

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ZYXEL COMMUNICATIONS CORPORATION,
Petitioner,

v.

UNM RAINFOREST INNOVATIONS,
Patent Owner.

IPR2021-00734
Patent 8,265,096 B2

Before KRISTEN L. DROESCH, BARBARA A. PARVIS, and
CHARLES J. BOUDREAU, *Administrative Patent Judges*.

DROESCH, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

Granting Motion for Joinder
35 U.S.C. § 315(c); 37 C.F.R. § 42.122(b)

I. INTRODUCTION

A. Background

ZyXEL Communications Corporation (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1–4 and 6–8 (“challenged claims”) of U.S. Patent No. 8,265,096 B2 (Ex. 1001, “’096 Patent”). Pet. 1. Concurrently, Petitioner filed a Motion for Joinder (Paper 3, “Mot.”) seeking to be joined as a party to *Qualcomm, Inc. v. UNM Rainforest Innovations*, IPR2021-00375 (“Qualcomm IPR”). Petitioner timely filed its Motion for Joinder within one month after institution of trial in the Qualcomm IPR, as required by 37 C.F.R. § 42.122(b). UNM Rainforest Innovations (“Patent Owner”) filed a Preliminary Response (Paper 12, “Prelim. Resp.”) to the Petition and an Opposition (Paper 7, “Opp.”) to the Motion for Joinder, to which Petitioner filed a Reply (Paper 8, “Reply to Opp.”). Pursuant to our authorization, Petitioner filed a Reply to the Preliminary Response (Paper 15, “Reply to Prelim. Resp.”) to which Patent Owner filed a Sur-reply (Paper 16, “Sur-reply”). We have authority and jurisdiction under 35 U.S.C. §§ 6, 314 and 37 C.F.R. § 42.4.

For the reasons discussed below, we determine institution of *inter partes* review is warranted on the same grounds instituted in the Qualcomm IPR, and grant Petitioner’s Motion for Joinder.

B. Real Parties in-Interest

Petitioner states that ZyXEL Communications Corporation is the real party in-interest and further identifies its subsidiary ZyXEL Communications Inc., as a possible real party in-interest. *See* Pet. 2–3.

Patent Owner states that the University of New Mexico Board of Regents is an additional real party in-interest. *See* Paper 5, 2.

C. Related Matters

The parties indicate there is an ongoing dispute between Patent Owner and Industrial Technology Research Institute (“ITRI”) in New Mexico state court, concerning ownership of the ’096 Patent. *UNM Rainforest Innovations v. Industrial Technology Research Institute*, No. D-202-CV-2021-02803 (N.M. 2d. Judicial District Court May 4, 2021) (“New Mexico state court proceeding”). Paper 9, 1. Petitioner also informs us that ITRI filed a civil complaint on January 25, 2021, against UNM and Sino Matrix Technology in the Taiwan Hsinchu District Court seeking a declaratory judgment that ITRI is the owner of all rights in the ’096 Patent, among other patents. *See* Pet. 4.

The parties also identify the following matters that they allege may affect or be affected by a decision in this proceeding: *UNM Rainforest Innovations v. ASUSTek Computer, Inc.*, No. 6:20-cv-00142-ADA (W.D. Tex.); *UNM Rainforest Innovations v. Dell Technologies, Inc.*, No. 6:20-cv-00468-ADA (W.D. Tex.); *UNM Rainforest Innovations v. D-Link Corp.*, No. 6:20-cv-00143-ADA (W.D. Tex.); *UNM Rainforest Innovations v. TP-Link Technologies Co.*, No. 6:19-cv-00428-ADA (W.D. Tex.); *UNM Rainforest Innovations v. ZyXEL Communications Corp.*, No. 6:20-cv-00522-ADA (W.D. Tex.). *See* Pet. 3–4; Mot. 3–4; Paper 5, 2; Paper 13, 1. The ’096 Patent also was asserted in *UNM Rainforest Innovations v. Apple Inc.*, No. 1:20-cv-00351 (W.D. Tex.), which has been dismissed. *See* Pet. 3 n.2.

Claims 1–4 and 6–8 of the ’096 Patent were the subject of a petition filed in the Qualcomm IPR, on which *inter partes* review was instituted. *See*

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Pet. 4; Mot. 4; Qualcomm IPR Paper 14 (“Decision on Institution,” “Qualcomm IPR Dec.”). Claims 1–4 and 6–8 of the ’096 Patent also were the subject of a petition filed in *Intel Corp. v. UNM Rainforest Innovations*, IPR2020-01576, which was terminated upon granting a joint motion to terminate. *See* Pet. 3 n.3.

D. The ’096 Patent (Ex. 1001)

The ’096 Patent relates to methods for constructing frame structures for orthogonal frequency-division multiple access (OFDMA) systems. *See* Ex. 1001, 1:16–19.

