

NOTE: This disposition is nonprecedential.

**United States Court of Appeals  
for the Federal Circuit**

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**GENERAL ACCESS SOLUTIONS, LTD.,**  
*Appellant*

v.

**SPRINT SPECTRUM L.P.,**  
*Appellee*

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2019-1856, 2019-1858

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Appeals from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Nos. IPR2017-01885, IPR2017-01887.

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Decided: May 11, 2020

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GLEN E. SUMMERS, Bartlit Beck Herman Palenchar & Scott LLP, Denver, CO, for appellant. Also represented by JOHN HUGHES, NOSSON KNOBLOCH, DANIEL TAYLOR.

BRIAN DAVID SCHMALZBACH, McGuireWoods LLP, Richmond, VA, for appellee. Also represented by DAVID EVAN FINKELSON.

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Before CHEN, LINN, and STOLL, *Circuit Judges*.

CHEN, *Circuit Judge*.

General Access Solutions (GAS) appeals from the final written decision of the United States Patent and Trademark Office Patent Trial and Appeal Board (the Board) in the above-captioned *inter partes* review (IPR) proceedings holding claims 1–16 of U.S. Patent No. 7,173,916 and claims 1–14 of U.S. Patent No. 6,891,810 as obvious over prior art cited by petitioner Sprint. We *affirm*.

#### BACKGROUND

The '916 and '810 patents, issued to the same inventors, describe fixed wireless access networks in which one or more base stations communicate with access devices at fixed locations. '916 patent at col. 11 l. 57–col. 12 l. 22; '810 patent at col. 11 l. 44–col. 12 l. 9. The claims of both patents are directed to radio frequency (RF) modem shelves for the base stations, specifically containing a modulation controller that determines various modulation configurations used by an RF modem for certain transmissions to the wireless access devices. With the exception of claims 6, 7, 14, and 15 of the '916 patent, the claims of both patents require that the modulation controller must determine an “optimum modulation configuration,” as illustrated by claim 1 provided below:

1. For use in a fixed wireless access network comprising a plurality of base stations performing bidirectional time division duplex (TDD) communication with wireless access devices disposed at a plurality of subscriber premises, a radio frequency (RF) modem shelf comprising:

a first RF modem communicating with a plurality of said wireless access devices using TDD frames, each TDD frame having an uplink for receiving data and a downlink for transmitting data; and

*a modulation controller associated with said RF modem shelf determining an optimum modulation*

*configuration for each of said plurality of wireless access devices communicating with said first RF modem, wherein said modulation controller causes said first RF modem to transmit downlink data to a first wireless access device in a first data block within a TDD frame using a first modulation configuration and to transmit downlink data to a second wireless access device in a second data block within said TDD frame using a different second modulation configuration.*

'916 patent at claim 1 (emphasis added).

Claims 6, 7, 14, and 15 of the '916 patent do not specify that the determined modulation configuration is “optimum,” but nevertheless require the modulation controller to “determin[e] a modulation configuration” for a first and second wireless access device “based on channel conditions associated with channels used to communicate with said first and second wireless access devices.” *See, e.g.*, '916 patent at claim 6.

Claims 8 and 16 of the '916 patent further employ first and second “physical beam forming technique[s].” Claim 8 is representative of both claims:

8. The RF modem shelf as set forth in claim 2 wherein said first modulation configuration comprises a first *physical beam forming technique* and said second modulation configuration comprises a different second *physical beam forming technique*.

'916 patent at claim 8 (emphases added).

The Board found claims 1–16 of the '916 patent and claims 1–14 of the '810 patent unpatentable based on various grounds relying on U.S. Patent No. 7,366,133 (Ahy) as prior art under 35 U.S.C. § 102(e). Relevant to this appeal, GAS did not argue against the Ahy-based obviousness analysis for claims 1–7 and 9–15 of the '916 patent and claims 1–14 of the '810 patent. Instead, GAS attempted to

swear behind Ahy on the basis that inventor Paul Struh-saker conceived of these claimed inventions prior to July 21, 2000, the filing date of Ahy.

The Board determined that GAS's briefing on the issue of prior conception violated 37 C.F.R. § 42.6(a)(3), which specifies that "[a]rguments must not be incorporated by reference from one document into another document." The Board declined to consider arguments that were not substantively presented in GAS's briefing. Considering only GAS's briefing, which "merely direct[ed]" the Board to the arguments and evidence set forth in another document,<sup>1</sup> the Board concluded that GAS had not met its burden of establishing that the inventors conceived of the inventions claimed in the '916 and '810 patent prior to the filing date of Ahy. J.A. 14.

In the alternative, even if the Board were to consider the arguments it held improperly incorporated, the Board nevertheless maintained that GAS had not established prior conception due to insufficient corroboration of the claimed limitation of "determining an optimum modulation configuration." Specifically, the Board explained that GAS's corroborating evidence failed to "describe what the optimum modulation is or how such optimum modulation is determined." J.A. 17.

