NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

UNWIRED PLANET L.L.C.,
Plaintiff-Appellant

v.

GOOGLE, INC.,
Defendant-Appellee

2015-1966

Appeal from the United States District Court for the District of Nevada in No. 3:12-cv-00504-MMD-VPC, Judge Miranda M. Du.

Decided: November 21, 2016

PHILLIP AURENTZ, McKool Smith, PC, Dallas, TX, argued for plaintiff-appellant. Also represented by THEODORE STEVENSON III; KEVIN LEE BURGESS, JOEL LANCE THOLLANDER, Austin, TX.

GREGORY PAUL STONE, Munger, Tolles & Olson LLP, Los Angeles, CA, argued for defendant-appellee. Also represented by FRED ANTHONY ROWLEY, JR., ADAM R. LAWTON, PETER GRATZINGER; PETER ANDREW DETRE, San Francisco, CA.

Before WALLACH, HUGHES, and STOLL, *Circuit Judges.*

STOLL, *Circuit Judge.*

Unwired Planet, L.L.C. appeals from a stipulated judgment of noninfringement following adverse claim construction and indefiniteness rulings from the United States District Court for the District of Nevada. For the reasons that follow, we affirm-in-part, vacate the court's grant of summary judgment, and remand for proceedings consistent with this opinion.

BACKGROUND

Unwired originally asserted ten patents against Google, Inc. in the district court, although only three are at issue here on appeal: U.S. Patent Nos. 6,662,016, 6,895,240, and 6,684,087. Following the court's claim construction order concerning those patents and its invalidation of claims 17 and 31 of the '087 patent for indefiniteness, Unwired stipulated to a judgment of noninfringement.

The court granted the parties' joint motion for summary judgment. The parties agreed that, with respect to the '016 patent, the court's construction of "server node" entitled Google to summary judgment of noninfringement for claims 1–5. J.A. 57. For the same patent and asserted claims, the parties further agreed that the court's construction of "network location information regarding a mobile resource location" entitled Google to summary judgment of noninfringement with respect to its accused product My Location. J.A. 57. The parties further agreed that, with respect to the '240 patent, the court's construction of "proxy server" / "proxy server module" entitled Google to summary judgment of noninfringement for claims 1–3, 5, 6, 13, 15–18, 27, 28, and 30. J.A. 56. Also with regards to that patent, they agreed that the court's

construction of "user account" entitled Google to summary judgment of noninfringement for claims 6, 27, 28, and 30 of the '240 patent. J.A. 56. And finally, with respect to the '087 patent, the parties agreed that the court's construction of "reduced image" entitled Google to summary judgment of noninfringement for claims 1, 17, 27, and 31. J.A. 57.

Unwired appealed. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

"The ultimate construction of the claim is a legal question and, therefore, is reviewed de novo." *Info-Hold, Inc. v. Applied Media Techs. Corp.*, 783 F.3d 1262, 1265 (Fed. Cir. 2015). We review a district court's claim construction based solely on intrinsic evidence de novo, while we review subsidiary factual findings regarding extrinsic evidence for clear error. *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015).

Claim construction seeks to ascribe the "ordinary and customary meaning" to claim terms as a person of ordinary skill in the art would have understood them at the time of invention. *Phillips v. AWH Corp.,* 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc) (citing *Vitronics Corp. v. Conceptronic, Inc.,* 90 F.3d 1576, 1582 (Fed. Cir. 1996)). "[T]he claims themselves provide substantial guidance as to the meaning of particular claim terms." *Id.* at 1314. In addition, "the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id.* at 1313. But "[w]hile we read claims in view of the specification, of which they are a part, we do not read limitations from the embodiments in the specification into the claims." *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1371 (Fed. Cir. 2014).

On appeal, Unwired challenges seven claim constructions and the court's indefiniteness ruling. Of the seven challenged constructions, we disagree with the district court on three and agree on four. We disagree with the court's construction of the terms "marker info" and "server node" in the '016 patent. We also disagree with its construction of "user account" in the '240 patent. We agree with the remainder of the challenged constructions, including all of the challenged constructions in the '087 patent. Finally, we affirm the court's ruling that claims 17 and 31 of the '087 patent are invalid as indefinite.

I.