Figure 6A of the '096 Patent is reproduced below:

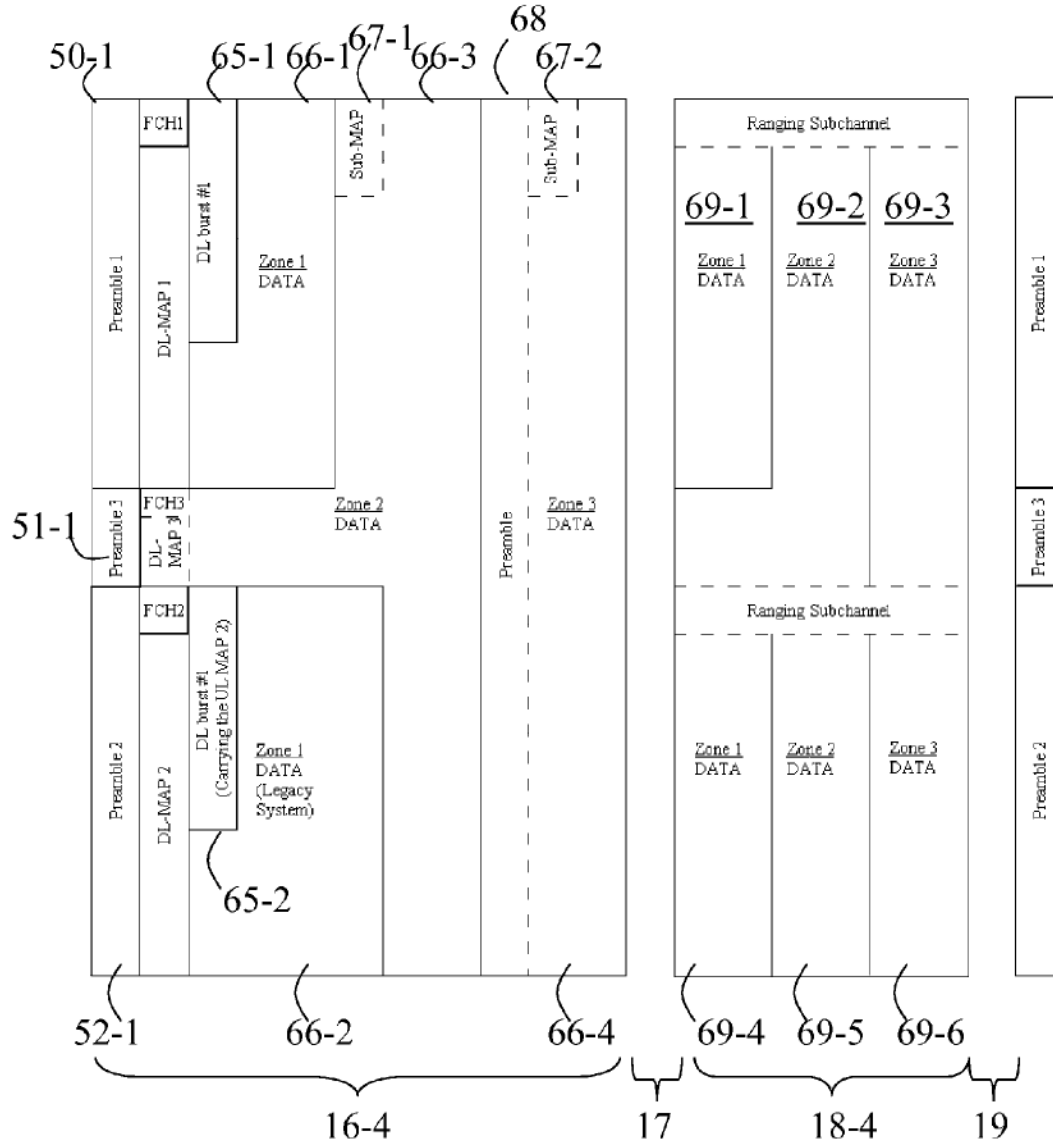


Figure 6A illustrates an OFDMA frame structure supporting high mobility and having a scalable bandwidth. *See* Ex. 1001, 4:1–3, 6:66–7:2. The frame structure includes downlink (DL) sub-frame 16-4 and uplink (UL) sub-frame 18-4. *See id.* at 7:5–7. The frame structure includes added regions related to zones 3 for high-mobility environments. *See id.* at 7:2–5. In DL sub-frame 16-4, a first added region includes preamble 68, a sub-MAP 67-2 and DATA 66-4. *See id.* at 7:5–7. In UL sub-frame 18-4, a

second added region includes DATA 69-3 and 69-6 (zones 3). *See id.* at 7:7–8. DATA 66-4, 69-3, and 69-6 may be allocated for the extended OFDMA system under high mobility. *See id.* at 7:8–10. DL sub-frame 16-4 is divided according to mapping information in DL-MAP 1, DL-MAP 2, and DL-MAP 3, and UL sub-frame 18-4 is divided according to the map information in UL-MAPs in DL burst #1 65-1 and/or 65-2. *See id.* at 7:10–14. A portion of the guard band that overlaps data zones 69-1 and 69-2 in UL sub-frame 18-4 may be used to transmit data in the extended system. *See id.* at 7:14–17. “As compared to the zones in the data region of the DL sub-frame 16-4 or the UL sub-frame 18-4 of the old/legacy system or the new/extended system, the placements of the pilot symbols may be denser, [and] the OFDMA symbol periods may be shorter . . . in zones 3 of UL sub-frame 18-4 or DL sub-frame 16-4 for the extended system under high mobility.” *Id.* at 7:21–27.

