

NOTE: This disposition is nonprecedential.

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

**AMC MULTI-CINEMA, INC., AMC
ENTERTAINMENT HOLDINGS, INC., BOSTON
MARKET CORPORATION, MOBO SYSTEMS, INC.,
MCDONALD'S CORPORATION, MCDONALD'S
USA, PAPA JOHN'S INTERNATIONAL, INC., STAR
PAPA LP, PAPA JOHN'S USA, INC.,**
Appellants

v.

FALL LINE PATENTS, LLC,
Appellee

2021-1051

Appeal from the United States Patent and Trademark
Office, Patent Trial and Appeal Board in No. IPR2019-
00610.

Decided: September 30, 2021

RICARDO BONILLA, Fish & Richardson PC, Dallas, TX,
argued for all appellants. Appellants McDonald's Corpora-
tion, McDonald's USA, Papa John's International, Inc.,
Star Papa LP, Papa John's USA, Inc. also represented by
NEIL J. MCNABNAY.

ROB RECKERS, Shook, Hardy & Bacon, LLP, Houston, TX, for appellants AMC Multi-Cinema, Inc., AMC Entertainment Holdings, Inc. Also represented by MICHAEL W. GRAY.

LOWELL D. MEAD, Cooley LLP, Palo Alto, CA, for appellants Boston Market Corporation, Mobo Systems, Inc.

MATTHEW JAMES ANTONELLI, Antonelli, Harrington & Thompson, LLP, Houston, TX, argued for appellee. Also represented by ZACHARIAH HARRINGTON, REHAN M. SAFIULLAH, LARRY D. THOMPSON, JR.

Before TARANTO, HUGHES, and STOLL, *Circuit Judges*.

TARANTO, *Circuit Judge*.

Fall Line Patents, LLC owns U.S. Patent No. 9,454,748, entitled “System and Method for Data Management.” The appellants (collectively, AMC) challenged various claims of the ’748 patent in an inter partes review in the Patent and Trademark Office. The Office’s Patent Trial and Appeal Board held all challenged claims unpatentable for obviousness, except for independent claim 7. For claim 7, the Board deemed AMC’s petition for inter partes review insufficient regarding the prior art’s teaching of a required claim limitation, making AMC’s reply elaboration and evidence impermissible, and also deemed that reply material insufficient on its merits. *American Multi-Cinema, Inc. v. Fall Line Patents, LLC*, 2020 WL 4530148, at *19–26 (P.T.A.B. Aug. 5, 2020) (*Final Written Decision*). AMC appeals.

We hold that, as to AMC’s petition, the Board abused its discretion in its reading of one short, integrated, uninterrupted passage about the disputed limitation of claim 7—which, we conclude, fairly stated in terse form why the

limitation was met by the prior art and sufficed to permit AMC to submit, in reply, further evidence that explained, without materially altering, that point. We also hold that the Board gave an inadequate explanation of why the AMC reply material was unpersuasive on the merits of that point. For those reasons, while we affirm the Board's rejection of certain contentions by AMC, we vacate the Board's decision as to claim 7 and remand for further proceedings.

I

A

The '748 patent describes a "method for the management of data collected from a remote computing device including the steps of: creating a questionnaire; transmitting the questionnaire to a remote computer; executing the questionnaire in the remote computer to prompt a user for responses . . . ; transmitting the responses to a [server] via a network; making the responses available on the Web." '748 patent, Abstract. One contemplated use of the method is to help a retail business conduct self-testing of its outlet's customer service—through hiring persons to appear as customers and report back on their customer-service experience. The business could design a custom questionnaire, transmit it to the phone of the so-called "mystery shopper," prompt the shopper for responses at certain checkpoints in the shopping process, and receive responses made available on the Internet. *See id.*, col. 10, line 37, through col. 11, line 42.