We begin with Unwired's argument that the district court misconstrued the terms "marker information," "network location information," and "server node" in the '016 patent.[1] The '016 patent describes technology for transmitting and displaying location information of a mobile device. The specification describes particular methods and systems for the "delivery of graphical location information regarding mobile resources." '016 patent col. 2 ll. 25–26. In the claimed method, a "server node" separately sends "mapping information" and "marker information" to a "client node," which processes the "mapping information" and "marker information" to "generate a graphical display indicating said mobile resource loca-

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[1] We adopt the parties' shorthand for the first two terms. The parties use the shorthand "marker information" to refer to the construed term "processing said network location information regarding said mobile resource location, at said server node, to generate marker information defining a graphical representation of said mobile resource location." The shorthand "network location information" stands for "network location information regarding a mobile resource location."

tion." *Id.* col. 12 l. 61 – col. 14 l. 4. Claim 1 is representative and is reproduced below:

> 1. A method for use in providing location information regarding mobile resources in a data enabled network, comprising the steps of:
>
> providing *a server node* associated with at least one wireless communication network assisted location finding system;
>
> said server node being in selective communication with a client node via the data enabled network;
>
> receiving, at *the server node*, *network location information regarding a mobile resource location*, said network location information being obtained using said at least one network assisted location finding system, wherein said network location information is based on the location of said mobile resource in relation to at least one fixed ground-based wireless network structure having a known geographic location;
>
> accessing at *the server node*, geographical mapping information for an area including said mobile resource location;
>
> *processing said network location information regarding said mobile resource location, at said server node, to generate marker information defining a graphical representation of said mobile resource location*, wherein said marker information represents said network location information so as to permit graphical combination of said marker information with said mapping information;

> first transmitting in a first message set, said mapping information from said server node to said client node;
>
> second transmitting in a second message set, said marker information from said server node to said client node; and
>
> wherein said mapping information and said marker information can be combined at said client node to generate a graphical display indicating said mobile resource location.

Id. col. 12 l. 57 – col. 14 l.4 (emphases added).

A.

Unwired argues that the court's construction of "marker information" in the '016 patent improperly imports a graphical output requirement into the claim, and we agree.[2] The central dispute between the parties was whether marker information must be information "sufficient to render" a graphical marker on a screen, as Google argued, or whether the marker information simply "permits rendering" of an identifier on a map, as Unwired proposed. *Unwired Planet, LLC v. Google Inc.*, No. 3:12-CV-00504, 2014 WL 7012497, at *27–28 (D. Nev. Dec. 12, 2014). The court adopted Google's construction of the term, finding that the claim requires the following: "at said server node, processing said network location infor-

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[2] The entire disputed "marker information" term requires "processing said network location information regarding said mobile resource location, at said server node, to generate *marker information* defining a graphical representation of said mobile resource location." '016 patent col. 13 ll. 10–13.

mation regarding said mobile device location to generate graphical location information sufficient to render an identifier and including coordinates indicating the position of said mobile device on a map." *Id.* at *27, *29. In short, the court found that marker information defines a graphical representation and must include information sufficient to render a graphical identifier. We disagree.

The specification defines the term "marker" as the "cursor or other identifier, indicating the position of a mobile resource." '016 patent col. 1 ll. 41–42. In contrast, the specification describes "marker information" as including "information identifying the mobile resource location." *Id.* col. 9 l. 66 – col. 10 l. 1. The specification states that "the marker information includes information sufficient to define a graphical representation of the mobile resource location" and that "such information may simply include coordinates which may be represented by a cursor, cross hairs, a point or other identifier or the location information may include coordinates which an uncertainty radius or other defined uncertainty region." *Id.* col. 10 ll. 13–19.

While "marker information" may include a graphical representation, the specification and prosecution history make clear that "marker information" need not always include graphical information. Rather, the intrinsic evidence confirms that "marker information" may be information about the mobile resource's location, without graphical information. The specification describes, for example, non-graphical "marker information," such as coordinates and uncertainties. *Id.* col. 10 ll. 14–19. The prosecution history further supports an interpretation of "marker information" that need not include a graphical representation. And in response to an office action, the applicant explained that marker information may simply reflect coordinates: "The marker information represents the network information so as to permit combination with the mapping data, e.g., the marker information may

reflect a longitude and latitude coordinate with an uncertainty parameter." J.A. 2683. With these remarks, the applicant explained unequivocally that marker information may simply represent coordinate values.

