

United States Court of Appeals for the Federal Circuit

AYLUS NETWORKS, INC.,
Plaintiff-Appellant

v.

APPLE INC.,
Defendant-Appellee

2016-1599

Appeal from the United States District Court for the Northern District of California in No. 3:13-cv-04700-EMC, Judge Edward M. Chen.

Decided: May 11, 2017

AMARDEEP LAL THAKUR, Quinn Emanuel Urquhart & Sullivan, LLP, Los Angeles, CA, argued for plaintiff-appellant. Also represented by BRUCE R. ZISSER; JOSHUA L. SOHN, Washington, DC.

MARK D. FOWLER, DLA Piper US LLP, East Palo Alto, CA, argued for defendant-appellee. Also represented by ROBERT BUERGI, CHRISTINE K. CORBETT, ERIK RYAN FUEHRER; STANLEY JOSEPH PANIKOWSKI, III, San Diego, CA.

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

STOLL, *Circuit Judge*.

Aylus Networks, Inc. appeals the United States District Court for the Northern District of California’s grant of summary judgment finding that Apple Inc.’s AirPlay feature does not infringe the asserted claims of U.S. Patent No. RE 44,412. For the reasons below, we affirm.

BACKGROUND

I.

The ’412 patent “provides systems and methods for implementing digital home networks having a control point located on a wide area network.” ’412 patent col. 5 ll. 35–37. The specification explains that as bandwidth provided by wireless networks increases, these networks, such as 3G networks, “are now expected to provide broadcast content, video telephony, multimedia conferencing, video streaming services, file upload and download services, and interactive multimedia services.” *Id.* at col. 4 l. 60 – col. 5 l. 3. But the availability of network coverage supporting these multimedia services is uneven, because “[i]n some areas several networks may be available simultaneously that could be used by a handset, whereas in other regions there may be insufficient coverage to support a given network service.” *Id.* at col. 5 ll. 4–8. The specification also describes “an inherent disadvantage” to using handsets due to their small screen sizes, which are not amenable to long viewing periods or being jointly viewed by multiple users. *Id.* at col. 5 ll. 14–24.

To overcome these disadvantages, the patent teaches various network architectures for streaming and displaying media content using combinations of networked components. These networked components include: (1) a media server (MS); (2) a media renderer (MR); (3) control point (CP) logic that includes logic to negotiate media

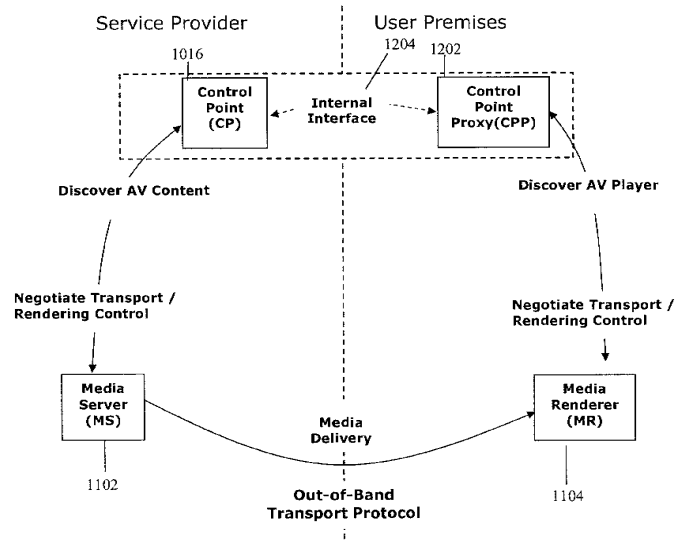
content delivery with at least one of an MS and an MR; and (4) control point proxy (CPP) logic that includes:

- (i) logic to negotiate media content delivery with at least one of an MS and an MR, (ii) logic to cooperate with CP logic to negotiate media content delivery between an MS and an MR, and (iii) VCR controls to control a presentation of content provided by the MS and rendered by the MR.

Id. at col. 5 ll. 56–62. In one embodiment, “[t]he control point and control point proxies cooperatively negotiate media delivery from a user-selected media server, such as a home stereo or DVD player, to a user-selected media renderer, such as a TV display or the display on a handset.” *Id.* at col. 5 ll. 42–48.