Claim 7 is the only claim at issue on appeal. It reads:

7. A method for collecting survey data from a user and making responses available via the Internet, comprising:

(a) designing a questionnaire including at least one question said questionnaire customized for a particular location having

branching logic on a first computer platform wherein at least one of said at least one questions requests location identifying information;

(b) automatically transferring said designed questionnaire to at least one loosely networked computer having a GPS integral thereto;

(c) when said loosely networked computer is at said particular location, executing said transferred questionnaire on said loosely networked computer, thereby collecting responses from the user;

(d) while said transferred questionnaire is executing, using said GPS to automatically provide said location identifying location as a response to said executing questionnaire;

(e) automatically transferring via the loose network any responses so collected in real time to a central computer; and,

(f) making available via the Internet any responses transferred to said central computer in step (e).

'748 patent, col. 14, lines 45–67 (emphasis added). Limitation (b) is the principal limitation relevant to this appeal. Although some details we disregard here may matter for other purposes, for present purposes we may describe that limitation as requiring the downstream automatic transfer of an executable questionnaire from a central computer to a loosely networked mobile personal computer (*e.g.*, smartphone) having GPS capability.

B

On January 22, 2019, AMC petitioned the Board for an inter partes review of claims 1, 2, 5, 7, and 19–22 of the '748

patent. AMC asserted two grounds challenging claim 7: obviousness over the Barbosa patent in view of the Falls patent, and obviousness over the Hancock patent in view of Falls. J.A. 123. The Barbosa patent, U.S. Patent No. 6,961,586, describes “[s]ystems for and methods of conducting field assessments utilizing handheld data management devices” and “[f]ield assessment data synchronization and/or delivery . . . enabled using wireless capabilities resident in handheld personal computing devices.” Barbosa, Abstract; J.A. 651. The Hancock patent, U.S. Patent No. 6,202,023, describes “[a] system and method for automatically providing services over a computer network, such as the Internet, for users in a mobile environment based on their geographic location.” Hancock, Abstract; J.A. 669. The Falls patent, U.S. Patent No. 5,991,771, describes “[a] method and apparatus . . . for synchronizing transactions in a disconnectable network.” Falls, Abstract; J.A. 1532.

In AMC’s petition, in the presentation of the obviousness ground based on Barbosa in view of Falls, the section on limitation (b) of claim 7 reads as follows:

“(b) automatically transferring said designed questionnaire to at least one loosely networked computer having a GPS integral thereto;”

As explained in VII.A.i.B-C [J.A. 136–40], Barbosa discloses transferring the designed questions to at least one computer having a GPS integral thereto. Ex. 1005 ¶ 176 [J.A. 812–13].¹ The transfer occurs automatically as disclosed, for example, at

¹ Exhibit 1005 is the declaration of AMC’s expert Kendyl A. Román (Román Decl.), submitted with the petition.

[Barbosa] 3:28–43; 6:24–39; 6:64–67 [J.A. 662–63].

Further, Barbosa discloses “at least one loosely networked computer.” Barbosa discloses, “Field assessment data synchronization and/or delivery is enabled using wireless capabilities resident in handheld personal computing devices.” [Barbosa], Abstract [J.A. 651]. *A POSITA would understand that during synchronization on a wireless network, data is automatically transferred when a connection is available, and temporarily stored for later transmission when a connection is unavailable, as this was a well-known characteristic of network communication protocols that relied on synchronization for transmission and delivery over a wireless network at the time.* [Román Decl.] ¶ 177 [J.A. 813]. Through such synchronization, networked computers coordinate their transmission of data to one another, sending data when appropriate and storing data for later transmission when a connection is established. *Id.* Such techniques for handling unreliable networked connections were necessary at that time given the unreliable nature of existing wireless data connections. *Id.*

To the extent Barbosa is not found to expressly teach the various aspects of “loosely networked” computers, such details are expressly taught by Fall[s]. [Román Decl.] ¶ 178 [J.A. 814]. Falls discloses a loosely connected network and provides further details for handling intermittent network connections, and discloses techniques for synchronization between a mobile device

which connects, disconnects, and reconnects with a computer network. *Id.*; [Falls], 3:16–35 [J.A. 1540].

Falls teaches that the computers are synchronized upon being reconnected. [Falls], 16:35–37 [J.A. 1546]. Specifically, Falls provides an overview of how the synchronizing of transactions between disconnectable computers can be applied in a variety of situations. [Falls], 37:9–32 [J.A. 1557].

