Nos. 2015-1190

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

ATLAS IP, LLC,

Plaintiff - Appellant,

v.

ST. JUDE MEDICAL, INC.,
ST. JUDE MEDICAL S.C., INC.,

Defendants - Appellees.

Appeal from the United States District Court for the Southern District of Florida in case no. 14-CV-21006, Judge Cecilia M. Altonaga

REPLY BRIEF OF PLAINTIFF-APPELLANT ATLAS IP, LLC

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May 11, 2015

CERTIFICATE OF INTEREST

Pursuant to Fed. Cir. R. 47.4, plaintiff-appellant, Atlas IP, LLC hereby states:

(1) The full name of every party or *amicus* represented by the attorneys identified below is Atlas IP, LLC.

(2) The name of the real party in interest in this matter is Atlas IP, LLC.

(3) Atlas IP, LLC has no parent corporation.

(4) The names of all law firms and the partners and associates that have appeared for Atlas IP, LLC in the lower tribunal or are expected to appear for Atlas IP, LLC in this Court are:

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I. INTRODUCTION

Atlas, in its original submission, discussed several tenets of claim construction that were violated by the district court in construing the "transmitting" limitation of the '734 patent. A review of St. Jude's appeal brief makes clear that only by violating these tenets can one accept the district court's construction. That construction was error, and summary judgment based upon that construction should be vacated.

II. DISCUSSION

A. *There has been no waiver*

St. Jude begins its argument by claiming that Atlas has waived the right to challenge the district court's "initial construction" of the "transmitting" limitation, *i.e.*, the construction that was ultimately modified by the district court in granting summary judgment of non-infringement. Red Br. at 16. Apparently, St. Jude believes that the district court issued two independent constructions for the same limitation, each of which was amenable to an independent challenge on appeal, and each of which is apparently capable of standing on its own. In fact, as is clear from the record below, the district judge issued a single construction, albeit one that was modified to specify "in advance" of what. To challenge the constructions both as originally issued and as modified would be to argue to St. Jude's folly. The waiver argument is baseless.

B. *The invention does not require that the remotes receive communication cycle information before the cycle commences*

St. Jude cites to the district court's observation that "the remotes must know when to ***power up*** for the beginning of the next communication cycle, or they [will] be unable to receive the information frame." Red Br. at 17 (emphasis added). This, we are told, is the basis for requiring the transmission of information regarding ***everything*** about the communication cycle in advance of the cycle. *Id.* at 16-17. This is a *non sequitur*. A remote's receipt of the information frame requires only the transmission of information about a communication cycle's starting time to the remote at the time the cycle commences. Certainly, the receipt of the information frame does not require that the remotes know how long the communication cycle is to last, or the number and length of the constituent intervals in the cycle.

St. Jude tacitly admits that the invention requires no more than "the transmission of . . . information necessary to know the starting time of each communication cycle before the cycle begins." Red Br. at 17. Yet, as explained above, the district court's construction goes well beyond this, requiring the transmission of ***all*** communication cycle information in advance of the cycle.

A specification passage upon which the district court relied "extensively" is the following from the Summary of the Invention section:

The hub transmits control information to the remotes to establish the

> communication cycle and to establish a plurality of predeterminable intervals during each communication cycle . . . Due to the defined intervals of the communication cycle and the information conveyed by the hub, the remotes are able to power off their transmitters during times other than those intervals when the remote is allowed to transmit frames to the hub. In addition, and very significantly, the remotes are able to power off their receivers during times other than those intervals when the remote is expected to receive frames from the hub. Thus, the control information and the communication cycle conserve considerable power because the receivers and transmitters of the remotes may remain powered off for a considerable portion of time without degrading communications.

Red Br. at 26, *quoting* A50 col. 5:47-56.