The specification further explains that when one of an MS and an MR are not in communication with the user endpoint device (“UE”) via a local wireless network, both the CP logic and CPP logic are invoked to cooperatively negotiate media content delivery between the MS and MR. When both an MS and an MR are in communication with the UE via a local wireless network, however, “[t]he CPP logic is invoked to negotiate media content delivery between” the MS and MR. *Id.* at col. 6 ll. 5–8. Finally, when neither an MS nor an MR are in communication with the UE via a local wireless network, “[t]he CP logic is invoked to negotiate media content delivery between” the MS and MR. *Id.* at col. 6 ll. 9–12.

The architecture of the networked components of one embodiment is depicted in Figure 12:



'412 patent Fig. 12. Claims 2 and 21 are at issue in this appeal.¹ Because claim 2 is dependent upon claim 1, we reproduce both claims below:

1. A method of controlling and delivering media content from a media server (MS) to a media renderer (MR) utilizing a wide area network for control, comprising the acts of:

provisioning a serving node in the wide area network with control point (CP) logic that includes logic to negotiate media content delivery with at least one of the MS and the MR, wherein the CP logic, MS, and MR resides outside of a user endpoint (UE) and the CP logic resides in the

¹ Aylus concedes that asserted claim 21 “is substantially identical to asserted claim 2 and contains the same [contested] limitation.” Appellant Br. 10. For these reasons, we only reproduce claim 2.

signaling domain and serves as a first proxy;

provisioning the UE of the wide area network with control point proxy (CPP) logic that includes (i) logic to negotiate media content delivery with at least one of the MS and the MR, (ii) logic to cooperate with CP logic to negotiate media content delivery between the MS and the MR, and (iii) video cassette recorder (VCR) controls to control a presentation of content provided by the MS and rendered by the MR, wherein the CPP logic resides in the UE and serves as a second proxy;

in response to a media content delivery request, determining a network context of the UE and a network connectivity of the MS and MR;

invoking the CPP logic and the CP logic to cooperatively negotiate media content delivery between the MS and the MR if one of the MS and MR are not in communication with the UE via a local wireless network; and

once media content delivery is negotiated, controlling a presentation of delivery via the VCR controls on the UE.

2. The method of claim 1, *wherein the CPP logic is invoked to negotiate media content delivery between the MS and the MR* if the MS and MR are both in communication with the UE via a local wireless network.

'412 patent col. 24 ll. 37–67 (contested limitation emphasized).

II.

Aylus sued Apple for infringement of the '412 patent. Apple then filed two separate petitions for inter partes review with the Patent Trial and Appeal Board, each challenging different claims of the '412 patent.² The Board instituted an IPR proceeding on the petition challenging all claims of the '412 patent. But the Board denied institution as to claims 2, 4, 21, and 23. Following institution, Aylus filed a notice of voluntary dismissal in the district court, dismissing with prejudice its infringement contentions as to all of the asserted claims, except as to claims 2 and 21. Apple subsequently filed a motion for summary judgment of noninfringement of claims 2 and 21, arguing that it does not practice the limitation “wherein the CPP logic is invoked to negotiate media content delivery between the MS and the MR” recited in both asserted claims.

In its order on Apple’s summary judgment motion, the district court construed the limitation “wherein the CPP logic is invoked to negotiate media content delivery between the MS and the MR” to “require that only the CPP logic is invoked to negotiate media content delivery between the MS and the MR, in contrast to claims 1 and 20 which require both the CP and CPP to negotiate media content delivery.” *Aylus Networks, Inc. v. Apple Inc.*, No. 13-cv-04700-EMC, 2016 WL 270387, at *6 (N.D. Cal. Jan. 21, 2016) (*Summary Judgment Order*). Based on this construction, the district court granted summary judgment of noninfringement of claims 2 and 21 of the '412 patent. *Id.* at *7.

² One of Apple’s petitions challenged claims 1, 2, 5, 8, 9, 15, 20, 21, 27, 29, and 33 of the '412 patent, on which the Board did not institute. The other petition challenged all claims of the '412 patent.