Accordingly, to the extent Barbosa’s disclosure does not expressly disclose or render obvious the “loosely networked” limitation, this claim requirement would have been obvious in view of Falls and its disclosure of techniques for managing intermittent connections over networks, including wireless networks. [Román Decl.] ¶¶ 176–181 [J.A. 812–16].

J.A. 161 (emphasis added in second paragraph under heading).

Besides the quoted Abstract excerpt, J.A. 651, the above passage directly cites portions of Barbosa from two columns. Cited portions of the “Summary of the Invention” from column 3 disclose “two-way” wireless communication between a remote server and a handheld device, the “synchronization” of “field assessment data” between them, and “real-time access to remote programs, assistance and/or information related to the field assessment being undertaken.” Barbosa, col. 3, lines 29–43; J.A. 662. A cited portion of column 6, from early in the preferred-embodiments section of Barbosa, describes a component of the handheld device (“an integrated modem 40 to provide data transfer functions and for remote connectivity”) that permits a “remote person” to “provide tasks . . . and other information for use and display” on the handheld user’s

device. Barbosa, col. 6, lines 35–37; J.A. 663. The cited sections of the Román Declaration say essentially, often identically, what the petition says. J.A. 812–16.

As to the obviousness ground based on Hancock in view of Falls, AMC included in its petition only a very brief section addressing limitation (b) of claim 7. J.A. 191–92. AMC wrote there that “Hancock discloses transferring the designed questions to at least one computer having a GPS integral thereto,” citing the Abstract of Hancock and an identical portion from the Román Declaration. J.A. 191. The section contains no assertion about “automatic transfer” or about “synchronization” being automatic. *Id.*

In its preliminary patent owner’s response, Fall Line concentrated on claim limitations that were common to the host of challenged patent claims. It did so even as to claim 7. Perhaps in light of the all-or-nothing character of an institution decision, *SAS Institute Inc. v. Iancu*, 138 S. Ct. 1348 (2018), Fall Line said nothing to dispute AMC’s contention that Barbosa met the “automatic” downstream-transfer aspect of claim 7’s limitation (b)—a feature not found in any other challenged claim. *See* Patent Owner’s Preliminary Response at 42–43, *American Multi-Cinema, Inc. v. Fall Line Patents, LLC*, IPR2019-00610, Paper No. 10 (P.T.A.B. May 10, 2019) (section on claim 7).

The Board instituted the requested review. But in its institution decision, the Board determined that AMC had not established a reasonable likelihood of prevailing on either of its two asserted grounds with respect to claim 7. In particular, it so found with respect to the limitation: “(b) *automatically transferring said designed questionnaire to at least one loosely networked computer.*” J.A. 319–21, 327–28 (emphasis in original).

Regarding the Barbosa ground, the Board said that even if Barbosa discloses transfer of “designed questions to [handheld] device 10,” AMC “provides no analysis” “with respect to the purportedly automatic nature of this

transfer.” J.A. 319. It added that “[t]he purportedly automatic transfer of a questionnaire to device 10 . . . is not evident from [the petition-cited] passages” from Barbosa. *Id.* And “[t]he cited testimony from Mr. Roman’s declaration also fails to explain why the transfer is automatic.” J.A. 320. The Board noted that AMC, relying on its expert, asserted that (in the Board’s words) “data is automatically transferred when a connection is available for the handheld device,” but it said that the assertion “does not appear to be directed to the automatic transfer of the designed questionnaire” and, in any event, “relies solely on the conclusory testimony of Mr. Roman.” J.A. 321 n.13. For those reasons, the Board said, it did “not discern that [AMC’s] showing regarding the prior art teachings of this limitation is sufficient.” J.A. 321. Regarding the Hancock ground, the Board similarly did “not discern that [AMC’s] showing regarding the prior art teaching of this limitation is sufficient.” J.A. 328.²

