IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION

TRACBEAM, L.L.C.,	§	
	§	
Plaintiff,	§	
	§	
vs.	§	**CAUSE NO. 6:14-CV-678**
	§	**LEAD CASE**
T-MOBILE US, INC. AND	§	
T-MOBILE USA, INC.,	§	
	§	
Defendants.	§	

MEMORANDUM OPINION AND ORDER

This Memorandum Opinion construes the disputed claim terms in United States Patent Nos. 7,298,327 ("the '327 Patent"); 7,525,484 ("the '484 Patent"); 7,764,231 ("the '231 Patent"); and 8,032,153 ("the '153 Patent) asserted by Plaintiff TracBeam L.L.C. ("TracBeam") against Defendants T-Mobile US, Inc. and T-Mobile USA, Inc. ("T-Mobile") and Apple, Inc. ("Apple"). On December 18, 2015, the parties presented oral arguments on the disputed claim terms at a *Markman* hearing. Apple has since settled and many of the disputes are now moot. The Court construes what it understands to be the remaining live disputes between TracBeam and T-Mobile based on the Joint Claim Construction Chart, T-Mobile's arguments at the hearing, and TracBeam's Notice of Disputed Claim Constructions, *see* Docket No. 254. For the reasons stated below, the Court **ADOPTS** the following constructions.

BACKGROUND

The specifications of the four patents are substantially similar. All patents claim priority to three provisional applications filed in 1996 and 1997. Though not issued first, the '231 Patent was the immediate parent application for the other three patents. To be consistent with the

parties' briefing, unless otherwise noted citations are made to the '231 Patent specification (in the col:line form xx:yy).

The '484 Patent and '231 Patent were the subject of a prior litigation: *TracBeam, LLC v. AT&T, Inc.*, No. 6:11-cv-96 (E.D. Tex.). A claim construction order issued in that case at Docket No. 352, Jan. 23, 2013 ("*TracBeam I* Order"). A number of follow-on orders that touched on claim construction in some manner were issued in the *TracBeam v. AT&T* case and in the severed action, *TracBeam, LLC v. Google, Inc.*, No. 6:13-cv-93 (E.D. Tex.). *See* Docket Nos. 517, 551, and 583 (*TracBeam v. AT&T*) and 226 (*TracBeam v. Google*).

In general, the patents relate to methods and systems for determining the location of mobile devices (or mobile stations), such as cell phones. In the Background of the Invention, the patents identify a wide range of prior art techniques for locating mobile devices including, for example, signal strength and triangulation, time of arrival and triangulation, GPS, differential GPS, etc. 1:25–7:58.

The patents provide for the use of multiple location techniques for locating a mobile device. The techniques may be activated in combination for outputting a mobile device estimate. '231 Patent Abstract. Utilizing the plurality of techniques in combination alleviates some of the drawbacks of the prior art systems. '484 Patent Abstract. The systems are useful for a variety of applications such as 911 emergency locating, tracking, routing, and people and animal location. Abstract.

The patents cite to various location techniques for using measurements of the wireless signals communicated between mobile devices and a network of base stations. 8:1–4. The techniques include, for example, time of arrival, triangulation, angle of arrival, pattern matching and GPS techniques. 8:37–51. Figure 4 illustrates a high level system overview in which a

plurality of mobile stations 140 and a plurality of base stations 122 and 152 are provided. 24:36-65.

