

UNITED STATES DISTRICT COURT  
DISTRICT OF MASSACHUSETTS

SKYHOOK WIRELESS, INC.,

Plaintiff,

v.

GOOGLE INC.,

Defendant.

CIVIL ACTION  
NO. 10-cv-11571-RWZ

**GOOGLE INC.'S OPPOSITION TO SKYHOOK WIRELESS, INC.'S  
OPENING CLAIM CONSTRUCTION BRIEF**

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## I. INTRODUCTION

There are a dozen claim terms, or closely related groups of terms, at issue before the Court. Skyhook's approach to construing them suffers from several pervasive problems.

First, Skyhook tries to have it both ways with the specification. Skyhook concedes that certain terms like the "reference symmetry" limitations, "arterial bias," and "calculated locations" should be construed with reference to the specification (although it misreads the specification in each case). *See* Skyhook Br. at 17, 21, 23-24. As to other terms, however, Skyhook would unmoor the claims from their context. The Federal Circuit has long held that this is error. *See, e.g., On Demand Machine Corp. v. Ingram Indus., Inc.*, 442 F.3d 1331, 1340 (Fed. Cir. 2006) ("[T]he role of the specification is to describe and enable the invention. In turn, the claims cannot be of broader scope than the invention that is set forth in the specification."); *Bell Commc'ns Research, Inc. v. Vitalink Commc'ns Corp.*, 55 F.3d 615, 621-22 (Fed. Cir. 1995) ("[I]t is legal error to construe a claim by considering it in isolation. A claim must be read in view of the specification of which it is a part."); *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) ("The specification contains a written description of the invention that must enable one of ordinary skill in the art to make and use the invention. For claim construction purposes, the description may act as a sort of dictionary[.]").

Skyhook argues Google's constructions import limitations from the specification. This is incorrect, as we show below. Google's constructions follow recent Federal Circuit case law emphasizing the importance of understanding the claims in context. The Federal Circuit's 2005 en banc *Phillips* decision, for example, overruled the *Texas Digital* line of cases precisely because they focused the claim construction inquiry "on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent. Properly viewed, the 'ordinary meaning' of a claim term is its meaning to the ordinary artisan after reading the entire patent." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1321 (Fed. Cir. 2005) (en banc) (overruling *Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002), and criticizing its elevation of dictionary definitions over the teachings of the specification).

As detailed in Google's opening brief, and further discussed below, the disclosure of the patents-in-suit describe the problems the inventors identified in prior art methods of collecting data about Wi-Fi access point locations (methods they dubbed the "Random Model"), as well as the inventors' solution of conducting an audit of a target area by following pre-planned a route according to the Chinese Postman algorithm. Google Br. at 4-6, 23-30, and *infra* at §§ IV.B, IV.C. Skyhook would have this Court ignore the inventors' description. *But see SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1344 (Fed. Cir. 2001) (the description and embodiments "can provide guidance as to the meaning of the claims, thereby dictating the manner in which the claims are to be construed"); *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Grp., Inc.*, 262 F.3d 1258, 1268 (Fed. Cir. 2001) ("the specification may define claim terms by implication") (internal quotation omitted). Google's constructions go to the proper meaning of the words the inventors chose to describe their invention, as demonstrated by the intrinsic evidence; they do not add new limitations unrelated to the words of the claims. *See Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1252 (Fed. Cir. 1998) (construing the claims in light of the preferred embodiments, where the embodiments were pertinent to the meaning a particular claim term).

Second, Skyhook fails acknowledge the existence of the prosecution histories of the patents-in-suit even though they are a primary source of claim meaning. *See, e.g., Computer Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1378 (Fed. Cir. 2008) ("[T]he prosecution history must always receive consideration in context."). To ignore this key evidence is error.

Third, claim construction is the process of giving terms their meaning as they would be understood by a person of ordinary skill in the art. *Phillips*, 415 F.3d at 1324 . Skyhook's brief is silent as to the experience and qualifications of such a person. Skyhook does not claim, much less prove, that its constructions are consistent with a person of ordinary skill's understanding.

Finally, claim construction is intended to aid the finder of fact. *Funai Elec. Co., Ltd. v. Daewoo Elecs. Corp.*, 616 F.3d 1357, 1366-67 (Fed. Cir. 2010). A number of Skyhook's

proposed constructions merely reshuffle the claim language. This is unnecessary, and unhelpful. The jury is capable of reading the claims closely. If anything, Skyhook’s proposals risk confusion because they distract from the language of the claims themselves—the touchstone of the analysis. *See Alltech, Inc. v. Cenzone Tech, Inc.*, 2007 WL 5793393, at \*8 (S.D. Cal. Jan. 4, 2007) (rejecting construction as “inadequate because it essentially restate[d] the claim language”).

## **II. GOOGLE’S MOTION FOR SUMMARY JUDGMENT OF INDEFINITENESS IS PROPER**

Google asserted that certain limitations are indefinite and not amenable to claim construction in its April 2011 Preliminary Invalidity Contentions. *See* Google Inc.’s Preliminary Invalidity Contentions (Apr. 15, 2011) (Dkt. 27). Google’s opening brief was consistent with that position, and not the surprise suggested by Skyhook. Google has consistently asserted this position, and been clear that the indefiniteness problem needed to be addressed in claim construction. On July 25, 2011, Google identified each of the indefinite terms as a term to be addressed as part of the claim construction process, a position it reiterated on August 15, and during the parties’ September 2 conference to discuss the terms at issue. Declaration of Catherine R. Murphy, Ex. B. Skyhook never objected to the presentation of indefiniteness as part of the claim construction process. *Id.* ¶¶ 5-7. On September 14, Google again reached out to Skyhook to meet and confer regarding the indefiniteness issues, and Skyhook reiterated its disagreement. *Id.*, Ex. C.<sup>1</sup> Google’s September 14 request that the Court find several terms indefinite, and consequently invalid, was not a fresh contention, and cannot have surprised Skyhook.

The Federal Circuit has made clear that “[i]ndefiniteness is a matter of claim construction[.]” *Praxair, Inc. v. ATMI, Inc.*, 543 F.3d 1306, 1319 (Fed. Cir. 2008). Where a

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<sup>1</sup> The parties have continued to discuss possible areas of compromise, and since the filing of their opening briefs have agreed on stipulated constructions of “a weighted centroid position” (‘988/3), “simple signal strength weighted average model” (‘245/6), and “triangulation technique” (‘245/8). Exhibit A to the Murphy Declaration summarizes the parties’ respective positions.



claim is “insolubly ambiguous,” such that “reasonable efforts at claim construction prove futile,” it is indefinite. *Exxon Research & Eng’g. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001). The same principles of claim construction apply regardless of a court’s ultimate conclusion that the term can or cannot be construed. *Praxair*, 543 F.3d at 1319. “A determination of claim indefiniteness is a legal conclusion that is drawn from the court’s performance of its duty as the construer of patent claims.” *Personalized Media Commc’ns, LLC v. Int’l Trade Comm’n*, 161 F.3d 696, 705 (Fed. Cir. 1998).