Aylus appeals, disputing the district court’s construction of “wherein the CPP logic is invoked to negotiate media content delivery between the MS and the MR” and asserting that the district court erred in granting summary judgment of noninfringement of claims 2 and 21 of the ’412 patent. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

DISCUSSION

The “ultimate interpretation” of a claim term, as well as interpretations of “evidence intrinsic to the patent (the patent claims and specifications, along with the patent’s prosecution history),” are legal conclusions, reviewed by this court de novo. *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015). “Subsidiary factual determinations based on extrinsic evidence are reviewed for clear error.” *Info-Hold, Inc. v. Applied Media Techs. Corp.*, 783 F.3d 1262, 1265 (Fed. Cir. 2015) (citing *Teva*, 135 S. Ct. at 841).

The purpose of claim construction is to give claim terms the meaning understood by a person of ordinary skill in the art at the time of invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc). “There is a heavy presumption that claim terms are to be given their ordinary and customary meaning.” *Aventis Pharm. Inc. v. Amino Chems. Ltd.*, 715 F.3d 1363, 1373 (Fed. Cir. 2013). “Properly viewed, the ‘ordinary meaning’ of a claim term is its meaning to the ordinary artisan after reading the entire patent.” *Phillips*, 415 F.3d at 1321. A patent’s prosecution history, though generally “‘less useful for claim construction purposes’ than the claim language and written description, plays various roles in resolving uncertainties about claim scope.” *SAS Inst., Inc. v. ComplementSoft, LLC*, 825 F.3d 1341, 1349 (Fed. Cir. 2016) (quoting *Phillips*, 415 F.3d at 1317). We have recognized that “the prosecution history can often inform the meaning of the claim language by demonstrat-

ing how the inventor understood the invention.” *Phillips*, 415 F.3d at 1317.

In construing the “wherein the CPP logic is invoked to negotiate media content delivery between the MS and the MR” limitation, the district court relied on statements made by Aylus in its preliminary responses to Apple’s petitions for IPR of the ’412 patent, finding the statements “akin to prosecution disclaimer.” *Summary Judgment Order*, at *5. On appeal, Aylus argues that statements made during an IPR cannot be relied on to support a finding of prosecution disclaimer. Alternatively, Aylus argues that its statements did not constitute a clear and unmistakable disclaimer of claim scope. We address these arguments in turn.

I.

We must initially determine an issue of first impression for this court: whether statements made by a patent owner during an IPR proceeding can be relied on to support a finding of prosecution disclaimer during claim construction. As explained below, we hold that they can.

A.

Prosecution disclaimer “preclud[es] patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution.” *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003). “[F]or prosecution disclaimer to attach, our precedent requires that the alleged disavowing actions or statements made during prosecution be both clear and unmistakable.” *Id.* at 1325–26. “Thus, when the patentee unequivocally and unambiguously disavows a certain meaning to obtain a patent, the doctrine of prosecution history disclaimer narrows the meaning of the claim consistent with the scope of the claim surrendered.” *Biogen Idec, Inc. v. GlaxoSmithKline LLC*, 713 F.3d 1090, 1095 (Fed. Cir. 2013). Such disclaimer can occur through amendment or

argument. See *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985). In *Standard Oil*, we explained, in the context of disclaimer, that the prosecution history “includes all express representations made by or on behalf of the applicant to the examiner to induce a patent grant . . . includ[ing] amendments to the claims and arguments made to convince the examiner.” *Id.*

This doctrine is deeply rooted in Supreme Court precedent. See, e.g., *Roemer v. Peddie*, 132 U.S. 313, 317 (1889). As the Supreme Court has explained, “when a patentee, on the rejection of his application, inserts in his specification, in consequence, limitations and restrictions for the purpose of obtaining his patent, he cannot after he has obtained it, claim that it shall be construed as it would have been construed if such limitations and restrictions were not contained in it.” *Id.*