Read in the context of the prosecution history and the specification, we conclude that marker information need not include a graphical representation. We thus disagree with the district court and adopt Unwired's proposed construction, construing the term as follows: "at said server node, processing said network location information regarding said mobile device location to generate location information that permits rendering on the client node an identifier indicating the position of said mobile device on a map." *Unwired*, 2014 WL 7012497, at *27.

B.

Unwired also disputes the meaning of the term "network location information regarding a mobile resource location" in the '016 patent. In the district court, the parties disputed whether location information may be general coordinates, i.e., from a GPS, or whether location information must provide the mobile resource's location within a network. The district court found that the network location information must be "information providing the location of a mobile device within a network." *Unwired*, 2014 WL 7012497, at *29–30.

Unwired argues that, to the contrary, network information must only be "information relating to the location of a mobile resource" and that Google's construction introduced redundancy into the claims. *Id.* at 29. We disagree. The district court correctly determined that network location information, as used in the patent claims and specification, requires reference to the location's device within a network. The prosecution history confirms this interpretation. There, the applicant distinguished the patented invention from a reference using GPS-based location systems. The applicant stated that,

in contrast to GPS-based systems, the claimed "network location information provides a mobile resource location that is based at least in part upon the location of that mobile resource relative to one or more fixed ground-based wireless network structures that have a known geographic location." J.A. 2683. The applicant therefore made clear that network location information must include information about a mobile resource within a network. It cannot now seek a different interpretation. Thus, we agree with the court's construction.

C.

Finally, we turn to Unwired's argument that the district court misconstrued "server node" in the '016 patent by improperly importing a limitation into the claims. On appeal, Unwired argues that the claim permits the server node to comprise one or more computers or programs. The district court construed the term "server node" as "one or more computers, each performing the receiving, accessing, processing, and transmitting services specified in the claims." *Unwired*, 2014 WL 7012497, at *32. The court's construction thus required that each computer perform each and every one of the claimed functions—receiving, accessing, processing, and transmitting.

Google responds that extrinsic evidence supports the district court's requirement that the server node consist of computers where each performs all of the claimed functions. It argues that, under *Teva*, we owe the district court deference on its factual findings. Appellee Br. 48 (citing *Teva*, 135 S. Ct. at 842). While Google is correct that we owe deference to factual findings, the district court made no such findings here. In resolving the parties' dispute as to the meaning of "server node," the court discussed each party's submitted evidence. Google offered a 1999 technical dictionary, and Unwired offered contrary testimony concerning the implementation of the patented technology. *Unwired*, 2014 WL 7012497, at *32. The

court explained that these sources of evidence conflicted, but did not resolve this conflict of evidence. Indeed, the only other mention of extrinsic evidence came by way of the court's concluding sentence: "Considering the intrinsic and extrinsic evidence, the Court adopts, in part, both parties' proposed constructions." *Id.* The court's adoption-in-part of both parties' constructions left the conflict between the parties' extrinsic evidence unresolved. In turn, the district court's opinion on this claim term contains no reviewable factual findings. So although we owe deference to the district court's factual findings as a general matter, *Teva*, 135 S. Ct. at 842, we cannot lend such deference here.

On the merits of the claim construction dispute, we agree with Unwired's contention that the district court improperly imported a limitation into the claim. *See Hill-Rom Servs.*, 755 F.3d at 1371. The claim requires the server node to perform receiving, accessing, processing, and transmitting services. It does not specify that the node must be one or more computers with each performing every one of the computers' functions. Nor does the claim rule out multiple computers or programs working in concert to operate as the claimed server node. The claim merely requires that a single server node perform every claimed function.

Moreover, the specification does not require that the server node be a single computer, nor does it rule out an embodiment where the node consists of a collection of computers. For instance, figure 1 and its accompanying text describe a "server," but none of this text describes a server or server node as consisting solely of a single computer. '016 patent col. 9 ll. 14–61. The server acts as "a common platform for supporting services in various operating environments." *Id.* col. 9 ll. 60–61. But the text does not limit this feature-set to a particular hardware configuration. And it certainly does not limit this feature-set to one computer. Thus, the district court's construc-

tion improperly imported a limitation into the claim. We agree instead with Unwired's proposed construction, in which a server node is "one or more computers or programs that provide access to resources to client nodes."

