled to a public packet data network;

translating a name included in the request into a destination telephone number associated with a name included in the request; and

transmitting a reply containing both the destination telephone number and a packet data network address of a telephone gateway coupled between the public packet data network and a telephone network through the public packet data network to a calling device.

27. A method as in claim 26, wherein the address is an Internet Protocol address.

Claim 20 of the '711 patent depends on claim 15. Claims 15 and 20 state:

15. A method comprising:

receiving a name translation request at a server coupled to a public packet data network;

executing a conditional analysis in response to the name translation request;

if the conditional analysis produces a first result, translating a name included in the name translation request into a first destination address;

if the conditional analysis produces a second result, translating the name included in the name translation request into a second destination address; and

transmitting a response message containing the first or the second destination address to a calling device for use in establishing communication at least partially through the public packet data network.

20. A method as in claim 15, wherein:

the first and second destination address includes a numeric Internet Protocol address; and

the second destination address further includes information relating to call routing via a public switched telephone network.

Claims 1 and 6-8 of the '880 patent, state:

1. A method comprising:

registering a wireless telephone terminal in a localized wireless gateway system;

transmitting registration data identifying the gateway system from the localized wireless gateway system to a home location register database through a public packet data communication

network;

receiving a request from a calling computer coupled to the public packet data communication network for a call to the wireless telephone terminal;

in response to the request, accessing the home location register database and obtaining a packet data address for the localized wireless gateway system;

using the address to set up a voice communication through the public packet data communication network and the localized wireless gateway system between the calling computer and the wireless telephone terminal.

6. A method as in claim 1, wherein the public packet data communication network is a packet switched network.

7. A method as in claim 6, wherein the packet switched network comprises a system of interlinked data networks using TCP/IP protocol.

8. A method as in claim 7, wherein the system of interlinked data networks comprises the Internet.

III Limitations at issue in this appeal

Verizon alleges that features of Vonage's system correspond to limitations described in Verizon's patents. The first relevant feature of Vonage's system relates to transmission of the telephone number dialed by a Vonage subscriber. The Vonage system transmits this telephone number in a string of text known as a SIP Invite. The telephone number is later extracted and reformatted by Vonage's server. Verizon alleges that this extraction corresponds to the "translation" required by each of the asserted claims of Verizon's '574 and '711 patents. The asserted claims of those patents specify translation of a "name" into a telephone number or into an internet address. Vonage does not agree that the extraction of a telephone number from a SIP invite can be a translation and argues that translation within the meaning of Verizon's patents must involve a change in protocol (or language) from a higher-level protocol—

apparently meaning one that is closer to everyday expression than a native computer language—to a lower-level protocol—apparently meaning the opposite. Vonage concludes that the conversion from SIP invite to telephone number performed by its system cannot infringe because it does not involve a translation from a higher-level to a lower-level protocol.

Vonage also argues that several other terms in the asserted claims of Verizon's '574 and '711 patents should be limited based on language in the specification of those patents, and that if so limited, Vonage's system does not satisfy those limitations. Vonage argues that the "conditional analysis" of claims 15 and 20 of the '711 patent must be responsive to the called party's needs. Vonage argues that, by contrast, in its system the conditional analysis merely results in redirecting calls involving a delinquent Vonage subscriber and thus is not related to the called party's needs. Vonage also argues that the "server" of claims 26 and 27 of the '574 patent and claims 15 and 20 of the '711 patent should be restricted beyond its ordinary meaning and must manage an enhanced name translation service. Finally, Vonage argues that the "destination" address of claims 15 and 20 of the '711 patent must refer to the final destination on the network and that the address of certain intermediary points on Vonage's system called RTP relays do not qualify as destinations under the proper construction of the term.

Verizon argues that several Vonage devices infringe claims 1 and 6-8 of the '880 patent. These devices include traditional cordless telephones that interact with a base station owned by the Vonage subscriber (such as the V-Tech IP 8100 and Uniden UIP1869V cordless telephones) and wi-fi devices that can be used at wi-fi hot spots throughout a city. Vonage makes a number of arguments with respect to the '880

patent. It argues that the patented “localized wireless gateway system” must be read as limited in several ways. First, Vonage argues that it should be limited to a system that operates with a range of only a few feet, whereas the Vonage devices operate with a range of several hundred feet. Vonage also argues that the gateway itself compresses/decompresses and packetizes/depacketizes voice signals. These functions in the conversion of analog voice signals to digital signals are required to operate a hybrid system such as Vonage’s where calls are transmitted through the internet but also through normal telephone lines when the called party is not a Vonage subscriber. But Vonage contends that these functions are performed at the subscriber’s terminal rather than at the gateway as required by the ’880 claims. Finally Vonage argues that the patented “localized wireless gateway system” and “Wireless Telephone Terminal,” requirements of the ’880 patent, must provide more than one base station and allow users to roam among different base stations, whereas users do not roam on Vonage’s system.

IV Procedural History

Verizon filed suit against Vonage on June 12, 2006, asserting that Vonage’s system infringed Verizon’s patents. The district judge held a claim construction hearing and issued a claim construction order on February 12, 2007, construing a number of disputed terms.

After a several-week jury trial, the jury rendered its verdict. The jury found that the asserted claims of the ’574, ’711, and ’880 patents had been infringed. The jury also found that the asserted claims of the ’574, ’711, and ’880 patents were not invalid as obvious, and that Vonage’s infringement was not willful. The jury awarded damages

of \$58,000,000 and set a royalty rate of 5.5% to govern any future infringement. The district court entered judgment on the jury verdict on March 13, 2007, and denied Vonage's motion for new trial on April 12, 2007.

On April 12, 2007, the district court issued a permanent injunction barring Vonage from further infringing the asserted claims of the '574, '711, and '880 patents. The district court simultaneously stayed the injunction pending appeal as to present or existing customers. On April 6, 2007, Vonage filed an Emergency Motion for Stay in this court, seeking to extend the district court's stay of the injunction pending appeal to new customers as well. On April 24, 2007, after oral argument, we fully stayed the injunction pending appeal, and ordered expedited briefing.

Vonage timely appealed the district court's judgment to this court. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

DISCUSSION

I

On appeal, Vonage contends first that, at the Markman hearing, the district court misconstrued a number of pertinent claim terms in each of the three patents. The district court used the same claim constructions in the jury instructions as it had articulated in its Markman decision. Because we conclude that the district court did not err in its jury instructions construing the claim terms of the '574 and '711 patents, we need not reach the question of whether raising claim construction issues at the Markman stage excuses compliance with the Rule 51 requirement that a party object to a jury instruction at the time the district court proposes it. We consider issues of claim construction without deference. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1456

(Fed. Cir. 1998) (en banc).