Skyhook’s apparent expectation that Google would *not* present indefiniteness to the Court for resolution and judgment is puzzling. A finding that a claim term is indefinite necessarily means that the claim or claims in which it appears are invalid. *See, e.g., Praxair*, 543 F.3d at 1319. Because indefiniteness, like claim construction, is an issue of law for the Court to decide, *id.* at 1319, the legal test, evidence, and burden of proof are no different when indefiniteness is raised in a summary judgment motion or in a brief solely directed to claim construction. It would make little sense for Google to present the indefiniteness issues to the Court, but not seek judgment.

### **III. THE PATENTS-IN-SUIT ARE INDEFINITE, AND THEREFORE INVALID.**

A patent must put the public on notice of what they can or cannot do without violating the patent claims. *See, e.g., Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005). If it does not, it is indefinite and invalid under 35 U.S.C. § 112, ¶ 2. *Id.*

#### **A. The ‘988 and ‘694 Patents are Indefinite and Invalid Because They Claim Both a Database and a Method of Updating It.**

As Google demonstrated in section III(A) of its opening brief, claim 1 of the ‘988 patent and claim 1 of the ‘694 patent cover both a database (an apparatus) and a particular method of data collection. Because the claims require the database to have calculated location information for “substantially all Wi-Fi access points in the target area,” that methodology must be used not only to create the database, but also to keep it up to date. Because the claims of the ‘988 and

‘694 patents purport to cover both an apparatus and a method, they are invalid under § 112, ¶ 2. *IPXL Holdings, LLC v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005); *Rembrandt Data Techs., LP v. AOL, LLC*, 641 F.3d 1331, 1339 (Fed. Cir. 2011).

Skyhook concedes, as it must, that the claims themselves require action; Skyhook even describes the taking of readings of Wi-Fi access points as “*the claimed technique.*” Skyhook Br. at 19 (emphasis added). But contrary to Skyhook’s assertions, “recording multiple readings of the Wi-Fi access point at different locations around the Wi-Fi access point” is not a characteristic of the “calculated position information”; rather, it is an affirmative step that must be taken in order to meet the requirements of the claims. See *HTC Corp. v. IPCom GMBH & Co.*, 751 F. Supp. 2d 1, 32 (D.D.C. 2010) (holding as indefinite and thus invalid claims that recited “an apparatus and six method steps the apparatus performs, directly relating to the functioning of the apparatus”); *Ariba, Inc. v. Emptoris, Inc.*, 2008 WL 3482521, at \*6-8 (E.D. Tex. Aug. 7, 2008) (finding patent claim indefinite because it covered both an apparatus (bidding device) as well as a method (“wherein a bid submitted by the potential seller operating the bidding device is compared to the corresponding bid ceiling”)) (emphasis added)).

The intrinsic evidence uniformly emphasizes the required data collection methodology. The claim language specifies that the data underlying the calculated locations be “obtained from recording multiple readings of the Wi-Fi access point at different locations around the Wi-Fi access point”—a requirement that could not be met except by actually taking the readings while traversing the target area in the specified way. The Abstract of each patent states that it pertains to a “method of building [a] location beacon database.” Manning Decl., Exs. C, D.<sup>2</sup> And the applicants’ statements to the PTO are equally clear that the database claims require particular acts. See, e.g., Ex. G at GSHFED188 (“Collecting multiple readings of Wi-Fi access points in a

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<sup>2</sup> Unless otherwise indicated, all cited exhibits were filed as attachments to the September 14, 2011 Declaration of Susan Baker Manning (Dkt. 45). As in its opening brief, when discussing terms that appear in multiple patents, Google cites to the ‘988 patent (Exhibit C) for portions of the specification that are part of the disclosure of every patent-in-suit.

systematic fashion, as described in the application, provides reference symmetry within the target area.”), GSHFED189 (“[B]y performing a planned audit, and avoiding arterial bias, applicants at least achieve more complete information about access points in the target area, higher quality estimates of access point locations, and reference symmetry.”) (also identifying this as differentiating the invention from the prior art of record); *HTC*, 751 F. Supp. 2d at 32 (apparatus claim included method steps where the applicants had distinguished the prior art as “completely different from *the claimed process*”) (emphasis in original).

**B. The “Reference Symmetry” Limitations are Unintelligible.  
(‘988 patent, claim 1 and ‘694 patent, claim 1)**

Skyhook concedes that “reference symmetry” does not have a plain and ordinary meaning in the art, and must therefore be given a definition based on the intrinsic evidence. *Skyhook Br.* at 17, 21. That is true, as far as it goes. The problem, however, is that the claim language and intrinsic evidence are contradictory.

The ‘988 patent requires “recording multiple readings of the Wi-Fi access point at different locations around the Wi-Fi access point so that *the multiple readings have reference symmetry* relative to other Wi-Fi access points in the target area.” The claim plainly requires that the raw scanning data “have reference symmetry,” and have it “relative to other Wi-Fi access points in the target area.” As previously shown, it is anyone’s guess what that means. *Google Br.* at 12-13; *see also* Acampora Decl. ¶¶ 74-76. The specification does not describe what it would mean for raw scanning data to “have reference symmetry” relative to multiple access points; it describes only Wi-Fi access points having reference symmetry relative to a single point, specifically a user device. *Ex. C* at 2:53-57, 9:55-10:4, Figs. 5, 6; *Ex. G* at GSHFED188.

Skyhook essentially concedes that claim 1 is unintelligible as written. Under the guise of “clarifying” it, Skyhook asks the Court to rewrite it by replacing the word “have” with “produce,” such that the scan data need not “*have* reference symmetry” but rather need only “*produce* reference symmetry.” *Skyhook Br.* at 23-24. This is impermissible. *K-2 Corp. v.*

*Salomon SA*, 191 F.3d 1356, 1364 (Fed. Cir. 1999) (“Courts do not rewrite claims; instead, we give effect to the terms chosen by the patentee.”).<sup>3</sup> In *Chef America*, for example, the Federal Circuit declined to change the word “to” to “at” even though under the claim as drafted and issued, “the patented process could not perform the function the patentees intended.... [W]e have repeatedly declined to rewrite unambiguous patent claim language[.]” *Chef Am., Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1375 (Fed. Cir. 2004). This Court should decline as well.