II.

We turn next to the '240 patent, where Unwired challenges the district court's construction of "proxy server" and "user account." The '240 patent generally describes a system for facilitating communication between the wired internet and mobile phones, referred to by the specification as "landnet" and "airnet," respectively. '240 patent col. 4 ll. 36–39, col. 5 ll. 6–9. The specification provides an example of such a system in figure 1, reproduced below:

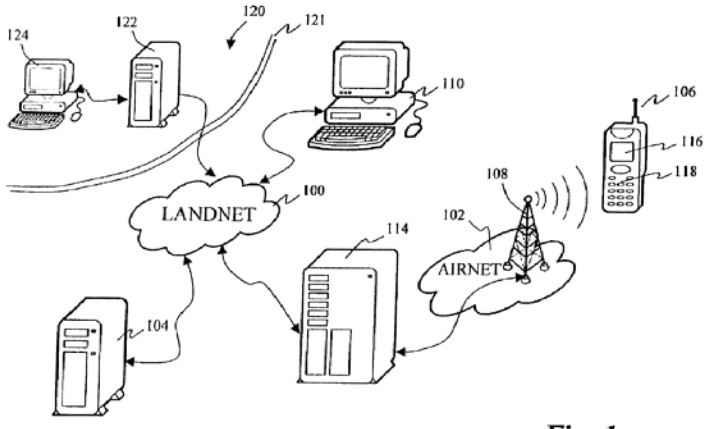

Fig. 1

As shown in figure 1, landnet 100 communicates with airnet 102 through a proxy server 114. The specification explains that "[g]enerally, the communication protocol in airnet 102 is different from that in landnet 100." '240 patent col. 5 ll. 33–34. For example, in one embodi-

ment the communication protocol on the landnet is "the well known HyperText Transfer Protocol (HTTP) or HTTPS," while the airnet's protocol is "Handheld Device Transport Protocol (HDTP)." *Id.* col. 5 ll. 41–58. "Hence, one of the functions proxy server 114 performs is to map or translate one communication protocol to another, thereby mobile station 106 coupled to airnet 102 can communicate with any of the devices coupled to landnet 100 via proxy server 114." *Id.* col. 5 ll. 35–39.

In the claimed system, a proxy server "enable[s]" communication between a wireless network and a landnet. Representative claim 1 is reproduced below:

1. A system comprising:

> a *proxy server* coupled to a wireless network, to enable a plurality of mobile stations on the wireless network to communicate with processing systems on a landnet, the *proxy server* communicating with the mobile stations over the wireless network; and
>
> a fleet server coupled to communicate with the *proxy server*, to store and control access to fleet data, and to authenticate a request from a provisioning entity to push the fleet data to the plurality of the mobile stations;
>
> wherein the *proxy server* pushes the fleet data to the plurality of mobile stations over the wireless network only if the request is authenticated by the fleet server.

Id. col. 13 ll. 49–62 (emphases added). Claim 6, which ultimately depends from claim 1, adds the requirement that "the proxy server comprises an account manager to manage a plurality of *user accounts*, each corresponding

to one of the mobile stations, wherein the proxy server pushes the fleet data to the plurality of mobile stations over the wireless network only if the request is authenticated by the provisioning interface and verified by the account manager." '240 patent col. 14 ll. 22–28 (emphasis added). Claim 27 is an independent claim that similarly involves "verifying the plurality of the mobile stations against a plurality of *user accounts* using the fleet server." *Id.* col. 16 ll. 16–28 (emphasis added).

A.

Unwired argues that the district court's claim construction of "proxy server" improperly imported a limitation into the claims. The court construed "proxy server"[3] to require "mapping or translation functions to enable communication between two networks that could otherwise not communicate." *Unwired*, 2014 WL 7012497, at *7. Unwired concedes that the specification describes proxy servers as enabling otherwise incompatible networks to communicate. But Unwired argues that the proxy server need not be limited to this role. Rather, it contends the proxy server may connect two networks that use the same protocol. It explains that the specification does not rule out the airnet and landnet operating with the same protocol. It argues that, while the specification states that "[g]enerally," the communication protocols are different, *id.* col. 5 ll. 32–33, the use of the term "generally" implies that the landnet and airnet might employ the same communication protocol.