Over time, prosecution disclaimer has become “a fundamental precept in our claim construction jurisprudence,” which “promotes the public notice function of the intrinsic evidence and protects the public’s reliance on definitive statements made during prosecution.” *Omega Eng’g*, 334 F.3d at 1323–24. The doctrine is rooted in the understanding that “[c]ompetitors are entitled to rely on those representations when determining a course of lawful conduct, such as launching a new product or designing-around a patented invention.” *Biogen*, 713 F.3d at 1095. Similarly, we have explained that the prosecution history “provides evidence of how the [PTO] and the inventor understood the patent.” *Id.* (quoting *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1327 (Fed. Cir. 2009) (alteration in original)). Ultimately, the doctrine of prosecution disclaimer ensures that claims are not “construed one way in order to obtain their allowance and in a different way against accused infringers.” *Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed. Cir. 1995).

B.

Though this doctrine arose in the context of pre-issuance prosecution, we have also applied the doctrine in other post-issuance proceedings before the PTO. We have, for example, applied the doctrine based on statements made during reissue proceedings, holding that “all express representations made by or on behalf of the applicant to the examiner to . . . reissue a patent . . . limit[] the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance.” *Standard Oil*, 774 F.2d at 452; *see also E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1439 (Fed. Cir. 1988) (finding that statements made during a merged reissue/reexamination proceeding “are relevant prosecution history when interpreting claims”); *Howes v. Med. Components, Inc.*, 814 F.2d 638, 645 (Fed. Cir. 1987).

We have also applied the doctrine based on statements made in reexamination proceedings, holding that a “patentee’s statements during reexamination can be considered during claim construction, in keeping with the doctrine of prosecution disclaimer.” *Krippelz v. Ford Motor Co.*, 667 F.3d 1261, 1266 (Fed. Cir. 2012); *see also Am. Piledriving Equip., Inc. v. Geoquip, Inc.*, 637 F.3d 1324, 1336 (Fed. Cir. 2011); *In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1324–25 (Fed. Cir. 2011) (finding no error in district court’s claim construction based on an argument made during reexamination to avoid prior art).

It follows that we should apply the doctrine in IPR proceedings before the PTO. Extending the prosecution disclaimer doctrine to IPR proceedings will ensure that claims are not argued one way in order to maintain their patentability and in a different way against accused infringers. *See Southwall Techs.*, 54 F.3d at 1576. In

keeping with the underlying purposes of the doctrine, this extension will “promote[] the public notice function of the intrinsic evidence and protect[] the public’s reliance on definitive statements made during” IPR proceedings. *Omega Eng’g*, 334 F.3d at 1324.

Aylus argues that statements made during an IPR proceeding are unlike those made during a reissue or reexamination proceeding because an IPR proceeding is an adjudicative proceeding as opposed to an administrative proceeding. This argument is belied by the recent Supreme Court decision in *Cuozzo Speed Technologies, LLC v. Lee*, 136 S. Ct. 2131 (2016).

In *Cuozzo*, the Supreme Court recognized that an IPR proceeding involves the reexamination of a patent. *Id.* at 2143–44. Specifically, the Supreme Court, analyzing the competing adjudicatory and administrative characteristics of an IPR proceeding, explained that, in some “significant respects, inter partes review is less like a judicial proceeding and more like a specialized agency proceeding.” *Id.* at 2143. These characteristics include: (1) parties that initiate an IPR need not have a concrete stake in its outcome; (2) a petitioner is not required to remain in an IPR, and the PTO may continue to conduct an IPR after a petitioner has settled; (3) the PTO can intervene in a later judicial proceeding to defend its decision; and (4) unpatentability in an IPR must be established by a preponderance of the evidence whereas invalidity in a district court must be established by clear and convincing evidence. *Id.* at 2143–44.

Summarizing the effect of these administrative characteristics, the Court explained that:

these features, as well as inter partes review’s predecessors, indicate that the purpose of the proceeding is not quite the same as the purpose of district court litigation. The proceeding involves what used to be called a *reexamination* (and . . . a

cousin of inter partes review, ex parte reexamination, 35 U.S.C. § 302 *et seq.*, still bears that name). The name and accompanying procedures suggest that the proceeding offers a second look at an earlier administrative grant of a patent. Although Congress changed the name from “reexamination” to “review,” nothing convinces us that, in doing so, Congress wanted to change its basic purposes, namely, to reexamine an earlier agency decision.

