IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF DELAWARE

VEHICLE IP, LLC, Plaintiff, v. AT&T MOBILITY LLC, CELLCO PARTNERSHIP, NETWORKS IN MOTION, INC., TELECOMMUNICATION SYSTEMS, INC., TELENAV, INC., UNITED PARCEL SERVICE, INC. and UPS LOGISTICS TECHNOLOGIES, INC., Defendants.	:	Civ. No. 09-1007-LPS

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MEMORANDUM OPINION

December 12, 2011
Wilmington, Delaware

STARK, U.S. District Judge:

I. INTRODUCTION

Plaintiff Vehicle IP, LLC ("VIP") filed this patent infringement action against Defendants TeleNav Inc., and AT&T Mobility LLC (collectively, "TeleNav/AT&T"), TeleCommunication Systems, Inc., Networks In Motion, Inc., and Cellco Partnership (collectively, "TCS/Cellco"), as well as United Parcel Service, Inc., and UPS Logistics Technologies, Inc. (collectively, "UPS") on December 31, 2009. (D.I. 1) VIP alleges that Defendants infringe U.S. Patent No. 5,987,377 ("the '377 patent"). (D.I. 1)[1] Presently before the Court is the matter of claim construction. Briefing on claim construction was completed on September 29, 2011. (D.I. 119; D.I. 120; D.I. 121; D.I. 135; D.I. 136; D.I. 138) The Court held a *Markman* hearing on October 28, 2011. *See* Claim Construction Hr'g Tr., October 28, 2011 (D.I. 163) (hereinafter "Tr."). Three terms are in dispute.

II. BACKGROUND

The patent-in-suit is entitled, "Method and Apparatus for Determining an Expected Time of Arrival," and issued on November 16, 1999. The '377 patent is a continuation of an application that was filed in 1995, which ultimately issued as U.S. Patent No. 5,724,243 ("the '243 patent"), which is not asserted in this case. Both patents are directed at improving vehicle navigation systems through more efficient distribution of navigation functions between a mobile unit located in the vehicle and a remote dispatch, yielding a more accurate determination of expected time of arrival. (D.I. 123) The '377 patent claims a system in which a remotely located dispatch generates destination information for the vehicle, while a mobile unit determines vehicle

[1]References to the '377 patent are in the form of "col. ## ll. ##."

position and calculates an expected time of arrival at a way point. (D.I. 123) The '377 patent also claims use of a plurality of way points for a more accurate calculation of actual road distance to destination and, therefore, a more accurate expected time of arrival. (D.I. 121 at 7)

Claim 1, which is representative of the '377 patent's use of all of the disputed terms, is reproduced below (with emphasis added to show the disputed terms):

> A system for determining an ***expected time of arrival*** of a vehicle equipped with a mobile unit, comprising:
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> a ***dispatch*** remotely located from the vehicle, the ***dispatch*** operable to generate destination information for the vehicle, the destination information specifying a plurality of ***way points***;
>
> a communications link coupled to the ***dispatch***, the communications link operable to receive the destination information for the vehicle from the ***dispatch***; and
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> the mobile unit coupled to the communications link, the mobile unit operable to receive from the communications link the destination information for the vehicle generated by the ***dispatch***, the mobile unit further operable to determine in response to the vehicle position the ***expected time of arrival*** of the vehicle at a ***way point*** identified by the destination information and wherein the communications link comprises a cellular telephone network.

III. LEGAL STANDARDS

"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) (internal quotation marks omitted). Construing the claims of a patent presents a question of law. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977-78 (Fed. Cir.