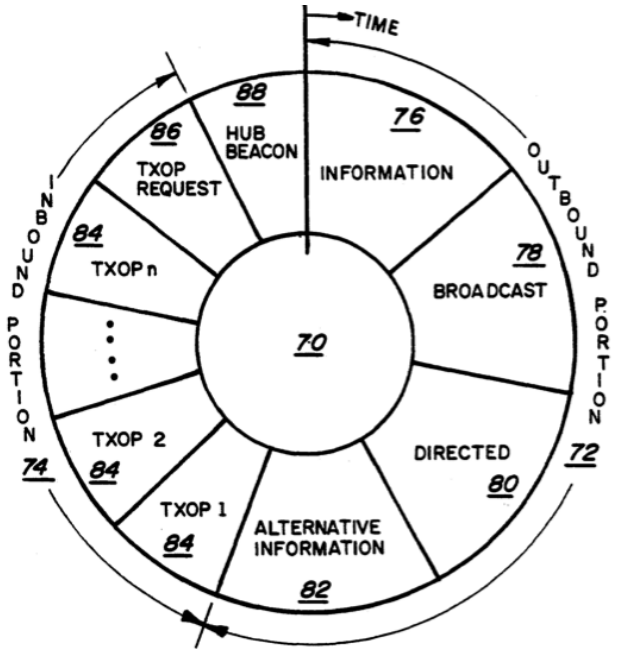
According to St. Jude, this passage "discloses that the hub transmits the information ***in advance*** of the communication cycle to allow the remotes to power off their transmitters and receivers at the appropriate times." *Id.* at 26 (emphasis added). Nothing in that passage specifies transmitting the subject information in advance of the communication cycle. St. Jude simply invents this alleged teaching in this passage. This passage, upon which the district court "extensively" relied, does not support the district court's construction.

C. *The district court's construction excludes a preferred specification embodiment*

The subject information about the communication cycle, as explained in the specification, is contained in an "information interval." A54, col. 13, lines 23-28 ("[t]he time for the overall communication cycle 70, along with the specific interval allocations within the cycle 70, are broadcast by the hub 64 in [*sic*] during

the information intervals 76 and 82"). The information interval is, according to the specification, "[d]uring the outbound portion 72 of the communication cycle." A53, col. 11, lines 56-58. This is clearly depicted in Figure 3 of the '734 Patent (reproduced below), which shows information interval 76 as the first interval in the outbound portion of the communication cycle.

And this information can also include the starting time of the communication cycle, contrary to St. Jude's suggestion that this cannot happen. *See* Red Br. at 21. As the specification teaches, the information interval 76 sent "during the outbound portion ***of the communication cycle***" (depicted below in Figure 3) "allows each of the remotes 66 to recognize and participate in the communication cycle ***at predetermined times***," *i.e.*, the start time of the cycle. *See* A53, col. 11, lines 56-62 (emphasis added). As long as the information about the starting time is sent at the very beginning of the communication cycle (as depicted below), the remotes will know at that point that the cycle is beginning, and can power on and off accordingly thereafter.



A38, Fig. 3.

Thus, as depicted in Figure 3 and the associated text in the specification, information about the start time, length, and constituent intervals of the communication cycle is sent ***during*** the communication cycle itself—not before.

Under the district court's construction of the "transmitting" limitation, however, the h-ub is required to transmit all of this information ***before*** the communication cycle begins. In other words, the district court's construction improperly excludes Figure 3 from the '734 patent. *See Accent Packaging, Inc. v Leggett & Platt, Inc.*, 707 F.3d 1318, 1326 (Fed. Cir. 2013) ("We have held that 'a claim interpretation that excludes a preferred embodiment from the scope of the claim is rarely, if ever, correct'").

St. Jude goes to great lengths to demonstrate that the district court's

construction does not exclude this embodiment. Red Br. at 29-35. St. Jude acknowledges that the information interval as depicted in Figure 3 is within the communication cycle. Red Br. at 30. However, St. Jude speculates that such information had been sent in a ***previous*** cycle, and the information interval in Figure 3 contains information for subsequent communication cycles. *Id.* at 30-31. St. Jude cites to nothing in the specification to justify this speculation. Rather, St. Jude alters Figure 3 to support St. Jude's speculative characterization of the patent's teachings. Red Br. at 31. This doctored figure is contrary to the specification's teaching that "the time for ***the*** overall communication cycle" is "broadcast by the hub 64 during ***the*** information intervals 76 and 82." A54, col. 13, lines 23-28 (emphasis added). This passage, using the definite article "the," clearly refers to the same communication cycle and the information intervals contained therein.