Id. at 2144.

Because an IPR proceeding involves reexamination of an earlier administrative grant of a patent, it follows that statements made by a patent owner during an IPR proceeding can be considered during claim construction and relied upon to support a finding of prosecution disclaimer. *See Krippelz*, 667 F.3d at 1266. Of course, to invoke the doctrine of prosecution disclaimer, any such statements must “be both clear and unmistakable.” *Omega Eng’g*, 334 F.3d at 1326.

We note that many district courts have addressed this issue and have likewise concluded that statements made by patent owners during an IPR can be considered for prosecution disclaimer. *See Ilife Techs., Inc. v. Nintendo of Am., Inc.*, No. 3:13-cv-04987, 2017 WL 525708, at *7 (N.D. Tex. Feb. 9, 2017) (“[S]tatements during the IPR may be considered for prosecution disclaimer.”); *Signal IP, Inc. v. Fiat U.S.A., Inc.*, No. 14-cv-13864, 2016 WL 5027595, at *16 (E.D. Mich. Sept. 20, 2016) (finding that “statements in the prosecution history, particularly during the recent IPR proceeding are unmistakable statements disavowing the plain and ordinary meaning of” a claim term).³ We endorse this conclusion.

³ *See also Wonderland Nurserygoods Co. v. Kids II, Inc.*, No. 1:13-CV-01114-ELR, 2016 WL 4035521, at *1

C.

Aylus next argues that its statements were not part of an IPR proceeding because they were made in a preliminary response before the Board issued its institution decision. We disagree.

An IPR proceeding is a two-step process: “the Director’s decision whether to institute a proceeding, followed (if the proceeding is instituted) by the Board’s conduct of the proceeding and decision with respect to patentability.” *St. Jude Med., Cardiology Div., Inc. v. Volcano Corp.*, 749 F.3d 1373, 1375–76 (Fed. Cir. 2014). We have said that an “IPR does not begin until it is instituted,” *Shaw Indus. Grp., Inc. v. Automated Creel Sys., Inc.*, 817 F.3d 1293, 1300 (Fed. Cir. 2016), but for the purposes of prosecution disclaimer, we find the differences between the two phases of an IPR to be a distinction without a difference. A patent owner’s preliminary response filed *prior* to an institution decision and a patent owner’s response filed *after* institution are both official papers filed with the PTO and made available to the public. In both official papers, the patent owner can define claim terms and otherwise make representations about claim scope to

(N.D. Ga. Mar. 16, 2016) (adopting report and recommendation from special master, *see* 2016 WL 3958733, at *6 (N.D. Ga. Feb. 10, 2016)); *Anglefix, LLC v. Wright Med. Tech., Inc.*, No. 2:13-cv-02407-JPM-TMP, 2015 WL 9581865, at *7 (W.D. Tenn. Dec. 30, 2015); *Samuels v. Trivascular Corp.*, No. 13-cv-02261-EMC, 2015 WL 7015330, at *6 (N.D. Cal. Nov. 12, 2015); *Cellular Commc’ns Equip. LLC v. HTC Corp.*, No. 6:13-cv-507, 2015 WL 3464733, at *5–6 (E.D. Tex. June 1, 2015); *Evolutionary Intelligence, LLC v. Sprint Nextel Corp.*, No. C–13–04513, 2014 WL 4802426, at *4 (N.D. Cal. Sept. 26, 2014); *Zillow, Inc. v. Trulia, Inc.*, No. C12–1549JLR, 2013 WL 5530573, at *2 (W.D. Wash. Oct. 7, 2013).

avoid prior art for the purposes of either demonstrating that there is not a reasonable likelihood that the claims are unpatentable on the asserted grounds or demonstrating that the challenger has not shown by a preponderance of the evidence that the claims are unpatentable on the asserted grounds. Regardless of when the statements are made during the proceeding, the public is “entitled to rely on those representations when determining a course of lawful conduct, such as launching a new product or designing-around a patented invention.” *Biogen*, 713 F.3d at 1095.