Moreover, the dictionary definition of “have” is not “to produce.” *The Cassel Dictionary and Thesaurus*, upon which Skyhook relies, gives more than 40 different definitions for “have,” the first of which is “to possess.” Somait Decl., Ex. 10 at 510. The same thesaurus gives even more synonyms for “have” in various contexts, including the obviously inapplicable one Skyhook quotes: “bear, be delivered of, bring into the world, give birth to, produce.” *Id.*; see also *Phillips*, 415 F.3d at 1319-22 (overturning the *Texas Digital* dictionary-based approach to claim construction as overly focused on the meaning of claim terms in the abstract, rather than in the context of the patent). In this context, “have” is not ambiguous; it plainly means to possess. Somait Decl., Ex. 10 at 510; see also, e.g., *Freeman v. Gerber Prods. Co.*, 357 F. Supp. 2d 1290, 1305 (D. Kan. 2005) (finding that “‘having’ means ‘something one possesses’”).

Even Skyhook’s proposed rewritten version of the claim is still vague, because it is unclear what it would mean for scan data to provide reference symmetry relative to “other Wi-Fi access points.” The specification provides no insight, because it always speaks of the Wi-Fi access points having reference symmetry relative to a user device. See Google Br. at 12 (citing evidence). The passages of the specification Skyhook cites do not show that the raw scan data

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<sup>3</sup> Skyhook’s proposed insertion of “produce” would essentially revert claim 1 to the language it had prior to Skyhook’s amendment during prosecution. As originally filed, claim 1 required “said calculated position information is obtained from recording multiple readings of the Wi-Fi access point *to provide* reference symmetry.” Ex. G at GSHFED183. In order to overcome the Examiner’s rejection of the claims, Skyhook amended claim 1 to require “said calculated position information is obtained from recording multiple readings of the Wi-Fi access point *at different locations around the Wi-Fi access point so that the multiple readings have* reference symmetry relative to other Wi-Fi access points in the target area.” *Id.* (emphasis added).

provides reference symmetry relative to other Wi-Fi access points. Ex. C at 2:55-56 (giving an example of a situation in which “there is no way to provide reference symmetry”), 8:56-59 (discussing the advantages of Chinese Postman, but not discussing reference symmetry), 9:4-21 (same) (all cited in Skyhook Br. at 23). The claim as issued, and even as Skyhook would rewrite it, is incomprehensible. It is therefore invalid. *Datamize*, 417 F.3d at 1347 (“claims not amenable to construction or insolubly ambiguous are indefinite”) (internal quotations omitted).

Skyhook would rewrite the claim language of the ‘694 patent as well. The phrase “the database records for substantially all Wi-Fi access points in the target area provide reference symmetry within the target area” is indefinite because, among other things, it is unknowable what within the target area is “provide[d] reference symmetry”; there is no point of reference by which symmetry is to be judged. Skyhook asks the Court to fix that fundamental flaw by construing “reference symmetry” so that the user device is always the reference point by which symmetry is judged. While it is true that the specification describes the user device as one possible point of reference, the claims do not, and in fact the ‘988 patent is plainly contrary. That is why, as Google has previously explained, the discussion of the specification is inconsistent with what the claims actually say, and therefore cannot be used to rescue the claims from indefiniteness. *See* Google Br. at 12-13.

If the Court is inclined to construe “reference symmetry” standing alone, Google respectfully requests that its proposed alternative construction be adopted. If it means anything, the specification teaches that “reference symmetry” means “the balanced or symmetrical distribution of numerous access points on all sides of the user device and within range of the user device’s WiFi radio.” *See* Ex. C at 9:55-57 (“Significant errors occur when there are an insufficient number of reference points or when the reference points lack *balance or symmetry* around the user.”) (emphasis added); Ex. G. at GSHFED188 (“By using a collection of location data that is symmetric, a mobile device attempting to calculate its location typically encounters physical locations in which there are *numerous* access point locations *on all sides* of the device

within range of the device’s Wi-Fi radio.”) (emphasis added). Although Skyhook criticizes the terms “balanced,” “numerous,” and “on all sides” as unclear, all accurately capture what it is to be symmetrical. *See Pause Tech. LLC v. TiVo, Inc.*, 419 F.3d 1326, 1333 (Fed. Cir. 2005) (“courts are free to use words that do not appear in the claim so long as ‘the resulting claim interpretation ... accord[s] with the words’ of the claim).

Skyhook’s definition of “reference symmetry” is inconsistent with the claims, and fails on its own terms. First, under Skyhook’s proposal, “the calculated positions of observed Wi-Fi access points in range of the user *tend to be* distributed around the user”—which is apparently another way of saying that the calculated positions of the Wi-Fi access points might or might not be distributed around the user. The phrase “tend to be” is vague, and devoid of any objective criteria that might aid the fact finder. *Funai*, 616 F.3d at 1366-67 (“The criterion [for claim construction] is whether the explanation aids the court and the jury in understanding the term as it is used in the claimed invention”); *Datamize*, 417 F.3d at 1350 (“Some objective standard must be provided in order to allow the public to determine the scope of the claimed invention”).

Second, Skyhook would require the Wi-Fi access points to “tend to be distributed around the user with *reduced* arterial bias” (emphasis added). This construction thus suffers from the same flaw as Skyhook’s proposal for “avoid(s) arterial bias”: it leaves the fact finder to wonder reduced relative to what, and by how much? *See Google Br.* at 14-16; *infra* at § III.C. Third, Skyhook is incorrect to suggest that “reference symmetry” is merely a reduction in arterial bias. The patents describe these out as separate concepts, and they are separate requirements in the claims. The function of reference symmetry may, in certain circumstances, be to help overcome arterial bias, but what it actually *is* differs from what it *does*. At the end of the day, however, the understanding of “reference symmetry” implicit in the specification cannot be reconciled with the language of the claims. The ‘988 and ‘694 patents are therefore indefinite and invalid.

**C. “Avoid[s] Arterial Bias”  
(‘988 patent, claim 1 and ‘694 patent, claim 1)**

“Arterial bias” is a phrase coined by the inventors to describe a problem they purport to have first identified. *See* Google Br. at 25-26; *infra* at § IV.B; Ex. G at GSHFED189. The patents teach that “arterial bias” is the deviation of the calculated position information away from its actual position and toward heavily trafficked roads as a result of the tendency of random scanning to result in a greater number of scans from heavily trafficked roads. *See* Google Br. at 25-26. However, Skyhook’s patents do not give any reliable way to measure what it means to “avoid arterial bias.” The patents teach that the amount of “arterial bias” varies even when using the Random Method of data collection. Ex. C at Fig. 3; *infra* at § IV.C. The specification fails to describe the amount of avoidance necessary to practice the claimed invention.