1995), *aff'd*, 517 U.S. 370, 388-90 (1996). "[T]here is no magic formula or catechism for conducting claim construction." *Phillips*, 415 F.3d at 1324. Instead, the court is free to attach the appropriate weight to appropriate sources "in light of the statutes and policies that inform patent law." *Id.*

"[T]he words of a claim are generally given their ordinary and customary meaning . . . [which is] the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1312-13 (internal citations and quotation marks omitted). "[T]he ordinary meaning of a claim term is its meaning to the ordinary artisan after reading the entire patent." *Id.* at 1321 (internal quotation marks omitted). The patent 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." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). While "the claims themselves provide substantial guidance as to the meaning of particular claim terms," the context of the surrounding words of the claim also must be considered. *Phillips*, 415 F.3d at 1314. Furthermore, "[o]ther claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment . . . [b]ecause claim terms are normally used consistently throughout the patent . . . ." *Id.* (internal citation omitted).

It is likewise true that "[d]ifferences among claims can also be a useful guide . . . . For example, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim." *Id.* at 1314-15 (internal citation omitted). This "presumption is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one

party is urging that the limitation in the dependent claim should be read into the independent claim." *SunRace Roots Enter. Co., Ltd. v. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003). It is also possible that "the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs." *Phillips*, 415 F.3d at 1316. It bears emphasis that "[e]ven when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction." *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004) (internal quotation marks omitted), *aff'd*, 481 F.3d 1371 (Fed. Cir. 2007).

In addition to the specification, a court "should also consider the patent's prosecution history, if it is in evidence." *Markman*, 52 F.3d at 980. The prosecution history, which is "intrinsic evidence," "consists of the complete record of the proceedings before the PTO [Patent and Trademark Office] and includes the prior art cited during the examination of the patent." *Phillips*, 415 F.3d at 1317. "[T]he prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." *Id.*

A court also may rely on "extrinsic evidence," which "consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." *Markman*, 52 F.3d at 980. For instance, technical dictionaries can assist the court in determining the meaning of a term to those of skill in the relevant art because such

dictionaries "endeavor to collect the accepted meanings of terms used in various fields of science and technology." *Phillips*, 415 F.3d at 1318. In addition, expert testimony can be useful "to ensure that the court's understanding of the technical aspects of the patent is consistent with that of a person of ordinary skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field." *Id.* Nonetheless, courts must not lose sight of the fact that "expert reports and testimony [are] generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence." *Id.* Overall, while extrinsic evidence "may be useful" to the court, it is "less reliable" than intrinsic evidence, and its consideration "is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence." *Id.* at 1318-19.

Finally, "[t]he construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243,1250 (Fed. Cir. 1998). It follows that "a claim interpretation that would exclude the inventor's device is rarely the correct interpretation." *Osram GmbHv. Int'l Trade Comm'n*, 505 F.3d 1351,1358 (Fed. Cir. 2007). Thus, if possible, claims should be construed to uphold validity. *See In re Yamamoto*, 740 F.2d 1569, 1571 (Fed. Cir. 1984).

IV. CONSTRUCTION OF DISPUTED TERMS[2]

A. "expected time of arrival"

1. VIP's construction: "an indication of time when the vehicle is expected to arrive"

2. Defendants' Construction: "time of day in '[hour]/[minute] [a/p].m.' format at which the vehicle is expected to arrive somewhere (and not remaining travel time)"

3. Court's Construction: "time of day at which the vehicle is expected to arrive somewhere (and not remaining travel time)"

The Court's construction is supported by the claims and specification. (*See* col. 7 ll. 59-62; col. 8 ll. 58-62; col. 9 ll. 18-22, 55-65; col. 10 ll. 29-33; col. 15 ll. 44-47) The term "expected time of arrival" appears in all claims of the '377 patent, and neither the claims nor the specification expressly define whether the term includes or excludes remaining travel time, which is the crux of the dispute between the parties.[3] It is presumed, "unless otherwise compelled, that the same claim term in the same patent or related patents carries the same construed meaning." *Omega Eng'g, Inc., v. Raytek Corp.*, 334 F.3d 1314, 1334 (Fed. Cir.2003). Here, the presumption is that the term in dispute carries the same meaning throughout the text of the '377 patent and the related '243 patent. Claims 11, 22, 33, 39, 45, and 51 of the '377 patent and all claims of the '243 patent require a comparison of the expected time of arrival to a corresponding appointment time. For such comparison to be possible, the expected time of

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[2]The parties also initially disputed the phrase "determine in response to the vehicle position" but, after the briefing was completed, submitted a joint proposed construction for the phrase: "determine based on the vehicle position and update as the vehicle position changes position throughout the trip." (D.I. 150) The Court will adopt this agreed-upon construction.