In conclusion, we hold that statements made by a patent owner during an IPR proceeding, whether before or after an institution decision, can be considered for claim construction and relied upon to support a finding of prosecution disclaimer.

II.

Now that we have determined that prosecution disclaimer can apply to statements made by a patent owner in a preliminary response to an IPR, we consider whether Aylus’s statements constitute a clear and unmistakable surrender of claim scope. Aylus argues that they do not. We disagree.

Apple filed two petitions for IPR to review the patentability of the ’412 patent. Aylus filed a preliminary response in both proceedings. In its response, Aylus told the PTO that there were “a number of substantial differences between the challenged claims and the asserted references.” J.A. 971. Aylus explained that independent claims 1 and 20 “require that the control point logic and control point proxy logic both be invoked to ‘cooperatively negotiate media content delivery between the MS and the MR’ if it is determined that ‘one of the MS and MR are not in communication with the UE via a local wireless network.’” J.A. 973, 1039 (quoting ’412 patent col. 24 ll. 58–61 (claim 1)). Distinguishing dependent claims 2, 4, 21,

and 23, Aylus explained that these claims “require that *only* the control point logic (or only the control point proxy logic) be invoked if it is determined that neither (or both) the MS or the MR are in communication with the UE via the local wireless network.” *Id.* (emphasis added). “In other words,” Aylus explained, “the challenged claims require *selectively invoking* the CP logic and/or CPP logic based on whether the MS and/or MR can communicate with the UE through the local network.” *Id.* (emphasis added). Aylus explained that “this is a key aspect of the claimed invention, which addresses an important objective, namely: *reducing* the use of expensive bandwidth (e.g., wide area cellular networks) by implementing a *least-cost routing decision* about how to negotiate media content delivery that utilizes the less costly local wireless network whenever possible.” *Id.* (emphasis added).

Aylus repeated these same statements later in its response when distinguishing the specific prior art references cited in the petition. Specifically, Aylus made the following statement as to claims 2 and 21: “If, however, ‘the MS and MR are both in communication with the UE via a local wireless network,’ then *only* ‘the CPP [logic] is invoked to negotiate media content delivery between the MS and the MR.’” J.A. 1004, 1068 (emphasis added) (quoting ’412 patent col. 24 ll. 64–67 (claim 2)). Aylus reiterated the objective of this architecture, namely that “these steps serve the key purpose of enabling the claimed invention to use a local wireless network whenever such a network is available in order to reduce the ‘wireless spectrum-consuming communications.’” *Id.* (quoting ’412 patent col. 16 ll. 33–34).

The Board did not institute IPR as to claims 2 and 21, finding that Apple had not demonstrated a reasonable likelihood that it would prevail in showing that claims 2 and 21 would have been obvious. The Board explained that it was unclear from Apple’s petition how the asserted prior art met the limitations of claims 2 and 21 in which

“the CPP logic *exclusively* handles the negotiation of media content delivery between the MS and MR.” J.A. 842 (emphasis added).

Relying on Aylus’s statements to the Board during the IPR proceeding, which the district court described as “akin to prosecution disclaimer,” *Summary Judgment Order*, at *5, the district court concluded that “claims 2 and 21 require that only the CPP logic is invoked to negotiate media content delivery between the MS and the MR, in contrast to claims 1 and 20 which require both the CP and CPP to negotiate media content delivery,” *id.* at *6.

We agree with the district court that Aylus’s statements to the Board during the IPR proceeding regarding claims 2 and 21 constitute a clear and unmistakable surrender of methods invoking the CP logic in the negotiation of media content delivery between the MS and the MR if the MS and MR are both in communication with the UE via a local wireless network. Aylus’s repeated statements that claims 2 and 21 “require that . . . only the control point proxy logic[] be invoked,” J.A. 973, 1039, and that “only ‘the CPP is invoked,’” J.A. 1004, 1068, represent an unequivocal and unambiguous disavowal of the CP logic’s invocation. Based on this disclaimer, we see no error in the district court’s claim construction.