“Avoid” is not a term of degree, and should not be construed as “to reduce” as urged by Skyhook. If construed as anything other than “*eliminates* arterial bias,” however, “*avoids* arterial bias” is properly viewed as a term of degree. A patentee’s attempt to expand claim scope with hedging qualifiers comes with a burden of providing an objective standard, and a severe risk of invalidity if he or she does not.

When a word of degree is used the district court must determine whether the patent’s specification provides some standard for measuring that degree ... [i.e.,] a court must determine whether the patent’s specification supplies some standard for measuring the scope of the phrase.

*Datamize*, 417 F.3d at 1351 (internal quotation omitted). Failing such an objective standard, the claim is invalid. *Id.*; *see also Halliburton Energy Servs., Inc. v. M-I, LLC*, 514 F.3d 1244, 1251 (Fed. Cir. 2008) (“Even if a claim term’s definition can be reduced to words, the claim is still indefinite if a person of ordinary skill in the art cannot translate the definition into meaningfully precise claim scope.”).

Skyhook’s construction emphasizes the problem of where to draw the line, rather than solving it. In any case, “reduce” is not the ordinary meaning of “avoid.” Skyhook’s own dictionary definition (“to prevent the ... effectiveness of”) is contrary to a mere reduction of

arterial bias, and rather supports Google’s alternative construction “eliminates arterial bias.” Somait Decl. Ex. 9 at 80; *see also* Manning Decl., Ex. P (defining “avoid” as “to make, become, or be empty,” to “rid (of),” “[t]o make void or of no effect,” or “[t]o prevent”); Ex. Q (to avoid is “to prevent the occurrence of”). Although the specification once references “reduced location bias,” Ex. C at 10:2, it elsewhere uses the same absolute terminology as the claims: “avoid arterial bias.” *Id.* at Abstract, 4:39, 5:38, 8:29-30. The purpose of the Chinese Postman driving methodology is to ensure that there is “no bias to any street” in the data collection, and complete coverage of the target area. Ex. C at 8:28-59. That too supports the conclusion that, if the term is sufficiently concrete to avoid indefiniteness, it means that arterial bias is eliminated.

**D. The “Logic” Terms are Means-Plus-Function Limitations that are Indefinite for Failure to Disclose a Corresponding Structure (‘988 patent, claims 1-3).**

“Logic” is not a structure. Although the “logic” terms reference a function to be performed by the “logic,” none recite a specific structure for doing so. They are therefore means plus-function limitations, subject to the requirement of 35 U.S.C. § 112, ¶ 6. *See* Google Br. at 17-18. In *Visual Networks*, for example, the claims at issue recited “logic for determining” and “logic for establishing” certain functions. *Visual Networks Operations, Inc. v. Paradyne Corp.*, 2005 WL 1411578, at \* 28-31 (D. Md. June 15, 2005). The court held that the claims were means plus function limitations as they failed to recite sufficient structure for performing the described functions. *Id.* at \*29. The court reasoned, “Logic can be implemented in computer code, in hardware, or in some combination of both, but, *logic, itself does not constitute a structure or device.*” *Id.* at \*30 (emphasis added); *see also* *ABB Automation, Inc. v. Schlumberger Res. Mgmt. Servs.*, 2003 WL 1700013, at \*1 (D. Del. Mar. 27, 2003) (“‘logic’ does not recite sufficient structure to avoid means-plus function analysis”).

Contrary to *ABB Automation* and *Visual Networks*, Skyhook argues that “logic” conveys sufficient structure to avoid § 112, ¶ 6. Skyhook Br. at 27. Skyhook’s position, however, is contradicted by certain of the dictionary definitions it relies upon, which describe “logic” in



functional, rather than structural, terms. *Id.* (citing *Wiley Elec. & Elec. Eng'g Dictionary*, which defines logic as “[t]he functions performed by a computer,” and *The Am. Heritage College Dictionary*, which defines logic as “nonarithmetic operations”).

Moreover, the cases relied upon by Skyhook to argue that “logic” conveys sufficient structure are inapposite. In *3Com Corp. v. D-Link Sys., Inc.*, 473 F. Supp. 2d 1001, 1016-17 (N.D. Cal. 2007), the patent disclosed “dedicated hardware logic.” The *3Com* court compared the “dedicated hardware logic” to the “circuit” at issue in *Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1320 (Fed. Cir. 2004), and held the claim recited a sufficient structure. *Id.* at 1017 (“The difference between the *Linear* term “circuitry” and the “logic” term *in this case* is not significant.”) (emphasis added). The logic at issue in this case, however, is not akin to a circuit, as Skyhook argues, and therefore Federal Circuit law regarding a “circuit” is not relevant. The logic at issue here is more similar to the logic at issue in *ABB Automation and Visual Networks* where the claims were to, for example, “logic for calculating,” “logic for designating,” and “logic for determining.” 2003 WL 1700013, at \*1; 2005 WL 1411578, at \*28-30. In those cases, the court held that “‘logic’ does not recite sufficient structure to avoid means-plus-function analysis.” *Id.* The other cases Skyhook relies upon are similarly inapplicable. *Diagnostics Grp., LLC v. Benson Med. Instruments Co.*, 2005 WL 715935, at \*10 (D. Minn. Mar. 28, 2005), is irrelevant because whether the claim was subject to § 112, ¶ 6 was not before the court. Skyhook’s reliance on *Rowe Int’l Corp. v. Ecast, Inc.*, 586 F. Supp. 2d 924 (N.D. Ill. 2008) is similarly misplaced. There, the claim specified that the “instructions” were located within a memory, a well-known structure. *Id.* at 945.

Skyhook argues that “logic” means “software and/or hardware.” Br. at 28. This proposed construction, however, does not recite a sufficient structure to avoid applicability of § 112, ¶ 6. See *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1536 (Fed. Cir. 1991) (“The recitation of some structure in a means plus function element does not preclude the applicability of section 112(6).”). Claiming generic “software and/or hardware” to perform various functions

is little different from reciting a “means” to perform the functions. *Id.* (“[T]he structural description in the joining means clause merely serves to specify the function of that means. The recited structure tells only what the means-for-joining *does*, not what it *is* structurally.”) (emphasis in original). Because each “logic” limitation is claimed in purely functional form, each is governed by § 112, ¶ 6.<sup>4</sup>

**E. “Rules” and “Predefined Rules” in the ‘897 Patent are Indefinite.**

Skyhook’s proposed constructions offer circular definitions that include the terms “predefined rules” and “rules” rather than addressing their meaning.<sup>5</sup> In its brief, however, Skyhook contends that “predefined rules” should be construed as “determining in advance a method for solving a class of problems.” Skyhook Br. at 35.