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[3] During the *Markman* hearing, the parties agreed that the Court's construction of "proxy server" would control the construction of "proxy server module." *Unwired*, 2014 WL 7012497, at *1 n.3.

We disagree with Unwired's claim construction argument. The district court properly found that a person of ordinary skill would understand "proxy server," as used in the context of the '240 patent claims, to enable communication between otherwise uncommunicative networks. The claim expressly requires the "proxy server" to "enable a plurality of mobile stations on the wireless network to communicate with processing systems on a landnet." *Id.* col. 13 ll. 50–52. If the wireless network and landnet were already able to communicate—i.e., without the proxy server—the claim language "enable communication" would have no meaning. The claims could have recited "facilitating communication" or "assisting communication," but the patent owner instead limited the proxy server to enabling communication, which, in the context of the patent specification, requires mapping or translation functions. Indeed, as the specification describes, "one of the functions proxy server 114 performs is to map or translate one communication protocol to another, thereby mobile station 106 coupled to airnet 102 can communicate with any of the devices coupled to landnet 100 via proxy server 114." *Id.* at col. 5 ll. 35–36.

Unwired nevertheless contends that the court's construction renders claim 7 meaningless and thus violates the doctrine of claim differentiation. Appellant Br. 58 (citing *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004)). "As this court has frequently stated, the presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim." *Liebel-Flarsheim*, 358 F.3d at 910. Claim 7, which ultimately depends from claim 1, adds a mapper that performs protocol mapping between a first and second communication protocol. The claim adds the following limitations: "wherein the proxy server comprises a mapper to perform protocol mapping from the first communication protocol to the second communication protocol and from the second

communication protocol to the first communication protocol." '240 patent col. 14 ll. 29–33. Unwired argues that the court's construction imports these limitations into claim 1. But Google responds that claim 7 also requires "a mapper," a limitation not present in claim 1 or the district court's construction. We agree. The district court's construction, which we adopt, does not render claim 7 meaningless, as claim 7 does not simply require that the proxy server enable communications between two otherwise uncommunicative networks. At minimum, claim 7 adds a mapper requirement.

B.

Finally, Unwired challenges the court's construction of "user account" in claims 6 and 27 of the '240 patent. The court construed "user account" to mean "an established relationship between a user of a mobile device and a wireless carrier authorizing the mobile device to use the carrier's network." *Unwired*, 2014 WL 7012497, at *16. Unwired argues that a "user account" need not be limited to accounts of mobile devices with wireless carriers, but rather could include other accounts, such as those between mobile devices and corporations, businesses, or even individuals.

Google defends the court's construction on the basis that a person of ordinary skill in the art would understand the claims to describe user accounts associated with a wireless carrier. It reasons that the specification describes a verification process that ensures the mobile stations receive data sent over a wireless network. Google points to the specification's description of an embodiment where a user account includes a "device ID" that is assigned to a mobile device, and a "subscriber ID" that is "typically initiated and authorized by a carrier in a proxy server device 240 as part of the procedures to activate a subscriber account for a mobile station." '240 patent col. 8 l. 66 – col. 9 l. 2. The user ID enables

the system to determine whether the customer has an account with a wireless carrier before pushing the information out to that user. The specification further describes this process of verifying the user's identification with the carrier. It explains that "the selected mobile stations are determined if all are authorized and serviced by the proxy server. Typically, the selected mobile stations are examined against their corresponding user accounts." '240 patent col. 13 ll. 25–28. Google argues that these embodiments suggest that a "user account" is limited to mobile accounts with wireless carriers.

We agree with Unwired, however, that the district court's claim construction improperly excludes at least one disclosed embodiment in the specification. For example, one embodiment describes corporations having mobile fleets that employ corporate user accounts. *Id.* col. 6 l. 66 – col. 7 l. 4. The specification explains that there will be times where corporations wish to directly communicate with particular mobile devices through these accounts. *Id.* col. 1 ll. 47–48. The corporation may wish, for example, "to update a call list to a selective group of [] mobile devices" or "to propagate an urgent proprietary message to its sales team." *Id.* col. 1 ll. 47–58. In this embodiment, corporations directly communicate with mobile users by utilizing "user accounts." This embodiment envisions user accounts that do not correspond to the relationship between the mobile user and the carrier. As such, the district court erred by incorrectly limiting the term "user account" to accounts with carriers. We instead adopt Unwired's construction of "user account" as "an established account with a user of a mobile device."