Vonage challenges the district court's construction of four terms in these patents. First, Vonage complains about the district court's failure to limit the term "translation" in asserted claims 26 and 27 of the '574 patent and claims 15 and 20 of the '711 patent. The district court instructed the jury that the term "name translation request" means "a query for translation of a name into routing information for a public packet data network." J.A. at 6622. Vonage argues that the district court erred in failing to define the claim term "translating," to require that the system "directly convert a higher level protocol identifier of a node to a different lower level protocol." J.A. at 2726. In its Markman decision, the district court rejected Vonage's interpretation and noted that "[a]lthough several examples appear in the specification demonstrating a translation from a higher to a lower level protocol, such limitations are not properly read from the specification into the claims." Verizon Servs. Corp. v. Vonage Holdings Corp., No. 06-0682 at 14 (E.D.Va. Feb. 12, 2007) ("Markman Order").

We see no error in the district court's construction. Vonage points to nothing, and we can find nothing, in the claim language or the specification that would support Vonage's proposed definition. The mere fact that the specification's examples of translation may involve a change in protocol from a higher to a lower level protocol does not establish that such a limitation should be imported into the claims. See Phillips v. AWH Corp., 415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc) (cautioning against importing limitations from the specification into the claims); Texas Instruments, Inc. v. U.S. Int'l Trade Comm'n, 805 F.2d 1558, 1563 (Fed. Cir. 1986) ("This court has cautioned against limiting the claimed invention to preferred embodiments or specific

examples in the specification.”). Contrary to Vonage’s argument, there is also no evidence that the ordinary meaning of translation in the art means a change in protocol from a higher-level to a lower-level protocol.²

Second, Vonage challenges the district court’s construction of the term “conditional analysis” in asserted claims 15 and 20 of the ’711 patent. The district court instructed the jury that the claim term “conditional analysis” means “a determination that generates a first result based on a first condition or data, and a second result based on a different condition or data.” J.A. 6622. Vonage argues that the district court should have limited the “conditional analysis” performed to one that is “based upon the called party’s preferences.” An example of a conditional analysis based on the called party’s preferences would involve routing calls to different telephones based on the time of day. The district court rejected this interpretation in its Markman decision. Markman Order at 14.

Here again we see no error in the district court’s construction. Nothing other than specification examples supports Vonage’s interpretation. See, e.g., ’711 patent col.11 II.16-19. Although Vonage argues that the specification’s discussion of the “present

² Vonage alternatively argues that the district court should have instructed the jury that translation requires a change in protocol, and that the extraction of a telephone number that the Vonage system performs is not a change in protocol. Vonage also argues that a mere extraction cannot be a translation. These arguments were not even raised in Vonage’s claim construction briefs in connection with the Markman hearing. There is nothing in the specification or prosecution history that would compel Vonage’s interpretation. Vonage offers no supporting dictionary definition of the term “translation.” Under these circumstances one might have expected Vonage to provide expert testimony that those skilled in the art would understand the term “translation” to have the meaning that Vonage urged. But Vonage has not called our attention to any such testimony. On the other hand Verizon’s expert did testify that one skilled in the art would understand extraction to constitute translation. We see no error in the district court’s failure to include Vonage’s interpretation in the jury charge.

invention” requires that the conditional analysis performed be based upon the called party’s preferences, the language it cites nowhere mentions the called party’s preferences. See ’711 patent col.6; ll.41-47.

Third, Vonage complains of the district court’s construction of the term “server” in asserted claims 26 and 27 of the ’574 patent and claims 15 and 20 of the ’711 patent. The district court instructed the jury that the term means “a computer system, such as one or more computers and/or devices, that provides services to other computer systems over a network.” J.A. at 6622. Vonage argues that the “server” of the asserted claims of the ’574 and ’711 patents must “manage[] an enhanced name translation service.” Appellants’ Br. at 49.

Again the district court rejected Vonage’s proposed construction in its Markman decision, and we see no error in that ruling. Markman Order at 12-13. While the claims at issue specify “receiving a name translation request at a server,” ’574 patent, claim 26, ’711 patent, claim 15, and the specification discusses “providing enhancements to the address processing of a domain name server,” ’711 patent col.4 ll.27-28, there is simply no indication that the term “server” is being redefined in the specification to include these enhanced name translation functions. The fact that such functions are mentioned separately when a “server” is mentioned in the claims weighs against limiting a “server” to one that performs the functions. See Phillips, 415 F.3d at 1314 (“[T]he claim in this case refers to ‘steel baffles,’ which strongly implies that the term ‘baffles’ does not inherently mean objects made of steel.”). Since the specification does not define the term “server,” we look to its ordinary meaning to a person of ordinary skill in the art. Vonage’s proposed definition restricts the term “server” beyond this ordinary meaning.

See Microsoft Computer Dictionary 474 (5th ed. 2002) (defining “server” as “a computer . . . that responds to commands from a client”); see also Phillips, 415 F.3d at 1314, 1318 (noting usefulness of technical dictionaries in construing claims).

Finally, Vonage challenges the district court’s failure to construe the term “destination” in the phrase “destination address” in asserted claims 15 and 20 of the ’711 patent so that it refers only to a final destination, and not an intermediate destination. The district court did not instruct the jury with respect to the meaning of this term, and did not adopt Vonage’s proposed construction. Vonage proposed the following construction: “Destination address means an identifier of an endpoint in the public packet data network.”³ J.A. at 68, 2727. Vonage argues that, because of the district court’s failure to construe the term “destination,” Verizon was able to argue to the

³ The asserted claims of the ’711 patent refer to a “destination address” multiple times:

15. A method comprising:

receiving a name translation request at a server coupled to a public packet data network;

executing a conditional analysis in response to the name translation request;

if the conditional analysis produces a first result, translating a name included in the name translation request into a first destination address;

if the conditional analysis produces a second result, translating the name included in the name translation request into a second destination address; and

transmitting a response message containing the first or the second destination address to a calling device for use in establishing communication at least partially through the public packet data network.

20. A method as in claim 15, wherein:

the first and second destination address includes a numeric Internet Protocol address; and

the second destination address further includes information relating to call routing via a public switched telephone network.

’711 patent (emphasis added).

jury that intermediate points in Vonage's system (e.g., RTP relays) qualify as destinations within the meaning of the '711 patent.