Even if that definition were incorporated into Skyhook’s proposed constructions, the claim still would say nothing at all about what the claimed rules might actually be. The claims have no information about what a person of ordinary skill in the art should do to determine whether an observed access point should be included or excluded from the set of access points used for location; the person of ordinary skill in the art simply has to figure this out for himself or herself. Skyhook’s proposed construction for “rules to determine a reference point and to compare the recorded location information for each of the observed Wi-Fi access points to the reference point” is similarly flawed, as it fails to identify any criteria for determining a reference point or for comparing the recorded information to that reference point.

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<sup>4</sup> As Google has shown, the specification fails to disclose any structure capable of performing the function of the “logic” claims, and accordingly, the “logic” terms are invalid as indefinite. Google Br. at 18-21. Skyhook did not address this issue in its brief. Skyhook’s proffered constructions of the various recited functions are either erroneous (*e.g.*, Skyhook’s claim that “data records” are added to the database, Skyhook Br. at 29, when the claim language makes it plain that it is calculated position information that is added to the database), or an unhelpful rearrangement of the claim language.

<sup>5</sup> Skyhook’s constructions are also unavailing because they merely reshuffle the claim language. See *Alltech*, 2007 WL 5793393, at \*8; *Funai*, 616 F.3d at 1366 (“The criterion [for claim construction] is whether the explanation aids the court and the jury in understanding the term as it is used in the claimed invention”).

A patent must both enable and provide a written description for the full scope of the claims. 35 U.S.C. § 112, ¶¶ 1, 2. Accordingly, the claims cannot be construed to cover any and every possible “rule”—that would render the ‘897 patent invalid. *See Alza Corp. v. Andrx Pharms., LLC*, 603 F.3d 935, 940 (Fed. Cir. 2010); *Ariad Pharm., Inc. v. Eli Lilly and Co.*, 598 F.3d 1336, 1358 (Fed. Cir. 2010) (en banc); *On Demand*, 442 F.3d at 1340. The claims leave a person of ordinary skill in the art to guess at what the relevant rule is (or should be) and why, and therefore fail to set out the metes and bounds of the claim.

**F. The Requirement of the ‘245 Patent that the Algorithm be “Suited” to the Number of Identified Wi-Fi access Points Calls for an Entirely Subjective Determination.**

As Google showed in its opening brief at 22-23, the term “said chosen algorithm being suited for the number of identified Wi-Fi access points” is indefinite because it leaves the person of skill in the art to guess at which algorithm(s) is (are) “suited” for a particular number of identified Wi-Fi access points—and thus to guess at the metes and bounds of the claims. The ‘245 patent is therefore invalid. *Datamize*, 417 F.3d at 1350; *Halliburton*, 514 F.3d at 1251.

Skyhook would dodge the issue entirely. First, it contends the claim language is sufficiently clear that it need not be construed at all. But second, Skyhook’s construction is effectively a restatement of the claim language. In particular, Skyhook’s proposed construction ignores the issue before the Court by proposing to construe “suited” as “suited.” Although Skyhook discusses a dictionary definition of “suited” as “[t]o be fitted or adapted to,” Skyhook Br. at 11, that definition just restates the subjective inquiry, without solving the ambiguity. The problem with the ‘245 patent is not that the term “suited” in isolation is meaningless; the problem is that the scope of the claims is unclear because the ‘245 patent does not give any criteria by which the suitability of an algorithm vis-à-vis the number of access points might be judged. *Datamize*, 417 F.3d at 1350; *Halliburton*, 514 F.3d at 1251.

*Orthokinetics*, upon which Skyhook relies, is a very different case. There, the Federal Circuit held definite a requirement that the patented travel chair have a “front leg portion [] so

*dimensioned* as to be insertable through the space between the doorframe of an automobile and one of the seats thereof.” *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1575-76 (Fed. Cir. 1986) (emphasis added). Unlike “suited” here, the “so dimensioned” requirement was not a subjective or arbitrary one; to the contrary, the Federal Circuit credited expert testimony that persons of skill “would easily have been able to determine the appropriate dimensions,” *id.* 1576, and held “[t]he phrase ‘so dimensioned’ is as accurate as the subject matter permits, automobiles being of various sizes,” *id.* at 1576. The Federal Circuit distinguished its holding in *Orthokinetics* “that an objective definition encompassed by the claim term ‘so dimensioned’ could be applied to innumerable specific automobiles,” from its holding in *Datamize* that a term lacking any “workable objective standard” was indefinite because it was “completely dependent on a person’s subjective opinion.” *Datamize*, 417 F.3d at 1350.

In so holding, the *Datamize* court held that the subjective term in that case required an analysis similar to that given words of degree: does “the patent’s specification provide[] some standard for measuring that degree”? *Id.* at 1351. Here, the specification fails to give the inquiry any concreteness. The specification twice states that the determination of which algorithm to use is based on either the number of Wi-Fi access points, or on the user application making the request. ‘245 patent, 5:45-48, 7:11-13. But those passages—the only parts of the specification Skyhook cites—give no hint as to how the number of Wi-Fi access points influences that determination, much less how one might judge whether an algorithm is “suited.”

**IV. THE PROPER CONSTRUCTION OF CERTAIN DISPUTED CLAIM TERMS**

**A. “Target area” (‘988 patent, claim 1; ‘694 patent, claim 1; 245 patent, claim 1)**

Google’s Position	Skyhook’s Position
A pre-identified geographic region throughout which a shortest route is planned along all drivable roads.	A targeted geographic area.

Skyhook’s construction of “target area” as “a targeted geographic area” is essentially a non-definition. It does not aid the trier of fact, and does not engage as to the disputed issues

between the parties. *Funai*, 616 F.3d at 1366-67; *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (purpose of claim construction is to resolve “disputed meaning and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement”).

There are two disputed issues with regard to “target area.” First, Google’s definition makes it clear that the “target area” must be identified prior to scanning. The point of identifying a target area is to plan a driving route to conduct an “audit” for Wi-Fi access points—something that cannot be done without identifying the target area up front. Google Br. at 24 (discussing Ex. C at 8:29-59 and Ex. G at GSHFED187-89). Skyhook declined in its brief to say whether it contends that “target area” can be identified after the fact. A patentee’s preference for keeping its options open does not change the fact that this is the time to give the terms definition, and resolve such ambiguities. *Markman*, 52 F.3d at 986.