[3]Defendants agreed at the oral argument that "expected time of arrival" may include "military time" (i.e. twenty-four hour format) in addition to their proposed "[hour]/[minute] [a/p].m." construction. *See* Tr. 91.

arrival must be in the same format as the corresponding appointment time. There is no support in the specification for Plaintiff's contention that appointment time can also be tracked as an interval of time.

The patentees used the term "expected time of arrival" consistently throughout the patent as a reference to a time of day rather than an interval of time. *See generally Bell Atl. Network Servs., Inc. v. Covad Commc'ns Grp.*, 262 F.3d 1258, 1271 (Fed. Cir. 2001) ("[W]hen a patentee uses a claim term throughout the entire patent specification, in a manner consistent with only a single meaning, he has defined that term 'by implication.'"). Examples of such usage are: "Is expected time of arrival later than appointment time?" (Fig. 7); "dispatch 20 may inform parties at the destination that vehicle 40 will not make the appointment time, but rather will arrive at the expected time of arrival determined by the mobile unit 42" (col. 7 ll. 59-62); "[i]f one or both of these expected times of arrival are after the corresponding appointment time . . ." (col. 8 ll. 58-60); and "[m]obile unit 42 determines the expected time of arrival of vehicle 40a at destination N to be 9:15 a.m." (col. 10 ll. 28-30). None of these examples encompass both an interval of time and time of day.

Moreover, the specification mentions the "expected travel time between destinations" and "average travel time" in the context of destination information transmitted from the dispatch to the mobile unit. (*See* col. 10 ll. 6-9; col. 11 ll. 6-12; col. 12 ll. 59-64) Nowhere in the specification is "time or arrival" used interchangeably with "travel time." Again, the patentees used the term "expected time of arrival" to refer to a time of day, not to refer to an interval of travel time.

Both sides cite the prosecution history of the '243 patent and the initial rejection of all

claims as unpatentable over the U.S. Patent No. 5,444,444 ("the Ross patent"). (D.I. 121 at 15-16; D.I. 136 at 7-11) Plaintiff argues that the Examiner understood the term "estimated time of arrival" to include both a time of day and an interval, supporting Plaintiff's view that the term has this plain meaning to a person having ordinary skill in the art. (*See* D.I. 121 at 16) At the oral argument Plaintiff further argued that the Examiner equated the terms "expected time of arrival" and "estimated time of arrival." (*See* Tr. 24-25) However, none of the excerpts cited by Plaintiff explicitly equate the two terms nor state that they include both a time interval and time of day. (*See* D.I. 122 Ex. D at VIP-ETA-0000314 to -315, VIP-ETA-0000337 to -338) To the contrary, the patentees' response describes the Ross patent as follows: "If the period between the present time and the estimated time of arrival is less than a predetermined interval . . . ," which is consistent with the conclusion that patentees understood the term to mean a time of day rather than an interval. (D.I. 122 Ex. D at VIP-ETA-0000335) While the Ross patent may be illustrative of what the plain meaning of "estimated time of arrival" was at the pertinent time, it does not address "expected time of arrival," the term used in the '243 and '377 patents.

Thus, the Court finds that "expected time of arrival" means a time of day, and does not include a remaining time interval. However, the Court does not limit the construction to a specific "[hour]/[minute] [a/p].m." format, which would exclude the twenty-four hour format.