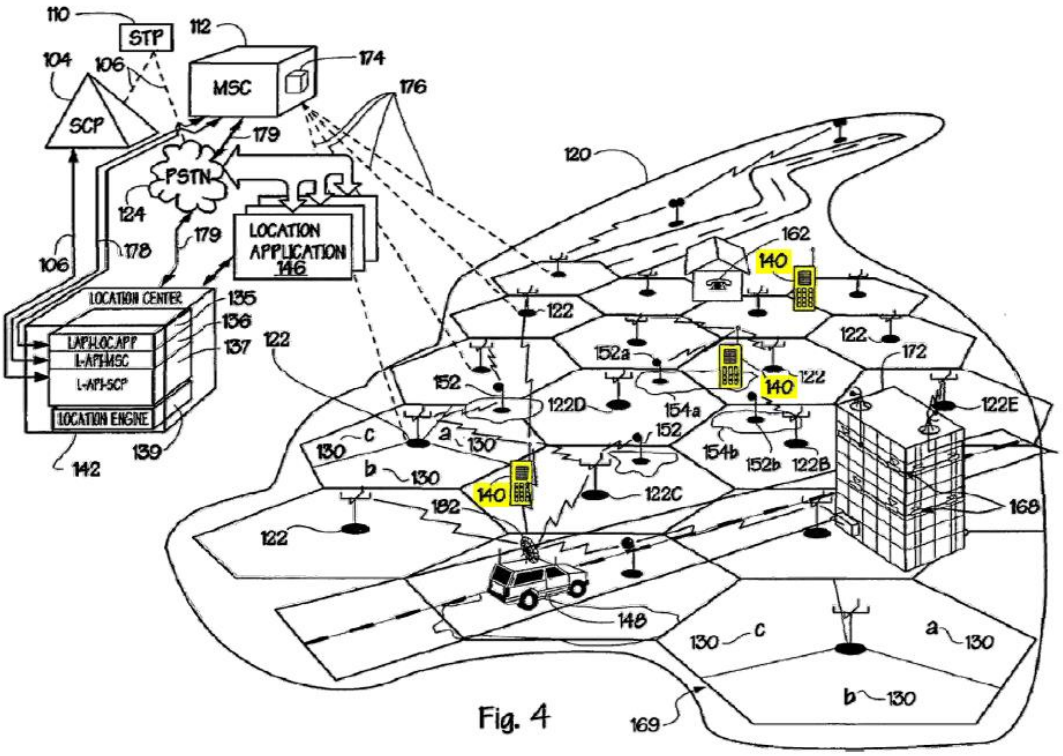

Fig. 4

Fig. 4 (highlighting added). A location center 142 is used for determining the location of a mobile station 140 using signal characteristics for the particular mobile station. 25:6–10. Location applications may request mobile station locations through use of the location center. 26:59–60.

The disputed terms are referred to herein generally with regard to the Term Groups (A, B, C…) provided in the parties' Joint Claim Construction chart: Docket No. 162-1. Within each group, the parties' final claim chart refers to individual terms by number, for example, E1, E2, E3, E4.

APPLICABLE LAW

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.' " *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). The Court examines a patent's intrinsic evidence to define the patented invention's scope. *Id.* at 1313–14; *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). Intrinsic evidence includes the claims, the rest of the specification and the prosecution history. *Phillips*, 415 F.3d at 1312–13; *Bell Atl. Network Servs.*, 262 F.3d at 1267. The Court gives claim terms their ordinary and customary meaning as understood by one of ordinary skill in the art at the time of the invention. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

Claim language guides the Court's construction of claim terms. *Phillips*, 415 F.3d at 1314. "[T]he context in which a term is used in the asserted claim can be highly instructive." *Id.* Other claims, asserted and unasserted, can provide additional instruction because "terms are normally used consistently throughout the patent." *Id.* Differences among claims, such as additional limitations in dependent claims, can provide further guidance. *Id.*

"[C]laims 'must be read in view of the specification, of which they are a part.' " *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995)). "[T]he specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.' " *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). In the specification, a patentee may define his own

terms, give a claim term a different meaning that it would otherwise possess, or disclaim or disavow some claim scope. *Phillips*, 415 F.3d at 1316. Although the Court generally presumes terms possess their ordinary meaning, this presumption can be overcome by statements of clear disclaimer. *See SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1343–44 (Fed. Cir. 2001). This presumption does not arise when the patentee acts as his own lexicographer. *See Irdeto Access, Inc. v. EchoStar Satellite Corp.*, 383 F.3d 1295, 1301 (Fed. Cir. 2004).

The specification may also resolve ambiguous claim terms "where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone." *Teleflex, Inc.*, 299 F.3d at 1325. For example, "[a] claim interpretation that excludes a preferred embodiment from the scope of the claim 'is rarely, if ever, correct.' " *Globetrotter Software, Inc. v. Elam Computer Group Inc.*, 362 F.3d 1367, 1381 (Fed. Cir. 2004) (quoting *Vitronics Corp.*, 90 F.3d at 1583). But, "[a]lthough the specification may aid the court in interpreting the meaning of disputed language in the claims, particular embodiments and examples appearing in the specification will not generally be read into the claims." *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988); *see also Phillips*, 415 F.3d at 1323.

Although "less significant than the intrinsic record in determining the legally operative meaning of claim language," the Court may rely on extrinsic evidence to "shed useful light on the relevant art." *Phillips*, 415 F.3d at 1317 (quotation omitted). Technical dictionaries and treatises may help the Court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but such sources may also provide overly broad definitions or may not be indicative of how terms are used in the patent. *Id.* at 1318. Similarly,

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