St. Jude urges this Court to countenance the importation into the claims of the specification embodiment wherein the hub transmits the durations of the next two subsequent cycles. Red Br. at 31. The claims should not be limited to this embodiment. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (*en banc*).

Finally, being unable to avail itself of definitive intrinsic evidence, St. Jude turns to extrinsic evidence in the form of inventor testimony. Red Br. at 35. Such

testimony is to be accorded little weight. *See, e.g.*, *Bell & Howell Document Mgmt. Prods. Co. v. Altek Sys.*, 132 F.3d 701, 706 (Fed. Cir. 1997). Here, the cited inventor testimony is far from clear regarding whether cycle-establishing information must be sent in advance of the cycle to which the information pertains. *See* Red Br. at 35. That testimony should not be used to vary the plain language of the claims of the '734 patent.

D. *The district court's claim construction yields a nonsensical result*

The "transmitting" limitation appears in claim 14 of the '734 patent which also allows for the transmission of information "describing the length of the communication cycle prior to the end of the communication cycle whose length is established." *See* Red Br. at 19. St. Jude professes not to understand how, given the presence of this limitation, the district court's construction of the "transmitting" limitation as requiring the transmission of that same information before the cycle begins leads to a nonsensical result. *Id.* at 19-20. The answer is simple—it would be nonsensical for a claim, on the one hand, to allow for the transmission of information at any time before the end of a communication cycle while, on the other hand, requiring that the same information be sent prior to the beginning of the same communication cycle. At the very least, the latter requirement would improperly render the latter allowance superfluous. *See Merck & Co. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005) (the court must construe

claims so that no term becomes superfluous).

St. Jude attempts to explain away the afore-described dichotomy by arguing that "the specification explicitly discloses that the duration of each communication cycle is transmitted to the remotes ***four times*** before the cycle begins and then ***twice more*** itself, in 'information frame' 76 and 'alternate information frame' 82 of the current cycle and the two preceding communication cycles." Red Br. at 20 (emphasis in original). So, St. Jude asks that these specification embodiments be read into the claims, which would be error. *Phillips*, 415 F.3d at 1323.

Compounding the error, these embodiments are the subject of particular claims. *See, e.g.*, '734 Patent, Claim 34 (the hub transmitting information "to establish the time for the beginning of the next subsequent communication cycle"); and Claim 21 ("the hub transmitting two frames containing information to establish the plurality of predeterminable intervals during each communication cycle"). This is the quintessential example of an applicant using different terms in different claims to evince different claim scope. *See Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1119-20 (Fed. Cir. 2004) ("when an applicant uses different terms in a claim it is permissible to infer that he intended his choice of different terms to reflect a differentiation in the meaning of those terms"). The district court's construction ignores these differences in terminology, and St. Jude fails to explain why these differences should be ignored.

E. *The district court imported specification embodiments into the claims*

1. *The claimed invention does not require multiple transmissions of the same information*

St. Jude asserts that "[a] remote would lose synchronization with the hub if it were to fail to receive all four information frames and alternate information frames sent frames sent prior to a communication cycle, because those frames inform the remote when to power on its receiver to receive transmissions from the hub during that cycle." Red Br. at 20-21. This, again, is a *non sequitur*. The only requirement is that the remotes receive ***one*** frame containing the requisite information. This hardly requires the transmission of such information six separate times, as St. Jude urges.

In any event, claim 11 expressly requires the transmission by the hub of only a single frame to the remotes. A71, col. 48, lines 29-30 ("the hub transmitting transmission opportunity allocation information in ***a*** frame transmitted by the hub" (emphasis added)). As such, imputing to claim 11 the requirement that information be transmitted more than once would comprise importing a specification embodiment into the claim.

2. *The claimed invention does not require the transmission in one communication cycle of cycle-establishing information for subsequent communication cycles*

St. Jude tacitly agrees that the district court imported into the claims the

specification embodiment that the hub, in one communication cycle, transmits cycle-establishing information for that and subsequent cycles. Rather, St. Jude embraces the district court's approach. *See* Red Br. at 27-29. To justify this admitted importation, St. Jude notes that the district court cites to "many" parts of the specification. *Id.* at 28. However, St. Jude identifies no other part of the specification teaches this particular embodiment. *See id*. at 28-29.