As to claims 8 and 16 of the '916 patent, the Board rejected GAS's contention that "beam forming technique"

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<sup>1</sup> Although the Board referred specifically to arguments incorporated from "Exhibit 2457," the parties appear to agree that the Board intended to refer to attachment A of Exhibit 2472. Appellant's Br. at 13 n.2; Appellee's Br. at 17 n.8. Exhibit 2472 is a declaration from inventor Struh-saker, and attachment A is a claim chart purporting to map claim elements to evidence submitted by GAS in support of conception. J.A. 1862–82.

should be narrowly construed to require a technique that uses “constructive and destructive interference to illuminate specific portions or areas of a cell or sector thereby improving link quality and reducing interference effects.” J.A. 26. Instead, the Board found that claims 8 and 16 would have been obvious because Ahy’s use of a parameter to select antennas for transmission met the “physical beam forming technique” limitations. J.A. 27.

GAS appeals, and we have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

## DISCUSSION

### I. INCORPORATION BY REFERENCE; CONCEPTION

We first address GAS’s challenge to the Board’s exclusion of arguments incorporated from documents other than GAS’s briefing.

Decisions related to compliance with the Board’s procedures are reviewed for an abuse of discretion. *Bilstad v. Wakalopulos*, 386 F.3d 1116, 1121 (Fed. Cir. 2004). “An abuse of discretion is found if the decision: (1) is clearly unreasonable, arbitrary, or fanciful; (2) is based on an erroneous conclusion of law; (3) rests on clearly erroneous fact finding; or (4) involves a record that contains no evidence on which the Board could rationally base its decision.” *Id.*

The rule prohibiting incorporation by reference in IPR proceedings is set forth in 37 C.F.R. § 42.6(a)(3) (emphasis added):

(3) Incorporation by reference; combined documents. *Arguments must not be incorporated by reference from one document into another document.* Combined motions, oppositions, replies, or other combined documents are not permitted.

The prohibition against incorporation of arguments from other documents serves various policy goals, including to “minimize the chance that an argument may be

overlooked” and to “eliminate[] abuses that arise from incorporation and combination.” Rules of Practice for Trials Before the Patent Trial and Appeal Board and Judicial Review of Patent Trial and Appeal Board Decisions, 77 Fed. Reg. 48,617 (Aug. 14, 2012). Otherwise, the Board would be forced to “play archeologist with the record” and search for arguments that might have made outside of the parties’ briefing. *Id.* (citing *DeSilva v. DiLeonardi*, 181 F.3d 865, 866–67 (7th Cir. 1999)).

We do not see any abuse of discretion in the Board’s enforcement of its rules. The “patentee bears the burden of establishing that its claimed invention is entitled to an earlier priority date than an asserted prior art reference.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1375–76 (Fed. Cir. 2016). Thus, GAS had to present a case to establish prior conception of every claim limitation. GAS’s briefing failed to meet this burden.

GAS urges that the following paragraph from its patent owner response “sets forth GAS’s argument that Mr. Struhsaker conceived of the subject matter of the patents in suit prior to July 21, 2000”:

With respect to the specific claims in the ‘801 [*sic*] patent, Mr. Struhsaker had completely conceived of the claimed subject matter by at least May 24, 2000. (Ex. 2472, ¶ 15). As demonstrated in his Declaration, and the claim chart attached as Attachment A, Mr. Struhsaker had memorialized his conception in a document called the Last Mile Business Overview as of that date. (Ex. 2457). In Appendix A, Mr. Struhsaker maps to the specific claim elements of the ‘810 patent to the material Exhibit 2457.

Appellant’s Br. at 14 (citing J.A. 1281); *see also* J.A. 4110 (providing an equivalent paragraph for the ‘916 patent). But this paragraph fails to explain with any specificity how inventor Struhsaker had conceived of the limitations

recited in the various patent claims. Instead, GAS's patent owner response makes only the general allegation that the claimed limitations can be found "in a document called the Last Mile Business Overview." *See id.*

To identify GAS's substantive arguments, the Board was forced to turn to a declaration by Struhsaker, and further to delve into a twenty-nine-page claim chart attached as an exhibit. This exercise of "playing archaeologist with the record" is precisely what the rule against incorporation by reference was intended to prevent, 77 Fed. Reg. 48,617, and the Board was within its discretion in excluding the arguments made in the claim chart. And although GAS argues that excluding the claim chart arguments was an abuse of discretion because GAS's briefing fell under the page limits, GAS's voluntary decision to violate a procedural rule does not make the Board's enforcement of that rule an abuse of discretion.