B. "way point(s)"

1. VIP's Construction: "geographical point(s) of reference or destination(s)"

2. TeleNav/AT&T's and TCS/Cellco's Construction: "intermediate point(s) on the way to the final destination (and not the final destination itself)"

3. UPS's Construction: "an intermediate point on the way to a particular destination"

4. Court's Construction: "intermediate point(s) on the way to the final destination (and not the final destination itself)"

The question before the Court is whether a final destination is included in the term "way point." The Court finds that the language of the patent excludes a final destination from the definition of a way point.

The Court's construction is supported by the claims and the specification. (Col. 9 ll. 4-44) All independent claims of the '377 patent use the phrase "determine in response to the vehicle position the expected time of arrival of the vehicle at a way point." However, in the specification, the use of way points is discussed only for determining whether a vehicle is out of route and for more accurate calculation of actual road distance to destination. (Col. 9 ll. 5-8, 33-39)

The patent states that in a multiple-destination route (having destinations C, D, and E) "destinations C and D may be used as way points to determine whether the operator of the vehicle 40 has driven out of route 52a specified in the destination information." (Col. 9 ll. 6-8) Thus, the patent distinguishes between intermediate destinations C and D that can be used as "way points" on the route and destination E.

Elsewhere the patent states that a "[m]obile unit 42 may be configured to update dispatch 20 when vehicle 40 has reached a way point. In this way, dispatch 20 may be notified that vehicle 40 is still in route." (Col. 9 ll. 13-15) A vehicle that has reached the final destination is not "in route." This, again, supports the conclusion that the patentees did not include the final destination in the term "way point."

Additionally, the patent does not use the words "destination" and "way point"

synonymously. In the part of the specification that addresses multiple-destination routes, points C and D are referred to as destinations (col. 8 ll. 28-65), while the part of the specification describing use of way points distinguishes between a way point and a destination: "vehicle 40 is to proceed to ***destination*** E along route 52a, thus passing through ***way points*** C and D." (Col. 9 ll. 9-11 (emphasis added))

The patent also uses the term "intermediate way points" in the context of more accurate calculation of road distance to destination. (Col. 9 ll. 33-39) The qualifier "intermediate" is added to refer to a way point which is used only for calculating actual road distance and which does not require a calculation of expected time of arrival and does not have a corresponding appointment time. (Col. 9 ll. 37-43) Moreover, such way points may be generated locally at the mobile unit and not transmitted from the dispatch as part of the destination information. (Col. 9 ll. 43-44)

Plaintiff argues that excluding the final destination from the definition of a "way point" means that the expected time of arrival is calculated for points other than destinations, and not the destination itself. (D.I. 138 at 9) Plaintiff further argues that such construction excludes the preferred embodiment. (D.I. 138 at 9) However, the '377 patent claims are directed at determining expected time of arrival at a way point, while its parent patent '243 claims are directed at calculating "the expected time of arrival of the vehicle at the destination." (*See, e.g.*, '243 patent col. 15 ll. 10-11)

The parties have also argued that extrinsic evidence supports their respective constructions. (D.I. 119 Ex. B, C; D.I. 138 at 12-13) While "it is entirely appropriate, perhaps even preferable, for a court to consult trustworthy extrinsic evidence to ensure that the claim

construction . . . is not inconsistent with clearly expressed, plainly apposite, and widely held understandings in the pertinent technical field," *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308 (Fed. Cir. 1999), the extrinsic evidence supplied by the parties is conflicting and does not prove one "widely held understanding" of the term "way point." The Court finds that the intrinsic record sufficiently supports its construction and gives little weight to the extrinsic references.

C. "dispatch"

1. VIP's Construction: "a computer-based communication and processing system remotely located from the vehicle"

2. Defendants' Construction: "a system that deploys vehicles to provide goods or services to destinations"

3. Court's Construction: "a computer-based communication and processing system remotely located from the vehicle that manages and monitors vehicles"

The term "dispatch" appears in all independent claims of the '377 patent. The parties dispute whether it applies to any computer-based communication and processing system or whether it has additional limitations relating to its functioning.