After institution, when Fall Line filed its patent owner’s response, it simply relied, for claim 7, on the Board’s institution-decision reasoning. J.A. 401, 403. AMC then filed its reply, in which it responded to the Board’s institution decision by asserting that Barbosa and Hancock include “numerous descriptions of the claimed automatic transfer,” citing the original expert declaration, an additional reply declaration, and previously uncited passages from the prior-art references. J.A. 429–31, 437–39 (reply); J.A. 1565–74 (reply declaration). In particular, with respect to limitation (b) of claim 7, AMC newly pointed to portions of Barbosa not cited in the section of the petition that addressed claim 7’s limitation (b)—namely, Barbosa,

² Regarding both the Barbosa–Falls and Hancock–Falls grounds, the Board also said that it did not discern a sufficient showing with respect to limitation (f) of claim 7. J.A. 321–24, 328–29.

col. 10, lines 32–42, 59–67; col. 11, lines 29–40, 53–62; col. 12, lines 11–32. Those passages describe particular embodiments of the general invention described in earlier cited Summary passages from column 3 and features identified in the earlier-cited passage from column 6. Fall Line responded to AMC’s arguments in a sur-reply. J.A. 463–68, 470–72.

C

After hearing oral argument from the parties, the Board issued its final written decision, which ruled unpatentable all the challenged claims except claim 7. *Final Written Decision*, 2020 WL 4530148, at *1, *26–27. As to claims other than claim 7, we note that the Board, when finding that Barbosa taught the claimed “questionnaire,” relied on some of the Barbosa embodiment-describing passages that AMC had cited in reply when addressing claim 7. *See id.* at *8–10 (citing, *inter alia*, Barbosa, col. 10, lines 32–33; Barbosa, col. 11, line 63, through col. 12, line 32; Barbosa, col. 12, lines 14–18; Barbosa col. 12, lines 30–32). As to claim 7, for the Barbosa–Falls ground, the Board first reiterated what it said in its institution decision—that neither AMC’s petition nor the petition-cited passages from Barbosa nor the Román Declaration showed why Barbosa’s transfer of questions was automatic. *Id.* at *19–20. The Board said that AMC had not, in its reply, “persuasively explain[ed] why its Petition proves that Barbosa teaches [] automatic transfer,” but had, instead, contended that “additional disclosures in Barbosa teach or suggest that transfer.” *Id.* at *20. The Board then rejected AMC’s contention.

First, the Board ruled that AMC’s reply arguments were untimely and therefore to be disregarded. *Id.* The Board relied on our explanation in *Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.* that “[i]t is of the utmost importance that petitioners in the IPR proceedings adhere to the requirement that the initial petition identify ‘with particularity’ the ‘evidence that supports the grounds for

the challenge to each claim,” 821 F.3d 1359, 1369 (Fed. Cir. 2016) (quoting 35 U.S.C. § 312(a)(3)), and, in addition, on a regulatory limitation on reply material stated in 37 C.F.R. § 42.23(b) (2020): “All arguments for the relief requested in a motion must be made in the motion. A reply may only respond to arguments raised in the corresponding opposition or patent owner response.” See *Final Written Decision* at *20. In this case, the Board concluded, “it was not within the proper scope of a reply to (i) introduce and rely on new disclosures to establish the automatic transfer and (ii) argue for the first time that the recited automatic transfer was rendered obvious by Barbosa.” *Id.* (footnote omitted). As to the latter point, regarding new legal arguments (not just new evidence), the Board noted that the petition argued only that the required automatic transfer was taught by Barbosa, not that it would have been obvious over Barbosa. *Id.* at *20 n.16.

Second, the Board determined that even if it were to consider AMC’s reply arguments and evidence, it would reject AMC’s challenge to claim 7. *Id.* at *20–22. At the core of the Board’s conclusion in this respect was its determination—about which we have seen no reasonable dispute—that, because “claim 7 additionally recites ‘executing said questionnaire,’” the questionnaire that is transferred under limitation step (b) must be executable. *Id.* at *21. The Board found inadequate evidence that the newly cited passages from Barbosa (from columns 10 through 12) taught such an *executable* questionnaire being transferred. *Id.* at *21–22.