III.

We turn last to Unwired's contention that the district court misconstrued the terms "reduced image" and "key in the mobile device corresponding to a subarea in the reduced image" in the '087 patent. The '087 patent gen-

erally discloses a method of using a mobile device to display and navigate images having "larger dimensions than that of the [device's] display screen." '087 patent col. 1 ll. 12–13. The patent discusses "transform[ing]" the image into a "reduced version that fits well into the screen," and that "reduced version is displayed on the mobile device." *Id.* col. 2 ll. 13–19. Claim 1 is reproduced below:

> 1. A method for recursively displaying on a screen of a mobile device *an image having dimensions much larger than the dimension of the screen*; the method comprises:
>
> > displaying on the screen of the mobile device a *reduced image* forwarded from a server device, the *reduced image* transformed from the image with respect to a set of parameters associated with the screen;
> >
> > generating a new request when *a key in the mobile device corresponding to a subarea in the reduced image* is activated; and
> >
> > receiving a detailed image of the subarea from the server device when the server device renders the new request.

'087 patent col. 9 ll. 27–39 (emphases added).

A.

The district court construed "reduced image" to mean "an uncropped version of the image with smaller dimensions." *Unwired*, 2014 WL 7012497, at *24. The court adopted this construction over Unwired's proposed construction, which would have defined "reduced image" as "a version of the image with smaller dimensions." *Id.* at *23. The court explained that, while the patent does

not explicitly define the term "reduced image," "the claims and specification discuss a reduced image in the context of preprocessing or transforming an original image for display on a mobile device." *Id.* (internal quotation marks and alterations omitted). The court found that "[t]he intrinsic evidence, however, does not specify whether a reduced image may be produced by cropping an original image." *Id.* The court then looked to extrinsic evidence in the form of an inventor's testimony as to the scope of the term. The inventor testified that "reduced image" did not mean cropping. *Id.* at *24. In light of both the extrinsic and intrinsic evidence, the court adopted Google's proposed construction.

We first note that the district court wrongly relied on the inventor's testimony about his subjective understanding of the meaning of "reduced image." "[I]nventor testimony as to the inventor's subjective intent is irrelevant to the issue of claim construction." *Howmedica Osteonics Corp. v. Wright Med. Tech., Inc.*, 540 F.3d 1337, 1347 (Fed. Cir. 2008). Because this testimony is irrelevant as a matter of law, we do not review the court's findings on this evidence.

We nevertheless agree with the district court that the correct construction of "reduced image" is "an uncropped version of the image with smaller dimensions." *Unwired*, 2014 WL 7012497, at *24. We find that the claims and specification make clear that the image cannot be reduced by cropping. As the court noted, the claimed method reduces the size of a large image so that the mobile device can display the reduced image. The specification describes transforming the size of an image by "preprocessing . . . to reduce or decimate [the] image" to a smaller pixel size. '087 patent, col. 7 ll. 17–18. This transformation shrinks a larger image for display on a small screen, but it does not crop out portions of that image. Read in the context of the specification, we find no indication that the term "reduced image" incorporates a cropped

image. *See Phillips*, 415 F.3d at 1313. We thus agree with the district court's construction of "reduced image."

B.

The court also construed "key in the mobile device corresponding to a subarea in the reduced image" as Google had suggested, requiring it to be "a button, either physical or depicted on the screen, corresponding to a subarea of the reduced image." *Unwired*, 2014 WL 7012497, at *24. Unwired argued that, to the contrary, the key should simply be "a button or touch input corresponding to a subarea of the reduced image." *Id.* But the district court explained that the specification describes keys as buttons, rather than touch inputs generally. It quoted portions of the specification stating that "some of the mobile devices sometimes have no physical keys at all, such as those palm-size computing devices that . . . use soft keys or icons for users to activate them by using a finger or a pseudo-pen." '087 patent col. 4 ll. 40–43. The court then explained that "[t]he specification goes on to clarify that 'unless otherwise specifically described, keys or buttons are generally referred to as either the physical keys or soft keys.'" *Unwired*, 2014 WL 7012497, at *24 (quoting '087 patent col. 4 ll. 43–45). The court concluded that, "[a]lthough these statements indicate that 'key' covers more than a physical button or physical key, they do not suggest that a 'key' includes any form of touch input, as Unwired contends." *Id.* Thus, the court adopted Google's construction for this term. We agree with the court's construction.