Second, the “target area” is the area through which the shortest route is planned along all drivable roads. Skyhook’s simplistic argument that “an area that is targeted is, by definition, a target area” misses the mark because the patents teach what it is to target an area for purposes of practicing the invention: it is to “identify[] a target region for coverage and then us[e] the Chinese Postman routing algorithm for planning the vehicle route.” Ex. C at 8:41-44; *see also id.* at 7:37-44 (vehicles “follow a programmatic route through target scan areas”); 8:28-59 (using preplanned route addresses arterial bias); Ex. G at GSHFED187-89 (same).<sup>6</sup> *See Curtiss-Wright Flow Control Corp. v. Velan, Inc.*, 438 F.3d 1374, 1379 (Fed. Cir. 2006) (construction of term had to take into consideration specification’s explanation of purpose of the invention).

**B. “Arterial bias” (‘988 patent, claim 1 & ‘694 patent, claim 1)**

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<sup>6</sup> Skyhook argues that there is more to planning a driving route than Chinese Postman because the specification refers to the “develop[ment] of routing algorithms that include every single street in the target area[.]” Ex. C at 8:28-29 (Skyhook’s emphasis). That transitional sentence is followed by an extended discussion of Chinese Postman. *Id.*, 8:30-54. There is no suggestion that the inventors actually developed other approaches to route planning, and none are disclosed.

Google's Position	Skyhook's Position
The deviation of the calculated position information for a Wi-Fi access point toward heavily trafficked roads and away from the actual geographic location of the access point due to the tendency of random scanning to result in a greater number of scans from heavily trafficked roads.	The deviation of the calculated position information for a Wi-Fi access point towards heavily trafficked roads and away from the actual geographic location of the access point.

“Arterial bias” does not have an ordinary meaning outside the context of Skyhook’s patents. Acampora Decl. ¶ 78. It is not a term known in the art, because it is a problem the inventors purportedly were the first to identify. *Id.*; Ex. G at GSHFED189 (“The application describes the discovery of the arterial bias problem[.]”); GSHFED186 (distinguishing the prior art as “silent regarding any particular appreciation that the technique or method used to gather Wi-Fi access point observations affects the quality of the calculated position of the Wi-Fi access points”). The patents and their prosecution histories are therefore the only possible source of information about what “arterial bias” means. *Irdeto Access, Inc. v. Echostar Satellite Corp.*, 383 F.3d 1295, 1300 (Fed. Cir. 2004).

As Skyhook concedes, the specification teaches that “arterial bias” results from random scanning. Skyhook Br. at 18. That is the intrinsic evidence’s only teaching about the source of “arterial bias.” *See* Ex. C at 3:12-18, 8:6-27, 9:57-61, Figs. 3 & 5; Ex. G at GSHFED187-89. Skyhook nevertheless suggests that “arterial bias” could be the result of “other possible causes, such as incomplete or unbalanced systematic scanning.” Skyhook Br. at 18. But “incomplete or unbalanced systematic scanning” is exactly what the patent describes as the Random Method. *See* Ex. C at 8:2-27 (Random Model leads to excessive, or unbalanced, scanning of main roads and incomplete or no scanning of other streets, thus resulting in arterial bias); Fig. 3.

The patents are directed to solving a problem the inventors perceived in commonly used Wi-Fi data collection methodologies—a problem they identified and dubbed “arterial bias.” Skyhook’s definition should be rejected, and Google’s adopted, because only Google’s proposed construction properly identifies what the patents teach “arterial bias” actually is: the deviation of

the calculated position information “toward heavily trafficked roads and away from the actual geographic location of the access point *due to the tendency of random scanning to result in a greater number of scans from heavily trafficked roads.*”

**C. The Location Terms: “calculated position information” (‘988/1 and ‘694/1), “calculated positions of the Wi-Fi access points” (‘988/3), “calculated locations” (‘245/1, 2), and “recorded location information” (‘897/1, 3)**

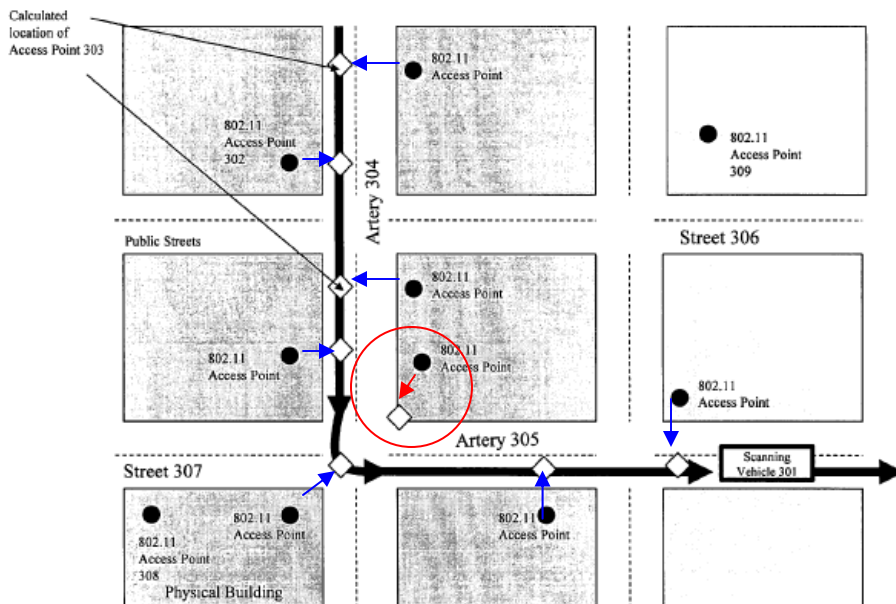
Google’s Position	Skyhook’s Position
<p>The physical location (<i>i.e.</i>, latitude and longitude) attributed to each Wi-Fi access point determined mathematically from readings recorded along a shortest planned route throughout all drivable roads in the target area (<i>i.e.</i> by following the Chinese Postman routing algorithm), that avoids arterial bias and meets the stated reference symmetry criteria. The “calculated position information” cannot be based on randomly, or non-systematically, collected readings of Wi-Fi access points.</p>	<p>Estimated physical location(s) of Wi-Fi access points calculated using characteristics of signals transmitted by such Wi-Fi access points.</p> <p>Estimated physical position(s) of the observed Wi-Fi access points calculated using characteristics of their transmitted signals.</p>

The parties essentially agree that the calculated locations must include the physical location of the Wi-Fi access points as determined based on scan data, but part ways over the nature and collection of the underlying data. The character of calculated locations depends on how the scan data is collected—as shown by the claims, the common disclosure of every patent, and the prosecution histories of the ‘988 and ‘694 patents. The calculated locations cannot be based on scan data from the disparaged and disclaimed Random Method. Google Br. at 26-30.