St. Jude asserts that "nowhere does the specification suggest that the starting time is transmitted at any time other than in advance of the communication cycle." *Id.* at 29. As explained above in section II(C), however, the specification teaches the information about the communication cycle being transmitted ***during*** the communication cycle as part of the information frame. St. Jude is once again wrong in its characterization of the specification's teachings.

Then there is St. Jude's analogy—that this Court "does not inform litigants of an oral argument's start time during that same argument." Red Br. at 29. In fact, should the argument in this matter be second or third on the docket, the litigants will find out the start time for the argument only when the argument starts, *i.e.*, when the earlier arguments have concluded.

F. *The relevance of other claims*

St. Jude posits another *non sequitur*—that because Atlas invokes claims other than claim 11, it does not dispute the consistency of that claim with the

district court's construction of the "transmitting" limitation. Red Br. at 19. It is, however, because of the express inconsistency with the other claims that such construction is inconsistent with claim 11. *See Phillips*, 415 F.3d at 1314 (emphasis added) ("Because claim terms are normally used consistently throughout the patent, the usage of a term in one claim can often illuminate the meaning of the same term in other claims"). Further, these other claims form only one of the many bases relied upon by Atlas to challenge the district court's claim construction.

Atlas has pointed out how the district court's construction was inconsistent with claims 5 and 12, each of which includes the additional limitation "the hub transmitting a frame containing the transmission opportunity allocation information during the communication cycle." St. Jude responds that this limitation does not count because "'transmission opportunities' are ***not*** communication cycles; they are ***intervals*** within communication cycles." Red Br. at 23 (emphasis in original). In making this distinction, St. Jude refers to something it calls "the first 'transmitting' clause." *Id*. at 24. However, the entirety of the "transmitting" limitation construed by the district court is the hub transmitting information to the remotes to establish the communication cycle and ***a plurality of predeterminable intervals***." A22-A24 (emphasis added); A71, col. 48, lines 10-12. It is clear from, *inter alia*, its Statement of the Issue that Atlas was

appealing from that entire construction, including the portion thereof that required transmitting in advance of the communication cycle information regarding the duration of "constituent intervals." Blue Br. at 3.

However, a portion of the Court's construction of the "transmitting" limitation (the limitation at issue) was "the hub transmitting to the remotes information necessary to know in advance the starting time and duration of each of . . . two or more predeterminable intervals during each communication cycle." A24. The afore-quoted limitation from claims 5 and 12 allowing for such information to be transmitted ***during*** the communication cycle is contrary to that construction.

St. Jude points to the purported ability of the hub to adjust the duration of a communication cycle in claim 14 as a "means of reducing the risk of transmission errors," allegedly making the district court's construction consistent with claim 14. Red Br. at 21. St. Jude is wrong. Claim 14 calls for "the hub establishing the length of each communication cycle" and then "transmitting a frame containing information describing" that length. A72, col. 49, lines 63-66. Claim 14 does not distinguish between cycles in which the hub has adjusted the length of the cycle from those in which the hub does not. The further limitation regarding adjusting the length of a communication cycle claims appears in claims 15 through 19, all of which depend directly or indirectly from claim 14. Therefore, contrary to St.

Jude's suggestion, the limitation of claim 14 wherein a frame describes the length of the communication cycle is not limited to a hub's ability to adjust a cycle's duration.

As for claim 21 of the '734 patent, which adds the limitation wherein a second frame "containing the information to establish[] the plurality of predeterminable intervals occurring before the intervals in which the remotes allowed to transmit frames to the hub," St. Jude repeats the argument that intervals are not cycles. Red Br. at 24. As noted above, the district court's construction of the "transmitting" limitation erroneously required that information about the intervals be transmitted in advance of the communication cycle. This construction is therefore inconsistent with claim 21 as well.