We see no error in the district court's decision not to adopt Vonage's proposed construction. Vonage principally relies on a passage in the specification that it claims defines "destination address" to mean a final endpoint, and not an intermediate destination. See '711 patent col.2 ll.26-37. That passage is excerpted not from a description of the invention of the '711 patent, but rather from a description, in the "Background Art" section of the patent, of how the internet works in general. Moreover, the cited passage describes how a "packet [of data] bearing a destination address" is forwarded through the internet until it arrives at a "destination computer." There is no reason to think that the same packet of data cannot then be forwarded again to another destination, until it reaches its final destination. Vonage's interpretation assumes that the "destination computer" must be a final endpoint. But it could just as easily be an intermediate endpoint, and the packet of data could then be forwarded to another "destination computer." Thus the cited passage does not redefine "destination" to mean "final destination." The cited passage also does not address the meaning of "destination address" within the patented invention, but only within the context of the general operation of the internet, and is of limited utility. Further, the ordinary meaning of the term "destination" is not limited to a final destination. In fact, Webster's Dictionary defines "destination" as "a place which is set for the end of a journey or to which something is sent: place or point aimed at [, e.g.,] when buying your plane tickets always buy through to your farthest [destination]." Webster's Third New International Dictionary 614 (2002) (emphasis added).

Finally, Vonage's proposed construction of "destination address" fails for another reason. As Verizon points out, Vonage's proposed construction requires that the destination be part of the "public packet data network," i.e., the internet.⁴ This reading would exclude several examples in the specification where the "destination address" is a telephone number only, and thus not a point in the internet. '711 patent col.10 l.67 to col.11 l.3 (destination address "may be . . . [a] telephone number"); col.5 ll.52-54 ("In the preferred embodiment, the domain name server transmits different destination address information (IP address and/or telephone number).") (emphasis added). We normally do not interpret claim terms in a way that excludes disclosed examples in the specification. MBO Labs., Inc. v. Becton, Dickinson & Co., 474 F.3d 1323, 1333 (Fed. Cir. 2007) ("[A] claim interpretation that excludes a preferred embodiment from the scope of the claim is rarely, if ever, correct.") (internal citation omitted). Since Vonage's proposed construction was wrong by failing to account for the possibility that telephone numbers could be destinations, Vonage has failed to show error in the district court's failure to adopt it. See Biomedex Corp. v. Loredan Biomed., Inc., 946 F.2d 850, 854 (Fed. Cir. 1991) (holding that the party challenging jury instructions must "demonstrate . . . that the requested instruction was proper") (emphasis added); see also Advanced Display Sys., Inc. v. Kent State Univ., 212 F.3d 1272, 1281 (Fed. Cir. 2000) ("A party seeking to alter a judgment based on erroneous jury instructions must establish that [the proposed instruction]...would have remedied the error.").

Thus we conclude that there was no error in the district court's jury instructions

⁴ Vonage proposed the following construction: "Destination address means an identifier of an endpoint in the public packet data network." J.A. at 68, 2727 (emphasis added).

with respect to the terms in the '574 and '711 patents.

II

We now consider whether the district court's failure to require the "localized wireless gateway system" of asserted claims 1 and 6-8 of the '880 patent to operate with a range of a "few feet" (discussed above) was error. Again we need not decide whether raising this claim construction issue at the Markman stage excuses compliance with the requirements of Rule 51. This is so because the trial record establishes that it indeed would have been futile for Vonage to object at the jury charge conference to the district court's construction of the claim term "localized wireless gateway system," on the ground that the district court failed to limit the range of such a system to a "few feet."⁵

Vonage proposed construing the term "localized wireless gateway system" to mean "a plurality of base station transceivers with a limited range of a few feet and a packet service gateway that compresses/decompresses and packetizes voice signals." Appellants' Br. at 26 n.7 (emphasis added). Vonage argues that the gateway is limited to a transmission range of only a few feet because of statements made by the patentee during prosecution of a related patent of the same family as the '880 patent that so

⁵ During the trial Vonage sought to present expert testimony that the claims required that the patented system was limited to a range of a "few feet" and that the Vonage system was not so limited. Verizon's counsel objected, arguing that "[t]he Court has already construed the claim and there is no need for anything with respect to the prosecution history. The Court has already looked at it and, frankly, rejected this proposed limitation which Vonage offers." J.A. at 6046 (1144:10-14). In response the district court sustained Verizon's objection. Verizon itself clearly understood the district court to have announced that the construction of this term was finally determined: later in the trial Verizon again argued that the claim construction of this term was finally determined and not open to being reargued at trial, and that Vonage testimony regarding the operating range of one of its devices should be excluded. See J.A. at 6061. Under these circumstances a further objection would have been futile, and the claim of error was preserved.

limited the term. The district court instructed the jury to interpret the term “localized wireless gateway system” as: “a system which is fixed to a limited or local area and which provides wireless service coverage within that local area,” and did not include a “few feet” limitation. J.A. at 6623.

We have held that a statement made by the patentee during prosecution history of a patent in the same family as the patent-in-suit can operate as a disclaimer. Microsoft Corp. v. Multi-tech Sys., Inc., 357 F.3d 1340, 1350 (Fed. Cir. 2004) (statement made during prosecution of related patent operated as a disclaimer with respect to a later-issued patent).⁶ To operate as a disclaimer, the statement in the prosecution history must be clear and unambiguous, and constitute a clear disavowal of scope. Id., at 1356-57.

Such a clear disavowal has occurred here. The claims of the '880 patent originated in U.S. patent application No. 08/814,291 (“'291 application”). During prosecution the examiner issued a restriction requirement on the ground that the '291 application covered two independent and distinct inventions. The applicants then filed divisional application No. 09/363,750 (“'750 application”), pursuing some of the claims of the original '291 application, which was allowed as the '880 patent. The remainder of

⁶ See Alloc, Inc. v. Int'l Trade Comm'n, 342 F.3d 1361, 1371-72 (Fed. Cir. 2003) (statements made during prosecution of parent patent surrendering subject matter binding on later interpretation of the claims); Augustine Med., Inc. v. Gaymar Indus., Inc., 181 F.3d 1291, 1300 (Fed. Cir. 1999) (“[T]he prosecution history of a parent application may limit the scope of a later application using the same claim term.”); see also Phillips, 415 F.3d at 1317 (“[T]he prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.”); Chimie v. PPG Indus. Inc., 402 F.3d 1371, 1384 (Fed. Cir. 2005) (“The purpose of consulting the prosecution history in construing a claim is to exclude any interpretation that was disclaimed during prosecution.”) (internal quotation marks omitted).

the claims of the original '291 application in turn matured into U.S. Patent No. 6,542,497 ("497 patent"). The claims of both applications require a "localized wireless gateway system." During prosecution of the '291 application the applicants' claims were rejected based on prior art wireless gateway systems.

The applicants gained allowance of the claims of the '291 application after stating that the prior art systems "all appear to be directed to non-localized systems," and that the "present invention," by contrast, was "restricted to operate within a few feet from a base station (i.e. wireless handsets)." J.A. at 7191. Thus the applicants stated:

Even further, [the prior art references] all appear to be directed to non-localized systems. More specifically, Applicant respectfully submits that although the term "wireless" is used in [the prior art references], "wireless" does not mean "local wireless," as claimed by the present invention, in the sense of a cordless phone that is restricted to operate within a few feet from a base station (i.e. wireless handsets). The term "wireless" in [the prior art references] is directed to systems having wide-ranging networks of switching machines.