The Board’s analysis of the Hancock–Falls combination was similar. *Id.* at *23–26. Quoting the petition’s Hancock–Falls section on claim 7’s limitation (b) in its entirety, *id.* at *24, the Board readily found that the petition “does not address how any transfer of a designed questionnaire in Hancock is automatic,” *id.* Nor, the Board also found, is such an explanation to be found in the petition-cited portion of the Román Declaration, which, indeed, points

toward a portion of Hancock that calls for user-triggered, not automatic, transfer. *Id.* And the Board found AMC's reply submissions both untimely and inadequate. *Id.* at *24–26.

AMC timely appealed the Board's final written decision. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A) and 35 U.S.C. §§ 141(c), 319.

II

A

The statutes and regulations applicable to inter partes review, which “embody expedition- and efficiency-based policies,” *Ariosa Diagnostics v. Verinata Health, Inc.*, 805 F.3d 1359, 1367 (Fed. Cir. 2015), establish filing-content rules—governing, as relevant here, the required content of the petition-stage filings and the permissible content of reply-stage filings. *First*, they generally require a petitioner to provide in the petition itself an understandable explanation of the element-by-element specifics of its unpatentability contentions, identifying supporting parts of the relied-on prior art. *See* 35 U.S.C. § 312(a)(3) (A petition may be considered only if it “identifies, in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim, including—(A) copies of patents and printed publications that the petitioner relies upon in support of the petition; and (B) affidavits or declarations of supporting evidence and opinions, if the petitioner relies on expert opinions.”); 37 C.F.R. §§ 42.22(a)(2) (requiring a “full statement of the reasons for the relief requested, including a detailed explanation of the significance of the evidence including material facts, and the governing law, rules, and precedent”), 42.104(b)(4)–(5) (A petition “must specify where each element of the claim is found in the prior art patents or printed publications relied upon” and, regarding evidence submitted, state “the relevance of the evidence to the

challenge raised, including identifying specific portions of the evidence that support the challenge.”); *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363–64 (Fed. Cir. 2016); *Ariosa*, 805 F.3d at 1367. As the Board noted, we have stressed that “[i]t is of the utmost importance that petitioners in the IPR proceedings adhere to the requirement that the initial petition identify ‘with particularity’ the ‘evidence that supports the grounds for the challenge to each claim.’” *Intelligent Bio-Systems*, 821 F.3d at 1369 (quoting 35 U.S.C. § 312(a)(3)). *Second*, reinforcing that requirement for what must be in the petition is a regulatory limit on permissible reply material. 37 C.F.R. § 42.23(b) (2020) (“A reply may only respond to arguments raised in the . . . patent owner response.”); *see* 37 C.F.R. § 42.23(b) (2021) (“A reply may only respond to arguments raised in the . . . patent owner response, or decision on institution.”).

We have applied those rules in a number of decisions that restrict use of certain reply material in forming the record on which the Board ultimately decides the persuasiveness (under the preponderance-of-the-evidence standard) of the petitioner’s challenges. *See Intelligent Bio-Systems*, 821 F.3d at 1369–70 (affirming Board’s disapproval of a party’s “entirely new rationale to explain why one of skill in the art would have been motivated to combine” prior art references “by reference to new evidence” raised in the reply); *Ariosa*, 805 F.3d at 1367 (affirming Board’s disapproval of a party’s “reliance, in its Reply submissions, on previously unidentified portions of a prior-art reference to make a meaningfully distinct contention”); *Wasica Fin. GmbH v. Cont’l Auto. Systems*, 853 F.3d 1272, 1285–87 (Fed. Cir. 2017) (affirming Board’s ruling that an obviousness challenge was “insufficiently precise and underdeveloped” because the petitioner “did not make out its obviousness case in its petition”; the petition “offered only a conclusory and sweeping allegation,” while the reply argued that a relevant artisan would have looked to a different passage and would have modified the prior art); *Henny*

Penny Corp. v. Frymaster LLC, 938 F.3d 1324, 1330–31 (Fed. Cir. 2019) (affirming Board’s refusal to permit new reply argument, which argued for a modification, when petition argued for replacement, in a two-reference obviousness challenge).