The Court's construction is supported by the claims (col. 17 ll. 12-17; col. 20 ll. 24-29; col. 22 ll. 1-4, 25-30) and the specification (*see, e.g.*, col. 1 ll. 35-41; col. 2 l. 65 - col. 3 l. 8; col. 3 ll. 22-24; col. 8 ll. 17-26).

It is not disputed that a "dispatch [is] operable to generate destination information for the vehicle." (Col. 14 ll. 64-66) Other claims further explain that destination information may contain appointment times for way points (col. 17 ll. 8-11; col. 18 ll. 53-54; col. 20 ll. 24-29, col. 22 ll. 1-4); that a late expected arrival time may be transmitted to the dispatch (col. 17 l. 13; col.

22 l. 25); and that dispatch can generate updated destination information in response to the late information (col. 17 ll. 14-15; col. 22 ll. 26-27). It is presumed that "the same claim term in the same patent or related patents carries the same construed meaning." *Omega Eng'g,*, 334 F.3d at 1334. Because a dispatch is capable of generating destination information that includes appointment times, and is also capable of updating it in response to late information, it should be understood as a computer system that has vehicle management and monitoring functions, and not just any computer-based system remotely located from the vehicle.

The specification provides further guidance and support to the Court's construction. The patentees explained that the dispatching function "monitors and directs the travel route and expected time of arrival" (col. 1 ll. 35-37) and that "[d]estination information may be any information generated by dispatch 20 that facilitates the control or monitoring of vehicle 40" (col. 3 ll. 7-9). "[T]he present invention contemplates any number and arrangement of dispatches 20 to monitor one or more fleets of vehicles 40." (Col. 8 ll. 24-27) Dispatch is capable of modifying the route in response to late information and transmitting updated information to the vehicle. (Col. 10 ll. 43-50) This described functionality of the dispatch supports the conclusion that it is a computer-based system that has monitoring and vehicle management functions.

Plaintiff argues that monitoring and control is performed by a host, which is outside of the scope of the claimed invention, and not by the dispatch, which merely transmits destination information from the host to the vehicle. (*See* Tr. 50-51) But Plaintiff's contention is unsupported by the language of the claims – which states that "dispatch [is] operable to ***generate*** destination information" ('377 patent claim 1) (emphasis added) – and of the specification – which explains that "dispatch can ***generate*** destination information or ***route*** destination

information generated by host 25" (*id.* col. 3 ll. 22-24) (emphasis added). While a host may perform some of the functions of dispatch in some embodiments, this does not mean that dispatch is limited in the claims in the manner Plaintiff contends.

The Court concludes that its construction most accurately reflects the management and monitoring functions of dispatch while not limiting the disputed term to just its commercial embodiments.

V. CONCLUSION

An Order, consistent with this Memorandum Opinion resolving the parties' claim construction disputes, will be entered.

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ORDER

At Wilmington, this 12th day of December 2011:

For the reasons set forth in the Memorandum Opinion issued this date,

IT IS HEREBY ORDERED that the disputed claim language of U.S. Patent No. 5,987,377 (the "'377 patent"), shall be construed as follows:

1. **"expected time of arrival,"** as used in all claims of the '377 patent, is construed to mean "time of day at which the vehicle is expected to arrive somewhere (and not remaining travel time)."

2. **"dispatch,"** as used in all claims of the '377 patent, is construed to mean "a computer-based communication and processing system remotely located from the vehicle that manages and monitors vehicles."

3. **"way point(s),"** as used in all claims of the '377 patent, is construed to mean

"intermediate point(s) on the way to the final destination (and not the final destination itself)."

4. **"determine in response to the vehicle position,"** as used in all claims of the '377 patent, is construed to mean "determine based on the vehicle position and update as the vehicle position changes position throughout the trip."

UNITED STATES DISTRICT JUDGE