Id. (emphasis added). The applicants also stated:

[A prior art reference] arguably appears to disclose a local cellular or local wireless system, such as, for example, a cordless phone that is restricted to operate within a few feet from a base station. However, [the reference] does not disclose anything related to voice-over-internet or voice-over-internet protocol.

Id. at 7189 (emphasis added). We think that this language clearly disclaimed coverage of systems operating with a range greater than a "few feet," and that the district court erred in failing to construe the localized system as requiring a range of a few feet.

Verizon nonetheless argues that the disclaimer in the '291 application process (leading to the '497 patent) should not apply to the '880 patent because it occurred after the '880 patent issued. We reject this argument. As we held in Microsoft, where we

faced the same situation (disclaimer occurred after patent-in-suit had issued), “we think that it is not unsound to apply the same interpretation to th[e] patent[-in-suit],” “even though [that] patent had already issued.” 357 F.3d at 1350.

Showing that the district court erred in instructing the jury is not sufficient to warrant a new trial, however. Vonage also must show it was prejudiced by the district court’s error.⁷ Vonage argues that it was prejudiced by the district court’s error because several of its devices operate with a range greater than “a few feet” and, therefore, had the district court adopted Vonage’s proposed instruction, those devices would not have been shown to infringe. As discussed above, because of the district court’s claim construction Vonage was not able to introduce evidence that its telephones did not operate beyond a range of a “few feet.” The record also clearly shows that it was prepared to offer such evidence. Under such circumstances we believe that Vonage has satisfied the requirement of prejudice. The district court’s error in failing to limit the localized system to one with a range of a few feet therefore requires a new trial under the correct construction.

Since a new trial is necessary on the issue of infringement with respect to the ’880 patent, we believe it appropriate to interpret other claim terms that are disputed by

⁷ See Seachange Int’l, Inc. v. C-COR Inc., 413 F.3d 1361, 1381 (Fed. Cir. 2005); Ecolab Inc. v. Paraclipse, Inc., 285 F.3d 1362, 1374 (Fed. Cir. 2002) (“[T]o warrant a new trial, Ecolab must show that the erroneous jury instruction was in fact prejudicial. When the error in a jury instruction could not have changed the result, the erroneous instruction is harmless.”) (internal quotation marks omitted); Advanced Display Sys., 212 F.3d at 1281 (“A party seeking to alter a judgment based on erroneous jury instructions must establish that . . . the errors had prejudicial effect.”); Biodex, 946 F.2d at 854 (holding that a party challenging jury instructions “has a two-fold task [and] must both prove the jury instructions read in their entirety were incorrect or incomplete as given and then demonstrate that the suggested instruction could have cured the error”); 11 Charles A. Wright et al., Federal Practice and Procedure § 2886 (2d ed. 1995).

the parties on appeal and are likely to be at issue in the new trial. Vonage challenges the district court's construction of the term "localized wireless gateway system" of asserted claims 1 and 6-8 of the '880 patent (the same term pertinent to the "few feet" limitation) on the ground that the district court erred in failing to require that the patented gateway system "compress[]/decompress[] and packetiz[e] voice signals." Appellants' Bf. at 26, n. 7. We agree. The "Disclosure of the Invention" section of the '880 patent begins with a description of the gateway system of the "present invention." '880 patent col.4 ll.1-6. In the course of describing the "present invention," the specification then states that "[t]he gateway compresses and decompresses voice frequency communication signals and sends and receives the compressed signals in packet form via the network." Id. ll.12-15. When a patent thus describes the features of the "present invention" as a whole, this description limits the scope of the invention. Honeywell Int'l, Inc. v. ITT Indus., 452 F.3d 1312, 1318-19 (Fed. Cir. 2006); Scimed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1343 (Fed. Cir. 2001) ("[T]he characterization of the coaxial configuration as part of the 'present invention' is strong evidence that the claims should not be read to encompass the opposite structure."); see also Andersen Corp. v. Fiber Composites, LLC, 474 F.3d 1361, 1368 (Fed. Cir. 2007) (specification's description of a "critical element" found limiting).⁸ Thus the term "localized wireless gateway system" must be limited to one performing compression and packetization functions at the gateway.

⁸ Verizon argues that the "present invention" language is not significant in this case because the specification merely refers to "one aspect" of "the present invention." But that "aspect" is the "localized wireless gateway system," the very claim term that is at issue here. See '880 patent col.4 ll.6-7 ("Thus, in one aspect, the present invention relates to a localized wireless gateway system.").

Vonage also argues that the district court erred in failing to require that the “localized wireless gateway system” have multiple base station transceivers, because the specification states that “[t]he inventive system includes a plurality of base station transceivers.” '880 patent col.4 ll.7-8. However, we have held that a limitation requiring a “plurality” may be satisfied by a single object. Interactive Gift Express, Inc. v. Compuserve Inc., 256 F.3d 1323, 1335 (Fed. Cir. 2001) (“[T]he reference to a plurality . . . can consist of one material object.”). Therefore, Vonage has failed to show error in the district court’s interpretation.

Finally, Vonage challenges the district court’s construction of the claim term “wireless telephone terminal” of asserted claims 1 and 6-8 of the '880 patent. The district court instructed the jury to construe the term as “a telephone that communicates through radio signals to provide two-way voice communication.” J.A. at 6623. Vonage alleges that the district court improperly failed to require that the “Wireless Telephone Terminal” roam among a plurality of base stations. Vonage’s argument is meritless. Although the specification on occasion makes reference to “roaming” telephones, Vonage fails to identify language that would require roaming in every case. Vonage argues that because the patent requires multiple base stations, telephones must then roam between base stations. But we have rejected the contention that there must be multiple base stations, and the claims do not require roaming.

We conclude that the district court erred in construing the term “localized wireless gateway system” by failing to require that the system be limited to an operating range of a few feet and perform compression and packetization functions, but hold that in other respects there was no error.

We remand for a new trial on the '880 patent, and accordingly vacate the injunction with respect to the '880 patent.

III

Vonage challenges the district court's instructions to the jury on obviousness concerning the need to find a "suggestion in the prior art to combine the elements."⁹ Vonage's contention is that the district court "instructed the jury to rigidly apply the [teaching/suggestion/motivation to combine] test rejected by the Supreme Court in KSR [Int'l Co. v. Teleflex, Inc., 127 S. Ct. 1727 (2007)]. Appellants' Br. at 53-54.