St. Jude characterizes claims 32 through 34 of the '734 patent as being directed to the possibility of adjustment of the duration of a communication cycle during the cycle, similar to claim 14. However, the word "adjustment" and its variants appear nowhere in these claims (unlike, for example, claims 15 through 19, all of which expressly call for adjusting the length of a communication cycle). A72, col. 50, lines 1-33. Rather, these claims all allow for the hub to transmit cycle-establishing information to the remotes ***during*** the communication cycle, which is contrary to the district court's claim construction. *See* Blue Br. at 18.

St. Jude singles out claim 34 as being allegedly inconsistent with Atlas's

proposed construction, as that claim requires establishing the start time for a first and second communication cycle. Red Br. at 24-25. St. Jude mischaracterizes Atlas's proposed construction, which is that the cycle establishing information need only be transmitted from the hub to a remote "before the intervals of the cycle in which the remote is allowed to transmit to the hub, irrespective of whether that information is also transmitted ***before or after*** the commencement of the communication cycle itself." Blue Br. at 23 (emphasis added). This construction allows for the transmission of the subject information before the communication cycle, but does not ***require*** it. Thus, claim 34 is consistent with Atlas's proposed construction.

St. Jude concludes with the observation that, "because the other limitations identified by Atlas provides ***additional*** constraints on the claimed protocol, the entirety of each claim identified by Atlas would have meaning even with the district court's construction in place. Red Br. at 25 (emphasis added). St. Jude provides ***no*** analysis for this conclusion. The point is that it matters not that there are additional limitations in the other claims identified by Atlas; it matters that those limitations clearly conflict with the district court's construction, as explained above, making that construction erroneous.

G. *The "power off" limitation*

It is unusual that a litigant's statement is demonstrably false. Here, St. Jude

represents that "Atlas ***does not even mention***" the 'powering off' limitation in its appellate brief." Red Br. at 22 (emphasis in original). St. Jude obviously missed the following discussion in Atlas's appellate brief:

> Despite this exclusionary result, the district court reasoned that its construction is necessary to ensure that "the remotes are able to power off their transmitters during times other than those ***intervals*** when the remote is allowed to transmit frames to the hub." Summary Judgment Order [A7] at 6. The parties have agreed "a communication cycle contains multiple intervals." Claim Construction Order [A24] at 14. Thus, to attain the goal identified by the district court, the hub need only transmit the subject information to the remotes before the intervals in which the remotes are allowed to broadcast to the hub, allowing the remotes to have their transmitters powered off during any other intervals. There is nothing that requires the transmission of such information before the commencement of the communication cycle itself, as opposed to the intervals contained therein.

Blue Br. at 21.[1]

Not only did Atlas mention the "powering off" limitation in its appeal brief, it explained therein how, notwithstanding that limitation, the district court's construction of the "transmitting" limitation was erroneous.

[1] St. Jude repeats this factually incorrect characterization of Atlas's appeal brief. Red Br. at 33-34.

III. CONCLUSION

For the foregoing reasons, Atlas respectfully requests that this Court vacate the district court's construction of the "transmitting" limitation of the '734 patent.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on the 11th day of May, 2015, I electronically filed the foregoing REPLY BRIEF OF PLAINTIFF-APPELLANT ATLAS IP, LLC using the CM/ECF system of the Court, which will send a notice of electronic filing to the following counsel of record:

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Appellant will hand deliver six paper copies of this document, as filed with the CM/ECF system of the Court, to the Clerk of the Court of Appeals for the Federal Circuit in Washington D.C. pursuant to ECF-10(B).

/s/ George C. Summerfield
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CERTIFICATE OF COMPLIANCE

Pursuant to Fed. R. App. P. 32(a)(7)(C), the undersigned hereby certifies that this brief complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B)(i).

1. Exclusive of the exempted portions of the brief, as provided in Fed. R. App. P. 32(a)(7)(B), the brief contains 3,412 words.

2. The brief has been prepared in proportionally spaced typeface using Microsoft Word in 14 point Times New Roman font. As permitted by Fed. R. App. P. 32(a)(7)(B), the undersigned has relied upon the word count feature of this word processing system in preparing this certificate.

May 11, 2015

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