At the same time, we have made clear that if the petition asserts that a claim requirement is met, provides a reason that the assertion is true, and cites evidentiary support for that reason, then reply material that fairly adds confirmation that the initially presented material does in fact support the assertion is not prohibited new material, but a proper part of the record. See *Ericsson Inc. v. Intellectual Ventures I LLC*, 901 F.3d 1374, 1379–81 (Fed. Cir. 2018) (holding that the Board had abused its discretion where it “pars[ed] [the party’s] arguments on reply with too fine of a filter” and noting that the reply “expands the same argument made in [the] Petition”); *Apple Inc. v. Andrea Elec. Corp.*, 949 F.3d 697, 705–07 (Fed. Cir. 2020) (holding that the Board abused its discretion rejecting reply arguments that “relie[d] on the same algorithm from the same prior art reference to support the same legal argument,” “merely demonstrat[ing] another example of the same algorithm to further explain [its original legal position]”); cf. *Chamberlain Grp., Inc. v. One World Techs., Inc.*, 944 F.3d 919, 925 (Fed. Cir. 2019) (affirming the Board’s consideration of a purportedly “new argument” presented by the patent owner at oral argument that “was not a new argument for patentability, but a clarification of its prior position in response to arguments raised in [petitioner’s] reply”).

Those standards do not exhaust the universe of all possible scenarios, but they suffice to decide the present case. As the cited cases illustrate, the standards call for judgments in particular cases to distinguish impermissible new argument or evidence from permissible reinforcement (in responding to a patent owner’s response) of a point already made with the required support in the petition. When the Board makes those judgments, we have reviewed them for

abuse of discretion. See *Ericsson*, 901 F.3d at 1379; *Intelligent Bio-Systems*, 821 F.3d at 1367; see also *MModal LLC v. Nuance Commc'ns, Inc.*, 846 F. App'x 900, 906 (Fed. Cir. 2021); *Altaire Pharms., Inc. v. Paragon Biotech, Inc.*, 889 F.3d 1274, 1284 (Fed. Cir. 2018), *remand order modified by stipulation*, 738 F. App'x 1017 (Fed. Cir. 2018). “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.” *Intelligent Bio-Systems*, 821 F.3d at 1367 (citation omitted).

Here, in addressing claim 7's limitation (b), the Board cited the statutory standard for a petition's contents through its quotation from *Intelligent Bio-Systems*, and it also cited the regulatory standard for reply material. *Final Written Decision* at *20, *24. In addition, the Board addressed the persuasiveness of the petition's showing concerning this limitation and the persuasiveness of the reply-stage showing. *Id.* at *21–22, *25–26. As we read the Board's decision, the Board found the petition's showing to be both insufficient under the statutory petition-contents standard and unpersuasive on the merits, and the Board found the reply material impermissible and also unpersuasive on the merits. In Section B, we consider AMC's compliance with the filing-content rules—the statutory and regulatory rules governing petition and reply filings. In Section C, we address the merits issues.

B

1

We readily conclude that in two respects the Board did not abuse its discretion in its decision about the inadequacy of AMC's petition and the untimeliness of reply material. First, regarding AMC's Hancock–Falls ground, the Board could reasonably conclude that AMC's petition was inadequate regarding claim 7's limitation (b). The relevant

section of the petition did not even directly address the automatic transfer requirement. *See* J.A. 191–92. Second, regarding Barbosa–Falls, the Board could reasonably conclude that the reply argument that the requirement was found in an obvious modification of Barbosa, *see* J.A. 429–31, was a change of legal argument, not fairly understood to have been adequately presented in the relevant section of the petition itself. The only direct discussion of automatic transfer in the relevant section of the petition concerns what Barbosa itself taught. (AMC’s reply did not point to Falls as meeting the “automatic” transfer requirement or argue that the discussion of Falls in the above-quoted section of the petition had done so. J.A. 429–31.)

Under the standards described above, the Board did not abuse its discretion in rejecting AMC’s attempt to show obviousness on those two bases. As to those rulings, we affirm the Board’s decision. What remains for further review is the Board’s treatment of AMC’s contention that Barbosa itself taught the automatic downstream transfer required by claim 7’s limitation (b).