First, we note that there cannot be prejudicial error with respect to the '574 and '711 patents because Vonage does not dispute that the obviousness testimony at trial centered on a single reference (U.S. Published Application No. 2003/0193933 ("Jonas")), and thus any alleged error in instructions requiring a finding of motivation to combine several references would have been harmless. With respect to the '880 patent, because the majority is revising the claim construction of several key terms, a remand to the district court is necessary to consider whether a new trial should be granted on the issue of obviousness. In light of that remand, we also think it best to allow the district court to consider in the first instance Vonage's argument concerning alleged error in the instruction under KSR, and to consider the issue of prejudice.¹⁰

IV

⁹ Vonage also argues that we should hold obvious as a matter of law the claims of the '880 patent. Since Vonage did not make a motion for judgment as a matter of law on this theory, Vonage's argument is not properly before us.

¹⁰ Vonage also argues that the district court should have given an instruction regarding the "obvious to try" standard, but Vonage made no showing there was an issue in this case that would make such a charge appropriate.

In light of our holding that a new trial is required on the issue of infringement of the '880 patent, we also vacate the determination that Verizon is entitled to a damages award of \$58,000,000 and a royalty rate of 5.5%, since the jury's verdict gives no indication what portion of such damages were allocated to the infringement of the '880 patent. In a situation—such as this one—where the jury rendered a single verdict on damages, without breaking down the damages attributable to each patent, the normal rule would require a new trial as to damages. See Memphis Cnty. Sch. Dist. v. Stachura, 477 U.S. 299, 312 (1986) (“When damages instructions are faulty and the verdict does not reveal the means by which the jury calculated damages, the error in the charge is difficult, if not impossible, to correct without retrial, in light of the jury's general verdict.”) (internal quotation marks omitted).

The parties have not briefed whether there is any reason to depart from this general rule in this case. We think it is best under these circumstances to remand this issue for consideration by the district court in the first instance.¹¹ For the same reason, the district court should consider in the first instance the validity of the award of a 5.5% royalty rate to govern any future infringement, and the proper disposition of the amounts presently in escrow pursuant to the district court's stay order.

V

Finally, we consider the injunction issued by the district court with respect to the '574 and '711 patents. Although we have sustained the verdict of infringement with

¹¹ See NTP, Inc. v. Research in Motion, Ltd., 418 F.3d 1282, 1326 (Fed. Cir. 2005) (remanding, reasoning that “because the jury verdict did not specify the amount of infringing sales attributed to each individual patent claim, or the specific devices and services determined by the jury to infringe each separately asserted claim, the district court will have to determine the effect of any alteration of the jury verdict on the district court's damage award”).

respect to the '574 and '711 patents, Vonage argues that the district court abused its discretion by issuing an unsupported injunction with respect to those patents. We review the district court's decision to grant the injunction for abuse of discretion. Joy Techs., Inc. v. Flakt, Inc. 6 F.3d 770, 772 (Fed. Cir. 1993).

The district court in this case made findings of fact under the four prongs of the test for issuance of an injunction, which require a plaintiff seeking an injunction to demonstrate: "(1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction." eBay Inc. v. MercExchange, L.L.C., 126 S. Ct. 1837, 1839 (2006). Vonage argues that the district court impermissibly based its finding of irreparable harm on lost sales alone, see Abbott Labs. v. Andrx Pharm., Inc., 452 F.3d 1331, 1348 (Fed. Cir. 2006), but the district court found there were "several areas of [irreparable] harm," J.A. at 6700, and the record contains evidence of price erosion as well as lost opportunities to sell other services to the lost customers.

Vonage also argues that an injunction was not necessary and that the reasonable royalty decided by the jury was sufficient to compensate Verizon's harm. See Pfizer, Inc. v. Teva Pharm. USA, Inc., 429 F.3d 1364, 1381 (Fed. Cir. 2005) (citing Polymer Techs., Inc. v. Bridwell, 103 F.3d 970, 974 (Fed. Cir. 1996) (under certain circumstances "it may be reasonable to expect that invasion of the patent right can be recompensed with a royalty rather than with an injunction")).

Vonage has demonstrated no clear error in the district court's determination to

award an injunction with respect to the '574 and '711 patents. The district court considered the detailed testimony on both sides before deciding to issue the injunction. We see no abuse of discretion and therefore affirm the district court's decision to issue an injunction with respect to the '574 and '711 patents. While Vonage argues that the injunction was overbroad as to the '880 patent, it makes no such argument with respect to the injunction as to the '574 and '711 patents.¹²

CONCLUSION

We remand to the district court for a new trial on infringement of the '880 patent in light of our holding that the district court erroneously instructed the jury with respect to the meaning of several contested claim terms. We also vacate paragraph 3 of the injunction issued by the district court and all other portions of the injunction that relate to the '880 patent, but affirm the injunction in other respects. We remand to the district court as well to determine whether the jury instructions on obviousness were erroneous in light of KSR, and whether any error was prejudicial as to the '880 patent. We vacate the award of \$58,000,000 in damages and the 5.5% royalty rate, and remand to the district court for further consideration of the damages issue. In other respects, the decision of the district court is affirmed.

¹² One factor that is relevant to the balance of the hardships required by the Supreme Court's decision in eBay was not considered by the district court, namely whether the district court should have allowed time for Vonage to implement a workaround that would avoid continued infringement of the '574 and '711 patents before issuing its injunction. Verizon had a cognizable interest in obtaining an injunction to put an end to infringement of its patents; it did not have a cognizable interest in putting Vonage out of business. However, as Verizon points out, Vonage made no request for a workaround period to the district court, and Vonage has already had several months since the district court's judgment to implement a workaround.

For the foregoing reasons, the decision below is

AFFIRMED-IN-PART, VACATED-IN-PART, and REMANDED

COSTS

No costs.

United States Court of Appeals for the Federal Circuit

2007-1240, -1251, -1274

VERIZON SERVICE CORP., VERIZON LABORATORIES, INC., and
VERIZON COMMUNICATIONS, INC.,

Plaintiffs-Appellees,

v.

VONAGE HOLDINGS CORP., and VONAGE AMERICA, INC.,

Defendants-Appellants.

MICHEL, Chief Judge, dissenting-in-part.

Although I join in the majority opinion with regard to its disposition of the claim construction, invalidity, and injunction issues relating to two of the patents-in-suit, U.S. Patent Nos. 6,282,574 ("574 patent") and 6,104,711 ("711 patent"), I respectfully dissent as to its disposition of the issues regarding the third patent-in-suit, U.S. Patent No. 6,359,881 ("880 patent"), as well as its vacating the damages awarded by the jury. I would hold that the district court correctly construed all of the terms at issue in this appeal. Further, I would hold that the district court's jury instructions on obviousness were consistent with the Supreme Court's decision in KSR Int'l Co. v. Teleflex, Inc., 127 S. Ct. 1727 (2007) and the precedents of this court. Therefore, I would affirm the district court's liability judgment, its damages award, and its permanent injunction in their entirety.