Without the benefit of the arguments improperly incorporated from the claim chart attached to Struhsaker's declaration, GAS was left with its broad allegation that Struhsaker had conceived of the claimed invention by May 24, 2000 and its conclusory citation to the entirety of the Last Mile Business Overview document.<sup>2</sup> *See* Appellant's

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<sup>2</sup> To the extent GAS argues that it presented additional argument in its surreply that cured the conclusory assertions in its response, *see* Reply at 12–13, that argument is waived for failure to present it in GAS's opening brief on appeal. *SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1319 (Fed. Cir. 2006) ("Our law is well established that arguments not raised in the opening brief are waived." (citing *Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1320–21 n.3 (Fed. Cir. 2005))). Moreover, even assuming as true that GAS "presented additional argument directed to the [modulation

Br. at 14. GAS's assertion that the claim chart contains "evidence" rather than "argument" effectively concedes that the only arguments it offered on prior conception were set forth in its briefing. *See, e.g., id.* ("The Struhsaker Declaration, and the claim chart included as part of the Declaration, constitute *evidence* that supports the *argument* in GAS's brief.>").

We agree with the Board that the conclusory assertions in GAS's patent owner response are insufficient to meet GAS's burden of establishing prior conception.<sup>3</sup>

## II. BEAM FORMING TECHNIQUE

As to claims 8 and 16 of the '916 patent, GAS alleges that the Board too broadly construed "beam forming technique" as "a modulation configuration." GAS urges that we adopt its narrower interpretation: "constructive and destructive interference to illuminate specific portions or areas of a cell or sector thereby improving link quality and reducing interference effects." Appellant's Br. at 28. We see no error with the Board's rejection of GAS's narrow construction.

When an IPR is instituted from a petition filed before November 13, 2018, as here, the claims are given the "broadest reasonable interpretation" consistent with the

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controller] claim element in its Surreply," Reply at 12, GAS would still have failed to meet its burden of establishing prior conception of the remaining claim limitations.

<sup>3</sup> Because we find that the Board did not abuse its discretion in declining to address the improperly incorporated documents, we do not reach the question of whether the Board erred in its alternative holding that evaluated those materials by treating claim 1 of the '916 patent, which recites the "optimum modulation configuration" limitation, as representative of claims 6, 7, 14, and 15, which do not recite an "optimum" modulation configuration.

specification. *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2142 (2016); Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Oct. 11, 2018). We review claim construction de novo except for subsidiary factual findings based on extrinsic evidence, which we review for substantial evidence. *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 333 (2015); *In re Hodges*, 882 F.3d 1107, 1115 (Fed. Cir. 2018).

To the extent that the Board construed “beam forming technique,” it was in rejecting GAS’s overly narrow construction in the context of the parties’ dispute over whether Ahy’s use of an antenna selection parameter disclosed the claimed “physical beam forming technique.” We note that Sprint did not propose to construe “beaming forming technique” as “a modulation configuration,” instead explaining that GAS’s expert, Dr. Humphrey, had contradicted GAS’s own claim construction position by testifying that a “physical beam forming technique is just a modulation configuration.” J.A. 5174–75 (citing J.A. 5674 at ll. 14–17). The Board agreed with Sprint’s arguments that GAS’s proposed construction was unduly narrow and that Ahy discloses a “beam forming technique,” but did not expressly adopt any construction of “beam forming technique.” See J.A. 26 (“We agree with Petitioner.”).

Here, the Board weighed claim construction testimony from GAS’s expert and found it unpersuasive. As the Board correctly noted, GAS does not rely on any intrinsic support from the ’916 specification, but rather supports its narrow claim construction only with Mr. Humphrey’s bare assertion that “[b]eam forming is accomplished through constructive and destructive interference to illuminate specific portions or areas of a cell or sector thereby improving link quality and reducing interference effects.” J.A. 5099. Moreover, as Sprint pointed out, Mr. Humphrey also testified to the contrary that a “physical beam forming

technique” in the context of claims 8 and 16 of the ’916 patent refers to a “modulation configuration.” J.A. 5674 at ll. 10–17; *see also* J.A. 5675 ll. 18–20 (“Well, here [physical beam forming technique is] being defined as a modulation configuration.”). In view of Mr. Humphrey’s conclusory and inconsistent testimony, the Board fairly credited Sprint’s expert, Mr. Proctor, who explained that the “[s]election of different sets of combinations of antennas will result in different coverage patterns and similarly constitutes use of different ‘physical beam forming techniques.’” J.A. 27.

In sum, we decline to adopt GAS’s narrow construction of “beam forming technique.” GAS has offered no intrinsic evidence to support such a narrow reading, and the Board’s weighing of the expert testimony was supported by substantial evidence.

#### CONCLUSION

We have considered GAS’s remaining arguments and find them unpersuasive. For the reasons stated above, we *affirm* the Board’s decision.

**AFFIRMED**