Skyhook concedes that the teachings of the specification are essential to any proper construction of the Location Terms. Skyhook Br. at 7 (justifying its own construction based on the specification). Skyhook nevertheless criticizes Google’s reliance on the specification, and accuses Google of impermissibly reading in limitations. In fact, Google’s proposed construction necessarily and properly relies on the intrinsic evidence to resolve the ambiguity of the claims themselves. *See Renishaw*, 158 F.3d at 1252. The *Honeywell* case is directly on point. There, the Federal Circuit held that the term “electrically conductive fibers” did not include carbon

fibers even though carbon fibers are electronically conductive, and the specification did not set out an express definition of the claim phrase. *Honeywell Int'l, Inc. v. ITT Indus., Inc.*, 452 F.3d 1312, 1320 (Fed. Cir. 2006). Because the specification criticized the use of carbon fibers, “the written description has gone beyond expressing the patentee’s preference for one material over another. Its repeated derogatory statements concerning one type of material are equivalent of a disavowal of that subject matter from the scope of the patent’s claims.” *Id.* (also stating that the patentee’s argument that the claims should not be limited to an embodiment “misse[d] the point”). Just as the claims in *Honeywell* could not be read to cover disparaged technology, here the claims cannot be construed to cover calculated location information based on the Random Method of data collection that the inventors criticized and distinguished.

Figure 3: Example scanning scenario showing arterial bias



’988, ’694 & ’295 patents, Fig. 3 showing the Random Method of data collection (annotated to show arterial bias in the calculated location for each Wi-Fi access point (blue), including the reduced arterial bias shown for an access point scanned multiple times from different sides (red))

Under Skyhook’s construction, the calculated locations could be based on any data “obtained from recording multiple readings of the Wi-Fi access point at different locations around the Wi-Fi access point” including from the Random Method. This is incorrect because



in the disparaged and distinguished Random Method of data collection, multiple readings of a single Wi-Fi access point will be recorded at different locations around that access point. Ex. C at 7:55-8:27. Figure 3, for example, “describes the challenge of the random model.” Ex. C at 7:64. It shows that the scanning vehicle will take multiple readings of the access points, and will do so from different locations as it travels. *See also id.* at 8:20-21 (the scanning vehicle scans “continuously” while driving). Figure 3 also shows that the calculated location of the Wi-Fi access point nearest the corner where the scanning vehicle turns has less arterial bias than other access points—the obvious result of multiple scans from different sides.

Figure 11 also shows that in the “Random Scanning Model” multiple readings of an access point are taken from different surrounding locations. But Figures 3 and 11 show the problem the inventors were trying to solve; the Random Scanning Model scenarios depicted cannot fall within the scope of the claims—even if under Skyhook’s reading they show “recording multiple readings of the Wi-Fi access point at different locations around the Wi-Fi access point”—because the inventors unambiguously distinguished their invention from location systems that use the Random Model of data collection. *Honeywell*, 452 F.3d at 1320.

A broad reading of “recording multiple readings of the Wi-Fi access point at different locations around the Wi-Fi access point” cannot be reconciled with the teachings of the specification. *Phillips*, 415 F.3d at 1315 (“[C]laims must be read in view of the specification, of which they are a part.”) (quotations, citation omitted). To understand that phrase, and therefore the Location Terms, a person of skill in the art must turn to the specification’s teachings. Those teachings are consistent and clear. In contrast to the criticized Random Model, the inventors described their invention as using routing algorithms such as Chinese Postman to “calculate the most efficient driving route for covering every single street in a target area” and to thereby “avoid arterial bias in the resulting collection of data.” Ex. C at 8:28-34; *see also id.* at 7:37-42 (vehicles “follow a programmatic route” to “produc[e] the highest quality data”), 9:12-19 (using Chinese Postman avoids arterial bias), 9:64-10:4 (same).

In addition to implicitly defining the Location Terms in the patents' disclosure, the inventors also plainly disavowed during prosecution calculated location information that is based on non-systematic scanning. Ex. G at GSHFED187-88 (contrasting the Random Method with collecting data “*in a systematic fashion to purposefully avoid arterial bias*”) (emphasis added); GSHFED189 (“by performing a *planned audit*, and avoiding arterial bias, applicants at least achieve more complete information about access points in the target area, higher quality estimates of access point locations, and reference symmetry”) (emphasis added). “[T]he prosecution history...limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution[.]” *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985); *see also generally* Google Br. at 28-30.

Given the ambiguity of the claims, and the clear teachings of the specification, it is entirely appropriate to construe the claimed calculated location information to be based on readings recorded along a shortest planned route throughout all drivable roads in the target area (*i.e.*, by following the Chinese Postman routing algorithm), and not based on randomly, or non-systematically, collected readings of Wi-Fi access points. *Honeywell*, 452 F.3d at 1320.

In addition to its objections to the routing requirement, Skyhook inexplicably criticizes Google's construction as adding a limitation because it specifies that the access point location is stored in the database as a latitude and longitude. That, however, is what the patents teach. *See* Ex. C at 13:27-28 (“The latitude and longitude will then be stored in the database[.]”), 6:3-6, 12:46-13:31. Given that teaching, and because the calculations are based on GPS information (*i.e.*, a latitude and longitude) for the scan vehicle, the calculated location information must be a latitude and longitude. *Id.* at Abstract, 1:61-67, 7:47-52, 10:10-55, 12:1-7, Figs. 2, 10.

Skyhook also asserts that certain words in Google's definition require further construction—but does not say why. Of those, “attributed” and “mathematically” refer to the “calculated” nature of the information, and are straightforward. The other terms (“planned,” “randomly,” and “non-systematically”) were all used by the inventors to describe their invention.

See Ex. C at 3:12-18, 7:52-8:50, 9:57-61, 14:2-7; Figs. 3, 5; Ex. G at GSHFED188.

**D. “Substantially all Wi-Fi access points in the target area” (‘988 patent, claim 1; ‘694 patent, claim 1)**

Google’s Position	Skyhook’s Position
All but an insignificant number of Wi-Fi access points in the target area.	Substantially all observed Wi-Fi access points.

Google’s proposed construction is consistent with both the intrinsic evidence showing that the inventors sought to create as complete a database as possible, and with the ordinary meaning of “substantially all.” See Google Br. at 30-31. The database need not actually include records for unobservable access points. But both Google’s construction and the plain language of the claims require that the actual number of access points in the target area—observable or not—be considered when determining whether the database has records for “substantially all” of them. Skyhook’s insertion of “observed” is an effort to change the denominator.