I. Claim Construction

A. '880 Patent: "Few Feet"

The majority holds that the district court erred by failing to construe the '880 patent's claims to limit them to systems that operate within a range of a "few feet."¹ It is undisputed that the claims of the '880 patent do not include any such range limitation. But the majority imputes one from the use of the claim term "localized wireless gateway system," focusing specifically on the requirement that the gateway system be "localized." It does so based on reading out of context snippets of language used by the applicants in the prosecution of not the '880 patent, but rather a related patent not asserted in this case.

We have made clear the methods by which claims must be construed. The explicit language of the claims must be examined, and typically the ordinary meaning of the claim language will control. Phillips v. AWH Corp., 415 F.3d 1303, 1312-13 (Fed. Cir. 2005). The specification must also be scrutinized and the claim language read in the context of the specification. Id. at 1315. The prosecution history may also be

¹ The majority opinion remarks that it was futile for Vonage to lodge any objections under Fed. R. Civ. P. 51 as to its proposed "few feet" limitation following the district court's Markman hearing. I agree that the futility doctrine applies here but due to Cardiac Pacemakers, Inc. v. St. Jude Med., Inc., 381 F.3d 1371, 1381 (Fed. Cir. 2004). The majority opinion instead relies on an exchange at trial when Vonage's expert testified that he interpreted the prosecution history of the '880 patent to indicate that the applicant intended to limit the claimed invention to operate only "within a few feet of the base station." J.A. at 6046 (1143:20-1144:8). Verizon objected and moved to strike the testimony because "[i]t is a legal conclusion" and "[t]he Court has already construed the claim . . . and, frankly, rejected this proposed limitation which Vonage offers." Id. (1144:9-14). In response, the district court simply stated, "Objection sustained," and did not elaborate. Id. (1144:15). But the district court's terse evidentiary ruling here is far from a clear indication that any further objection would be futile since it provided no explanation—nor was one required—of the basis for sustaining Verizon's objection. To hold otherwise would impose an unnecessary burden on district judges to explain each such ruling to avoid unintentionally excusing parties from complying with Rule 51.

relevant, and can be dispositive when the applicant clearly and expressly disavowed claim scope. Id. at 1317; see also Amgen Inc. v. Hoechst Marion Roussel, Inc., 314 F.3d 1313, 1327 (Fed. Cir. 2003) (holding that "the prosecution history may not be used to infer the intentional narrowing of a claim absent the applicant's clear disavowal of claim coverage").

Here, as already mentioned, the claim language merely requires the gateway system to be "localized." As the district court properly noted, the specification clarifies what is meant by "localized." It states that "[t]he gateway system is a localized private system, as opposed to the common, public cellular telephone networks," that can "provide communication within an office or industrial complex . . . [or] a geographically limited public area of interest, such as an airport, shopping center, hotel/convention center complex or the like." '880 patent col.5 ll.30-37; see also id. col.10 ll.30-38 (discussing an embodiment that is "a business application for a single factory or office location" where the system's service "would be limited to the area in and around the factory or office location"); id. col.10 ll.42-44. Nowhere does the specification mention any restriction to a "few feet;" to the contrary, it discloses areas of operation as large as an airport, shopping center, or industrial complex. Consequently, the district court properly rejected Vonage's proposed "few feet" limitation.

The majority subverts the import of the unquantified term "localized" and ignores the clear meaning of the claim language and specification by finding prosecution history disclaimer. To be limiting, such a disclaimer must be clearly and expressly stated. Amgen, 314 F.3d at 1327. I agree with the majority that the prosecution of a divisional application may sometimes disclaim claim scope in a co-divisional application in the

same family, even if the disclaimer occurs after the co-divisional application has been filed or issued as a separate patent. But the allegedly disclaiming language in the file history of the '880 patent's co-divisional application relied on by the majority as overpowering numerous clear statements in the specification simply does not rise to the level of a clear disavowal of claim scope.

The majority seizes on two passages in the '880 patent's co-divisional application file history, both instances where the applicants are distinguishing their invention from prior art. In one, the applicants note that "'wireless' [as used in the prior art references] does not mean 'local wireless,' as claimed by the present invention, in the sense of a cordless phone that is restricted to operate within a few feet from a base station." J.A. at 7191 (emphasis added). The applicants here are clear that they are merely distinguishing certain prior art where "the term 'wireless' . . . is directed to systems having wide-ranging networks" that span large geographic areas. Id. This distinction is precisely the same made in the specification. While the applicants use the example of a cordless phone operating within a few feet to illustrate why their invention is different, they are not clearly disavowing everything other than such cordless phones.

The second excerpt from the prosecution history is even less clear as an alleged disavowal. The applicants merely stated, "[a prior art reference] arguably appears to disclose a local cellular or local wireless system, such as, for example, a cordless phone that is restricted to operate within a few feet from a base station." J.A. 7189 (emphasis added). Applicants are describing a prior art reference, not their invention, and again simply use the "example" of a cordless phone as an illustration. The applicants go on to distinguish that prior art on other grounds. See id. This is not the

"clear disavowal" of claim scope required by our precedents. Since no clear disavowal appears in the prosecution history, and the claim language, read in the context of the specification, specifically includes numerous embodiments with ranges greatly exceeding a few feet, I must dissent from the holding that the district court erred by not limiting the term "localized wireless gateway system" to require ranges limited to a few feet.

B. '880 Patent: Compression/Packetization

The majority also finds error in the district court's decision not to limit the term "localized wireless gateway system" to require that the gateway perform data compression and packetization. I cannot agree. Once again, the claim language is silent and does not mention these functions. The district court correctly concluded that the term should not be so limited.

This time, the majority relies on a passage in the specification where it states: "Thus, in one aspect, the present invention relates to a localized wireless gateway system The gateway compresses and decompresses voice frequency communication signals and sends and receives the compressed signals in packet form via the network." '880 patent col.4 ll.6-15 (emphasis added). But the majority fails to consider that this specification was originally penned to also support claims that were ultimately prosecuted in a separate divisional application, pursuant to a restriction requirement imposed by the PTO, because they constituted a separate and distinct invention. Those claims were issued in U.S. Patent No. 6,542,497 ("497 patent"), which was not asserted in this action. The '497 patent claims a "localized wireless gateway system" that contains certain specific features, including components to

compress and packetize data. '497 patent cl.1. Thus the "one aspect" referred to in the specification actually refers to subject matter outside the scope of the '880 patent altogether. And as already discussed and as the district court noted, the claims of the '880 patent do not require any particular type of "localized wireless gateway system" or that it perform any particular functions.² In such situations, we have held that the portions of the specification relating to claims of a separate divisional application should not be limiting. See LG Elecs., Inc. v. Bizcom Elecs., Inc., 453 F.3d 1364, 1378 (Fed. Cir. 2006). Thus, I would affirm the district court's decision not to limit the term "localized wireless gateway system" in the '880 patent to require performance of data compression or packetization.