Aylus argues that these statements are not a clear and unmistakable surrender of claim scope because they “can reasonably be interpreted to mean that ‘only’ the CPP logic is *required* to be invoked in those claims—not that the *CP logic* is *precluded* from being invoked.” Appellant Br. at 30–31. Aylus argues that this interpretation is best understood in the context of surrounding statements. After each of the disclaiming statements, Aylus explained that these disclosed architectures accomplish a key aspect of the invention: the reduction of bandwidth. Aylus argues that, had it intended to eliminate

the possible invocation of the CP logic in claims 2 and 21, it would have explained that the key aspect of the invention is the *elimination* of bandwidth.

We have held that, “when a prosecution argument is subject to more than one reasonable interpretation, it cannot rise to the level of a clear and unmistakable disclaimer.” *Biogen*, 713 F.3d at 1100. Aylus’s interpretation, however, is not reasonable. When Aylus explained that the reduction of bandwidth is a key aspect of its invention, it did so in relation to all of the various network architectures described in claims 1, 2, 4, 20, 21, and 23: (1) where the CPP logic and CP logic are invoked (claims 1 and 20); (2) where the CPP logic is invoked (claims 2 and 21); and (3) where the CP logic is invoked (claims 4 and 23). The reduction of bandwidth is consistent with all of these architectures, whereas the elimination of bandwidth would only be consistent with the architecture in claims 2 and 21. These surrounding statements do not change the plain meaning of Aylus’s disavowing statements. At oral argument, Aylus even conceded that the plain meaning of these statements suggests that the CP logic cannot be invoked. *See* Oral Arg. at 5:13–27, <http://oralarguments.cafc.uscourts.gov/default.aspx?fl=2016-1599.mp3>. Accordingly, we hold that Aylus’s statements in the IPR proceeding are a clear and unmistakable surrender of methods invoking the CP logic in claims 2 and 21, and based on these disclaiming statements, we see no error in the district court’s claim construction or its grant of summary judgment of noninfringement.

Finally, we note that the claim language and specification of the ’412 patent are consistent with and further support the district court’s claim construction. Claims 2 and 21 disclose that “the CPP logic is invoked to negotiate media content delivery between the MS and the MR if the MS and MR are both in communication with the UE via a local wireless network.” ’412 patent col. 24 ll. 64–67.

These claims are narrower than the claims upon which they depend, independent claims 1 and 20, which disclose “invoking the CPP logic and the CP logic to cooperatively negotiate media content delivery between the MS and the MR if one of the MS and MR are not in communication with the UE via a local wireless network.” *Id.* at col. 24 ll. 58–61.

The specification’s description of the embodiment corresponding to claims 2 and 21 discloses that, “[i]n the case where the UE is in the proximity of both the desired MS and the desired MR and can communicate with them via a [Personal Area Network], such as Wi-Fi, the CPP in the UE negotiates the association between the MS and MR.” *Id.* at col. 17 ll. 50–53. The specification further explains that, “[i]n this case there is no need to involve the CP in the [serving node], since this would involve unnecessary use of wireless bandwidth.” *Id.* at col. 17 ll. 53–55. Neither the claim language nor the specification suggests that the CP logic is invoked in the method of claims 2 and 21. This is consistent with the district court’s construction that “claims 2 and 21 require that only the CPP logic is invoked to negotiate media content delivery between the MS and the MR, in contrast to claims 1 and 20 which require both the CP and CPP to negotiate media content delivery.” *Summary Judgment Order*, at *6. Aylus concedes that Apple does not infringe claims 2 and 21 as construed by the district court. *See* Appellant Br. 35. Accordingly, we affirm the district court’s claim construction and grant of summary judgment of non-infringement.

CONCLUSION

We have considered Aylus’s remaining arguments and find them unpersuasive. Accordingly, we hold that statements made by a patent owner during an IPR proceeding, whether before or after an institution decision, can be relied upon to support a finding of prosecution disclaimer. Here, we find that Aylus’s statements during

an IPR proceeding were a clear and unmistakable disavowal of claim scope. Based on this disclaimer, we affirm the district court's claim construction and grant of summary judgment of non-infringement.

AFFIRMED

COSTS

Costs to Appellee.