Skyhook’s insertion of the word “observed” into the claim language is contrary to the specification, which speaks of “ensuring that all *observable* access points are detected and mapped by the system.” Ex. C at 7:63-66 (emphasis added); see also Google Br. at 31 n.9. In claiming a database of “substantially all,” rather than “all,” Wi-Fi access points, the inventors provided that some number of observable access points in the target area might not be included. That could be because of the scanners’ limited range, as Skyhook suggests, or for some other reason. There is no need to relax the plain requirements of the claims; the claims already specify how much the invention can deviate from an optimal database with all access points.

**E. “providing a reference database of calculated locations of Wi-Fi access points in a target area” (25) (245 patent, claim 1)**

Google’s Position	Skyhook’s Position
A database that contains calculated locations for all the Wi-Fi access points collected in the pre-identified target area by scanning a shortest planned route along all drivable roads. The database does not include information about Wi-Fi access points gathered using random or end-user based collection methods.	Does not need to be construed. But if construed: Providing a database of calculated locations of Wi-Fi access points in a target area. The database is used to locate a user device having a Wi-Fi radio.

Google’s construction flows directly from the meaning of “calculated locations,” and “target area.” For the reasons discussed above, the claimed database must have calculated locations based on scan data collected using the inventor’s Chinese Postman methodology. The database cannot include information about Wi-Fi access points gathered by random or end-user based collection methods. Google Br. at 26-30, 32; *supra* at §IV.A, IV.C. If it included locations based on Random Method data, or on both systematic and random scan data, it would not be “a database of calculated locations” as “calculated locations” are properly understood.

The only other issue is whether the claimed database must have calculated locations for all of the Wi-Fi access points in the target area. Unlike the independent claims of the ‘988 and ‘694 patents, claim 1 of the ‘245 patent does not recite the phrase “substantially all.” Claim 1 does, however, refer to “accessing the reference database to obtain the calculated locations for the identified Wi-Fi access points” (fifth step) and to identifying Wi-Fi access points that are within range of the user device (third step). Whether the database has a “calculated location” for every Wi-Fi access point that identifies itself depends on the completeness of the database, and steps three and five would not necessarily be met if the database has incomplete information for the target area. *See also* Ex. F, 6:18-29, 8:39-42; Ex. G at GSHFED188 (all emphasizing completeness of the database). “[P]roviding a reference database of calculated locations of Wi-Fi access points in a target area” is therefore properly understood to require the database to contain “calculated locations” for *all* collected Wi-Fi access points.

**F. “In response to a user application request to determine a location of a user-device having a Wi-Fi radio” (‘245 patent, claim 1)**

Google’s Position	Skyhook’s Position
In response to a request made by an end-user facing application, <i>i.e.</i> , not by the operating system, to determine the location of an end user-device using a Wi-Fi radio.	In response to a request made by an application running on user-device having a Wi-Fi radio to determine the location of the user-device.

The parties dispute what constitutes a “user application.” Skyhook asserts that “[i]t is obvious from the specification that ‘a user application’ is simply an application that runs on a

user-device.” Skyhook Br. at 10. Skyhook’s overly broad construction ignores the language of the patent, which specifies that “users” are consumers or end-users of mobile devices. *See* Ex. E at 1:36-40 (discussing parents, supervisors, and business travelers), 8:27 (referring to “end users”), 9:10 (same), 9:54-55 (same). Skyhook’s proposed construction also ignores the distinction the inventors made between applications that use location data and operating systems. Ex. E at 6:12-19 (distinguishing “an application or service [901] that utilizes location readings” from “positioning software” that actually determines the location as requested).

**G. “A user-device having a Wi-Fi radio” (‘245 patent, claim 1)**

Google’s Position	Skyhook’s Position
An end user or consumer device having a Wi-Fi radio.	Does not need to be construed. But if construed: A user device having a Wi-Fi radio.

Google’s proposed construction clarifies that, consistent with the ordinary meaning of the term and the intrinsic evidence, a “user device” is a consumer device such as a mobile handset or a laptop computer. *See* Ex. E at 1:36-40, 8:27, 9:10, 9:54-55 (all showing “users” are consumers or end-user of mobile devices). Rather than impermissibly narrowing the claim, Google’s construction clarifies that “a user device” does not encompass every possible device having a Wi-Fi radio; clearly the patent does not stretch that far, and was not intended to stretch that far, as it is focused on mobile computing devices. *See, e.g., id.* at 1:32-51, 5:24-27. Skyhook, however, refuses to address what is or is not a “user device” of the claims. The Court should construe this claim so as to aid the finder of fact, and may properly base its construction on the clear teachings of the specification. *SciMed*, 242 F.3d at 1344; *Bell Atlantic*, 262 F.3d at 1268.

**H. “A WiFi-enabled device communicating with WiFi access points within range of the WiFi-enabled device so that observed WiFi access points identify themselves” (‘897 patent, claim 1)**

Google’s Position	Skyhook’s Position
A user device having a Wi-Fi radio actively searching for Wi-Fi access points by transmitting a signal to all Wi-Fi access points within range and receiving a response that includes a unique identifier ( <i>e.g.</i> , a MAC	A user device having a Wi-Fi radio communicates with Wi-Fi access points within range of the user device. Communications received by the user device include an identifier ( <i>e.g.</i> , a MAC address) for observed

<b>Google's Position</b>	<b>Skyhook's Position</b>
address) from each such Wi-Fi access point,	Wi-Fi access points.

Skyhook argues that the term “communicating’ does not require two way communication.” Skyhook Br. at 33. Even if that might be true in the abstract, it is not true in claim 1 of the ‘897 patent. The claim provides that a “WiFi-enabled device” communicates with Wi-Fi access points “so that” they identify themselves; the communication is directed, emanates from the user device, and causes the in-range Wi-Fi access points to identify themselves. The specification also describes this cause-effect relationship. Ex. F at 7:13-19 (“The 802.11 sends out a probe request to all 802.11 access points within range.”). Skyhook’s proposed construction ignores the “so that” language entirely. It is improper to render claim language superfluous, and Skyhook’s construction should be rejected. *See Unique Concepts, Inc. v. Brown*, 939 F.2d 1558, 1563 (Fed. Cir. 1991) (declining to “render meaningless express claim limitations”).

## V. CONCLUSION

For these reasons, Google respectfully requests that the Court enter an order declaring each of the patents-in-suit indefinite and therefore invalid. To the extent the Court deems any patent not indefinite, Google respectfully requests that its proposed constructions be adopted.

Dated: September 28, 2011

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**CERTIFICATE OF SERVICE**

I hereby certify that *Google Inc.'s Opposition To Skyhook Wireless, Inc.'s Opening Claim Construction Brief* filed through the ECF system will be sent electronically to the registered participants as identified on the Notice of Electronic Filing (NEF) and paper copies will be sent to those indicated as non-registered participants via U.S. Mail on September 28, 2011.

/s/ Susan Baker Manning  
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