2

As to that aspect of the Board’s ruling, we conclude that the Board abused its discretion in finding AMC’s petition inadequate and in deeming AMC’s reply material impermissible. The crucial error was the Board’s reading of the relevant section of AMC’s petition, J.A. 161–62, quoted in full above.

That discussion begins with an express assertion that Barbosa disclosed an “automatic[]” downstream transfer of designed questions, citing specific sections of Barbosa, J.A. 161. Those cited sections of Barbosa refer to “synchronization” of “field assessment data” between a remote server and a handheld user device on a wireless network. J.A. 662–63. A paragraph break in AMC’s presentation follows, and the next paragraph explains that very assertion; contrary to the Board’s apparent view, it does not shift to a

different aspect of limitation (b). After all, it is the synchronization required on a wireless network, a kind of network in which connections are intermittent (“loosely connected”), that is the basis for the automatic-transfer assertion.³

Thus, the opening sentence of the new paragraph asserts that Barbosa involves “at least one loosely networked computer,” ’748 patent, claim 7, limitation (b), and the next sentence provides immediate support by quoting the statement from Barbosa’s Abstract referring to “[f]ield assessment data synchronization” on “wireless” networks. J.A. 161 (quoting J.A. 651). The very next sentence makes explicit the connection of the network setting to “automatic” transfer: “A POSITA would understand that during synchronization on a wireless network, data is automatically transferred when a connection is available, and temporarily stored for later transmission when a connection is unavailable, as this was a well-known characteristic of network communication protocols that relied on synchronization for transmission and delivery over a wireless network at the time.” *Id.* (citing Román Decl. ¶ 177, J.A. 813). The paragraph ends by stating that the synchronization was needed “at that time given the unreliable nature of existing wireless data connections.” J.A. 161–62.

In these circumstances, it was unreasonable for the Board to conclude, first in the institution decision and then in the final written decision, that AMC did not say enough in its petition on the point at issue. AMC expressly stated that Barbosa taught the automatic transfer, provided a simple and easily understood explanation of why (the synchronization necessary in a wireless context would be understood as automatic), and cited support, both in Barbosa

³ The Board construed “loosely connected” as tied to intermittent connections. *Final Written Decision* at *4.

and from its expert—all in two immediately adjoining paragraphs that were closely connected in substance, in that the second explained and justified the first. This situation is quite different from the situation presented in *MModal*, 846 F. App'x at 906–07, where we refused to disturb the Board's determination of insufficiency of the specific petition section on the claim limitation at issue, despite other material in the petition not clearly enough invoked as connected to the specific section. To the extent that the Board deemed inadequate AMC's pleading of Barbosa's teaching of the automatic transfer requirement, the Board abused its discretion.

Under authorities discussed above, it follows that when Fall Line, in its patent owner's response, simply repeated the institution decision's skepticism about the sufficiency of the petition's presentation, AMC was entitled, on reply, to respond to Fall Line (which meant responding to the institution decision) by presenting argument and evidence to show why its petition presentation was correct about Barbosa's teaching. We conclude that AMC did so in its reply material on Barbosa and claim 7's limitation (b) and, therefore, that the Board abused its discretion in disregarding AMC's reply material. AMC explained its petition point that (as AMC said in reply) “Barbosa discloses an interactive environment that allows two-way communications between a remote device and a server, including automatic synchronization and information transfers.” J.A. 429. AMC pointed again to its expert's explanation of that point, along with supplemental expert explanation, and it discussed newly cited passages in Barbosa as describing particular embodiments of the synchronization and related features identified more generally in the passages that AMC had cited in the petition. J.A. 429–30 (discussing above-cited passages from columns 10–12 of Barbosa, the Román Declaration, J.A. 813, and the Román Reply Declaration, J.A. 1565–68). This material does not involve a new rationale or explanation—rather, it is offered to show why

the synchronization and two-way communication cited in the petition do in fact involve automatic transfer of a questionnaire. Through this material, AMC was permissibly “explaining how its original petition was correct.” *Wasica*, 853 F.3d at 1286.

The Board had to consider the reply material on its merits, together with the petition’s presentation, properly understood, to assess the persuasiveness of AMC’s case in toto.