II. Obviousness

The majority remands to the district court for reconsideration of the obviousness issues relating to the '880 patent. Because I do not discern claim construction error, I also would affirm the district court's determination that the '880 patent is not invalid and also reject Vonage's argument for reversal due to alleged defects in the jury instructions under KSR. Vonage argues that the district court applied the "rigid and mandatory" requirement of a "teaching, suggestion, or motivation to combine known elements," which the Supreme Court rejected in KSR. KSR, 127 S. Ct. at 1741. I disagree.

The relevant instructions were:

If you find that a combination of items of the prior art showed each of the elements of the claims in suit, you must determine whether a person

² Indeed, the fact that the '497 patent explicitly adds limitations regarding compression and packetization functions to its claim over a "localized wireless gateway system" tends to show that such functions are not typically or inherently performed by such a system.

of ordinary skill in the art would have been motivated to combine the prior art references.

* * *

If you conclude that the prior art discloses all the elements of the claimed invention, but those elements are found in separate prior art references, you must then consider whether or not it would have been obvious to combine the elements.

To answer this question yes, you must determine that there was some suggestion in the prior art to combine the elements. The suggestion can be expressly stated in a particular reference, or it may be within the knowledge that was generally available to one of ordinary skill in the relevant art.

J.A. at 6626. I think it plain that these instructions do not require an explicit reason to combine to be found in the prior art references themselves. Rather, the district court instructed that such a reason could be gleaned from "the knowledge that was generally available to one of ordinary skill in the relevant art." Id. Such an instruction is correct.

III. Damages and Injunction

Since I would affirm the district court's judgments on infringement and validity, I would not disturb the jury's determination of damages nor the district court's permanent injunction. Further, even when this court reverses a district court's finding of infringement and/or validity as to some, but not all, of the patents-in-suit, we do not necessarily need to vacate and remand the damages award.

When, as here, the evidence shows that each of the accused products infringes all of the patents-in-suit, and the infringer fails to make any showing on appeal that the damages award would not be supported by only those patents for which we affirm liability, we must affirm the damages despite our reversal of part of the infringer's liability. Remanding simply to reconfirm that the damages award is indeed supported by the affirmed liability under the remaining patents-in-suit imposes unnecessary costs on litigants and wastes judicial resources. Therefore, we should affirm the jury's

determination of Verizon's damages even assuming that the claims of the '880 patent were improperly construed.

CONCLUSION

In my view, this case is yet another example of our court needlessly upsetting judgments by finding legal error in Markman rulings that, while perhaps less than perfectly explained, are correct and that follow the methods for claim construction as explained in our precedents. Requiring more is not justified. Accordingly, I dissent.

United States Court of Appeals for the Federal Circuit

2007-1240, -1251, -1274

VERIZON SERVICES CORP., VERIZON LABORATORIES, INC.,
and VERIZON COMMUNICATIONS, INC.,

Plaintiffs-Appellees,

v.

VONAGE HOLDINGS CORP.,
and VONAGE AMERICA, INC.,

Defendants-Appellants.

GAJARSA, Circuit Judge, concurring-in-part and dissenting-in-part.

I join the court's decisions to vacate the judgment of infringement as to the '880 patent, to affirm infringement of the '574 patent, to affirm the judgment that the '574 and '711 patents are not invalid due to obviousness, and to remand the issue of obviousness of the '880 patent. However, I believe that the district court erred in failing to construe the claim term "destination address" and that Vonage's proposed construction is substantially correct. I would therefore vacate the judgment of infringement of the '711 patent, and I dissent from the court's judgment to the contrary.

Vonage proposed a definition for the '711 patent claim term "destination address" before the district court, arguing that the destination address must identify "a called

device or service endpoint.”¹ However, the district court’s Markman order and its resulting jury instructions lacked any reference to this term. The only instruction to the jury regarding this claim term arose from a catchall directive: terms the court had left undefined “are to be given by you [the jury] their customary and ordinary meaning to a person of ordinary skill in the art.” Failing to construe this term was error, both because the district court was obligated to provide some guidance to the jury on this term and because Vonage’s definition is the correct one. Vonage should be entitled to a remand for further proceedings on infringement of the ’711 patent.

A full understanding of the dispute between the parties on this claim term requires a brief foray into the technical details of Voice over IP (“VoIP”) calls. A VoIP call is placed over a “public packet data network,” in the parlance of the ’711 patent’s written description—in practice, the call is placed using the Internet. In a typical VoIP telephone call, the caller and callee each have an Internet Protocol (“IP”) address, and the data packets comprising the telephone call are routed over the Internet between them.² This routing is more-or-less direct: like all Internet traffic, the packets pass

¹ Vonage’s example of a “service endpoint” presented to the district court was a voicemail server. At oral argument before this court, though, counsel for Vonage suggested that a voicemail server could not satisfy the “destination address” claim limitation. Oral Arg. at 13:14-13:53, available at <http://www.cafc.uscourts.gov/oralarguments/mp3/07-1240.mp3>. I would hold Vonage to the position it took at the district court and find the address of a server providing voicemail functionality to be a “destination address” when that address is provided to a calling party.

² Some VoIP calls have their ultimate destination at a number on the public switched telephone network (“PSTN”), the network descended from the Bell System that is used to complete the vast majority of telephone calls. Vonage serves calls to or from PSTN telephone numbers by making available “PSTN gateways” that are connected both to the Internet and the PSTN and which intermediate between VoIP packets on the Internet side and regular telephone calls on the PSTN side. Thus, a Vonage subscriber seeking to call a telephone number will contact a PSTN gateway over the Internet, request that the gateway place a call to that number, and then send VoIP packets to the

through a variety of network routers on their way to their destination, but they are preferably sent along the shortest or otherwise most efficient path the Internet is able to provide. In some cases, however, this form of direct connection is not possible. For instance, if one or both of the parties to the conversation has a NAT, or “network address translation,” device between it and the rest of the Internet, technical limitations may prevent a direct Internet connection between the two conversants from being formed. In these cases, Vonage provides an “RTP relay” server to which both parties connect and which relays traffic from caller to callee and vice versa.