C.

Finally, with respect to the '087 patent, Unwired challenges the district court's judgment that claims 17 and 31 are invalid as indefinite under 35 U.S.C. § 112. The court held the preamble term "an image having dimensions much larger than the dimension of the screen" indefinite. Unwired limits its dispute on appeal to the district court's

determination that this term has patentable weight. It does not dispute that this term renders the claim indefinite if it has patentable weight. Claim 17 is reproduced below:

> 17. A method for recursively displaying on a screen of a mobile device *an image having dimensions much larger than the dimension of the screen*, the mobile device having a keypad including a number of keys; the method comprises:
>
> fetching *the image* from a resource on a landnet according to a request from the mobile device; the request comprising an address identifier identifying the resource;
>
> generating from *the image* an image hierarchy starting with a reduced image equally divided into a number of subareas, each of the subareas pointing to a detailed version thereof; and
>
> forwarding the reduced image to the mobile device for display.

'087 patent col. 10 l. 61 – col. 11 l. 6 (emphases added). Claim 31 is reproduced below:

> 31. An apparatus for recursively displaying on a screen of a mobile device *an image having dimensions much larger than the dimension of the screen*; the mobile device having a keypad including a number of keys; the apparatus comprises:
>
> a memory for storing code for a server module; and
>
> a processor coupled to the memory executing the code in the memory to cause the server module to:

> fetch *the image* from a resource on a landnet according to a request from the mobile device; the request comprising an address identifier identifying the resource;
>
> generate from *the image* an image hierarchy starting with a reduced image equally divided into a number of subareas, each of the subareas pointing to a detailed version thereof; and
>
> forward the reduced image to the mobile device for display.

'087 patent col. 12 ll. 25–42 (emphases added).

As we have explained, a term has patentable weight where it "recites essential structure or steps, or if it is necessary to give life, meaning, and vitality to the claim." *Proveris Sci. Corp. v. Innovasystems, Inc.*, 739 F.3d 1367, 1372 (Fed. Cir. 2014) (internal quotation marks omitted). Here, the preamble introduces the term "an image." The term provides antecedent basis for a term in the body of the claims, "the image." As the claims describe, an apparatus fetches the image from the landnet and then, from the image, generates an image hierarchy that includes a reduced image that is forwarded to the mobile device for viewing. As the district court noted, without the preamble term, there is no requirement in the claims that the image be much larger than the dimension of the screen. The court explained that, absent the term, "[t]he claims fail to indicate that the image hierarchy—or the reduced image that it starts with—is a smaller version of the image, or that the image had been reduced in size according to the mobile device's screen." *Unwired Planet LLC v. Google Inc.*, 111 F. Supp. 3d 1120, 1128 (D. Nev. 2015). It explained that the term is "'essential to understand limitations or terms in the claim body'—namely, the size difference between an image and the screen of a mobile device." *Id.* (quoting *Catalina Mktg. Int'l, Inc. v. Coolsav-*

ings.com, Inc., 289 F.3d 801, 808 (Fed. Cir. 2002)). We agree. Not only does "an image" provide antecedent basis for "the image" later in the claims, it also "recites particular structure or steps that are highlighted as important by the specification." *See Proveris*, 739 F.3d at 1372. We thus agree with the court's finding that this has patentable weight.

Because Unwired does not challenge the court's finding that the term is indefinite once given patentable weight, we affirm the court's finding that claims 13 and 17 of the '087 patent are invalid as indefinite.

CONCLUSION

For the foregoing reasons, we modify the court's constructions with regard to the "marker information" and "server node" terms in the '016 patent and agree with the district court's constructions of the remaining challenged terms in that patent. We modify the district court's construction of "user account" in the '240 patent and agree with its construction of the remaining challenged terms. We agree with all of the court's challenged constructions with regard to the '087 patent. And we affirm the court's finding that claims 17 and 31 of the '087 patent are invalid. Thus, we vacate the court's grant of stipulated summary judgment and remand for proceedings consistent with this opinion.

AFFIRMED-IN-PART, VACATED-IN-PART, AND REMANDED

COSTS

No costs.