C

The Board’s misunderstanding of the relevant section of the petition infected its assessment of the persuasiveness of that presentation, *i.e.*, whether AMC showed Barbosa’s teaching of the requirement at issue by a preponderance of the evidence. That is a factual question for the Board in the first instance, which in this case justifies a remand, especially because reply evidence must also be reconsidered. *See, e.g., Singh v. Brake*, 222 F.3d 1362, 1370 (Fed. Cir. 2000). As to the reply evidence, when the Board addressed AMC’s reply material, it set forth reasoning that is inadequate in a way that itself justifies a remand for further consideration and explanation. *See, e.g., Personal Web Techs., LLC v. Apple, Inc.*, 848 F.3d 987, 992–94 (Fed. Cir. 2017); *In re Van Os*, 844 F.3d 1359, 1361–62 (Fed. Cir. 2017); *In re Nuvasive, Inc.*, 842 F.3d 1376, 1382 (Fed. Cir. 2016).

The Board determined that even if it were to consider AMC’s reply arguments, AMC failed to establish that Barbosa taught the automatic transfer of an *executable* questionnaire. *Final Written Decision* at *20–22. The Board’s only reasoning was to highlight the fact that AMC’s expert, in explaining why Barbosa disclosed an automatic transfer, did not explicitly map what was transferred to an *executable* questionnaire. *Id.* at *21–22. Elsewhere, however, including in a section of its petition to which its claim 7 limitation (b) section refers, AMC argued that Barbosa

discloses the transfer of a “tokenized” questionnaire, which AMC has argued implies executability. *See, e.g.*, J.A. 138–40 (cross-referenced at J.A. 161); J.A. 417–20 (in discussing other claims in reply, invoking Barbosa’s column 12 reference to Java applets in arguing “tokenized, executable questionnaire”); Petition for Inter Partes Review at 26, *American Multi-Cinema, Inc. v. Fall Line Patents, LLC*, IPR2019-00610, Paper No. 7 (P.T.A.B. Jan. 22, 2019). As noted above, moreover, the Board relied on some of the AMC reply-cited portions of Barbosa in discussing related requirements of other claims. *Final Written Decision* at *8–10.

The Board did not address such material. Nor did it explain what “executable” means in this setting—a term about which AMC’s counsel offered somewhat restrictive views in this court. *See* Oral Arg. at 17:03–20:42, 42:50–47:25, http://oralarguments.cafc.uscourts.gov/default.aspx?fl=21-1051_08312021.mp3. The Board seems to have assumed that the reply-cited passages did disclose an automatic transfer of *something*, but it did not provide an explanation, considering all the material properly before it, why what was automatically transferred in those passages, *e.g.*, the passages involving Java applets, did not meet the requirement of being executable. The Board’s analysis leaves us unable adequately to discern the basis of its rejection of AMC’s reply analysis on its merits or ultimately to determine its soundness under the applicable standard of review. *See Intelligent Bio-Systems*, 821 F.3d at 1366 (“Substantial evidence review asks ‘whether a reasonable fact finder could have arrived at the agency’s decision’ and requires examination of the ‘record as a whole, taking into account evidence that both justifies and detracts from an agency’s decision.’” (quoting *In re Gartside*, 203 F.3d 1305, 1312 (Fed. Cir. 2000))); *Icon Health & Fitness, Inc. v. Strava, Inc.*, 849 F.3d 1034, 1043–44 (Fed. Cir. 2017). This

deficiency calls for a remand for further analysis. *See Personal Web*, 848 F.3d at 992.⁴

III

For the foregoing reasons, we affirm the Board's rejection of AMC's contentions regarding claim 7's limitation (b) except for AMC's reliance on the teaching of Barbosa; we vacate the Board's decision rejecting AMC's unpatentability challenge to claim 7 based on Barbosa combined with Falls; and we remand for further proceedings consistent with this opinion.

The parties shall bear their own costs.

**AFFIRMED IN PART, VACATED IN PART, AND
REMANDED**

⁴ Having determined that AMC failed to prove that Barbosa taught limitation (b) of claim 7, the Board did not reach the dispute over limitation (f). On remand, if the Board alters its present conclusion on limitation (b), it should reach the dispute over limitation (f).