When an RTP relay is interposed into the call, the IP address provided to the calling computer is that of the relay, not that of the called computer. Verizon asserts that in such a case, the address of the relay is the “destination address” as that term is used in the asserted claims of the ’711 patent. Vonage disagrees, arguing that because the RTP relay is not the final destination of the data making up the call, the RTP relay’s address cannot be the destination address. The called computer is not provided with a “destination address” under Vonage’s definition, so if Vonage prevails on this claim construction issue it would likely be entitled to a finding of no literal infringement of the asserted ’711 patent claims.

As the above discussion should illustrate, the dispute between the parties on this term is a subtle, technical, and substantial one. The parties do not dispute that the data in an RTP-relayed call has its final destination at the callee’s computer, but that the

gateway, which reconstructs the sound of the caller’s voice and sends it over the telephone to the called number. A similar process occurs in reverse, and in this manner the Vonage subscriber is able to call or be called by a PSTN telephone number. The patent’s written description expressly contemplates embodiments involving a PSTN gateway whose IP address is part of the “destination address.” See ’711 patent col.13 l.51 to col.14 l.15.

individual IP packets sent from the calling computer have as their destination the RTP relay. Whether this arrangement embodies the “destination address” limitation entirely turns on what the scope and meaning of the term is. In the face of such a claim interpretation dispute, it is the duty of the court to resolve the issue. See Markman, 52 F.3d at 979 (“[I]n a case tried to a jury, the court has the power and obligation to construe as a matter of law the meaning of language used in the patent claim.” (emphasis added)). The district court here did not meet that obligation. Nowhere in its Markman order is the term “destination address” mentioned. The district court’s “customary and ordinary meaning” instruction essentially delegated to the jury the task of construing this claim term—without guidance from the bench, the jury was directed to impose its own definition on unconstrained terms. Especially when parties request that the court construe a claim term—as Vonage did here—such delegation is improper.

The district court’s error in failing to construe the term “destination address” would have been harmless if Vonage’s proposed limiting definition lacked merit. However, I would conclude that Vonage has correctly stated the definition of the term: a “destination address,” as that term is used in the ’711 patent, is the address of the endpoint of a call. The examples supplied in the patent’s written description all speak to the “destination” or “destination address” as being that of the actual called party. For instance, the patent references “different destinations of roaming subscribers,” ’711 patent col.4 ll.15-16 (emphasis added), and “determination of the status of a destination terminal,” Id. col.5 ll.24-25. A concrete example notes:

In the preferred embodiment, the domain name server transmits different destination address information (IP address and/or telephone number) depending on which of two or more time windows covers the time of arrival of each translation request. In this manner, the customer can have

the server return different address information at different times of the day, week or month. As a result, parties seeking to communicate with someone having one name on the network, actually receive instructions to communicate with two or more alternate destinations at different times. For example, the communications might go to the customer's office during office hours and to the home at other times.

Id. col.5 ll.52-63 (emphases added). This passage is consistent with a reading of “destination address” in which the “destination” must be the endpoint of the call—here, the recipient’s home or office, as appropriate. This usage of “destination” in contradistinction to an intermediate position in the network is not confined to descriptions of the preferred embodiment. In a preliminary description of Internet architecture, the patent notes:

When a packet bearing a destination address leaves the source router, the router examines the first two numbers in a matrix table to determine how many hops are the minimum to get to the destination. It then sends the packet to the next router as determined from that table, and the procedure is repeated. Each router has a database table that finds the information automatically. This continues until the packet arrives at the destination computer.

Id. col.2 ll.26-33. This passage clearly distinguishes “routers”—intermediaries which simply pass network traffic along—from “destination computer[s]” at which the traffic comes to rest.³ RTP relays function as routers. I acknowledge that an RTP relay does

³ The majority dismisses this passage as “not from a description of the invention of the ’711 patent, but rather from a description, in the ‘Background Art’ section of the patent, of how the internet works in general.” Maj. Op. at 14. I do not believe that the particular location of the passage within the specification matters. A patent specification is “a fully integrated written instrument,” Phillips v. AWH Corp., 415 F.3d 1303, 1315 (Fed. Cir. 2005) (*en banc*) (quoting Markman v. Westview Instruments, Inc., 52 F.3d 967, 978 (*en banc*)), in which words are assumed to have the same meaning throughout. Id. (“The words of patent claims have the meaning and scope with which they are used in the specification and the prosecution history.” (quoting Kinik Co. v. Int’l Trade Comm’n, 362 F.3d 1359, 1365 (Fed. Cir. 2004))). While the quoted language does not specifically describe the patentee’s invention, it is in the patentee’s own words and therefore helpful in understanding what those words mean when they appear in the claims.

not function only as a “router” as that term is technically defined by the Internet Protocol, since the IP packets are addressed to the relay and, from the perspective of Internet routers, terminate at the relay. However, the relay does little more than an IP router does—it simply repackages the received data in a different IP packet and forwards it along to the ultimate destination. I do not believe there is a meaningful distinction within the context of this patent between a “router” and “relay.” The patent clearly distinguishes intermediary pass-through nodes on the network from the endpoints.

The majority points out that the patent describes an embodiment in which the “destination address” is only a telephone number, and argues that such an embodiment would be improperly excluded because “Vonage’s proposed construction requires that the destination be part of the ‘public packet data network.’” Maj. Op. at 15-16. However, Vonage’s claim construction arguments did not need to focus on such a restriction, because the dependent claim actually asserted by Verizon explicitly requires that “the . . . destination address include[] a numeric Internet Protocol address,” excluding phone-number-only embodiments. ’711 patent claim 20. The thrust of Vonage’s argument was instead that “[w]ith respect to the asserted claims of the ’711 patent, the destination address is always the final endpoint in the public packet data network.” J.A. 68 (emphasis added). Even if Vonage’s proposed definition of “destination address” were technically flawed in some minor particulars, a court’s “task is not to decide which of the adversaries is correct” but rather to “independently . . . declare the meaning of the claims.” Exxon Chem. Patents, Inc. v. Lubrizol Corp., 64 F.3d 1553, 1556 (Fed. Cir. 1995). We have the power to approve those aspects of Vonage’s proposed claim construction which comport with the evidence while rejecting

those aspects which do not.

The evidence here indicates that Vonage's position on the endpoint versus intermediary issue—the relevant issue actually disputed by the parties—is correct. Reading the term “destination address” in the context of its usage by the specification, see Phillips v. AWH Corp., 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc), I conclude that the patentees meant to designate only the endpoint of the VoIP call. Verizon's theory of infringement, to the extent that it identifies the address of an RTP relay as a “destination address,” is without merit under that meaning. I would vacate the judgment of infringement of the '711 patent, vacate the injunction to the extent that it references the '711 patent, and remand with instructions to conduct further proceedings under a definition of “destination address” limited to the ultimate destination of the VoIP data.⁴

⁴ As to the other disputed terms in the '574 and '711 patents, “translating,” “conditional analysis,” and “server,” I agree with the majority’s conclusions.