E. Illustrative Claims

Claims 1 and 8 are independent and claims 2–4, 6, and 7 depend ultimately from claim 1. Claims 1 and 8 are illustrative and reproduced below:

1. A method of constructing a frame structure for data transmission, the method comprising:
 - generating a first section comprising data configured in a first format compatible with a first communication system using symbols;
 - generating a second section following the first section, the second section comprising data configured in a second format compatible with a second communication system using symbols, wherein the first communication system’s symbols and the second communication system’s

symbols co-exist in one transmission scheme and wherein:

the second format is compatible with the second communication system configured to support higher mobility than the first communication system, wherein each symbol in the second communication system has a shorter symbol period than that in the first communication system;

generating at least one non-data section containing information describing an aspect of data in at least one of the first section and the second section; and

combining the first section, the second section and the at least one non-data section to form the frame structure.

8. A method of constructing a frame structure for data transmission, the method comprising:

generating a first section comprising data configured in a first format compatible with a first communication system using symbols;

generating a second section following the first section, the second section comprising data configured in a second format compatible with a second communication system using symbols, wherein the first communication system's symbols and the second communication system's symbols co-exist in one transmission scheme and wherein the second communication system has pilot symbols that are denser than those in the first communication system;

generating at least one non-data section containing information describing an aspect of data in at least one of the first section and the second section; and

combining the first section, the second section and the at least one non-data section to form the frame structure.

Ex. 1001, 8:32–54, 9:6–25.

F. Asserted Challenges to Patentability and Asserted Prior Art

Petitioner asserts the following challenges to the patentability of claims 1–4 and 6–8:

Claim(s) Challenged	35 U.S.C. § ¹	Reference(s)/Basis
1–4, 6, 7	103	Talukdar, ² Li ³
8	103	Talukdar, Nystrom ⁴

II. ANALYSIS

A. Discretion under 35 U.S.C. § 314(a) – in rem proceeding

Patent Owner contends that the Board should exercise its discretion under 35 U.S.C. § 314(a) to deny institution on the basis that Petitioner improperly filed the Petition as an in rem proceeding. Prelim. Resp. 4–7.

Under § 314(a), the Director has discretion to deny institution of an *inter partes* review, and that discretion has been delegated to the Board. *See* 37 C.F.R. § 42.4(a) (“The Board institutes the trial on behalf of the Director.”); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2140 (2016) (“[T]he agency’s decision to deny a petition is a matter committed to the Patent Office’s discretion.”); *SAS Inst. v. Iancu*, 138 S. Ct. 1348, 1356 (2018) (“[Section] 314(a) invests the Director with discretion on the question whether to institute review” (emphasis omitted)); *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (“[T]he PTO is permitted, but never compelled, to institute an IPR proceeding.”).

¹ Petitioner challenges patentability under pre-AIA 35 U.S.C. § 103. Pet. 23, 28, 30.

² Ex. 1012, US 2009/0067377 A1, published Mar. 12, 2009 (“Talukdar”).

³ Ex. 1001, US 2007/0155387 A1, published July 5, 2007 (“Li”).

⁴ Ex. 1017, US 2007/0104174 A1, published May 10, 2007 (“Nystrom”).

According to Patent Owner, Petitioner “has not filed this Petition as an *inter partes* petition, but instead as an *in rem* proceeding against the [’096 P]atent itself.” *Id.* at 5 (citing Pet. 1 at caption). Patent Owner asserts the Petition “violates the explicit requirement of 35 U.S.C. § 311(a), authorizing a ‘person who is not the owner of a patent’ to ‘file with the Office a petition to institute an *inter partes* review of the patent.’” *Id.* (emphasis in original); *see* Sur-reply 1 (similar argument). Patent Owner further argues that Petitioner has not met all the necessary prerequisites for institution. *See* Prelim. Resp. 5 (citing 35 U.S.C. § 311(a)); Sur-reply 1 (similar argument).

Patent Owner contends that Petitioner explicitly introduces the issue of patent ownership before the Board by filing its Petition effectively as in rem, i.e., against the patent itself, instead of against Patent Owner UNM Rainforest Innovations (“UNM”). *See* Prelim. Resp. 6. According to Patent Owner, “[a]lthough [Petitioner] has stated that they do not want the PTAB to address patent ownership, by proceeding only against the patent itself, [Petitioner] has squarely brought the issue of patent ownership into this IPR, thereby requiring the PTAB to rule on this issue.” *Id.*; *see* Sur-reply 2 (similar argument). Patent Owner contends that the Board is not authorized to adjudicate patent ownership, and does not have jurisdiction because only grounds related to 35 U.S.C. §§ 102 or 103 can be raised in an *inter partes* review. *See* Prelim. Resp. 6–7 (quoting 35 U.S.C. § 311(b)); Sur-reply 2–3 (similar argument, quoting 35 U.S.C. § 311(b)).

Petitioner asserts that its Petition does not seek in rem review because the cover page clearly states that it is a petition for “*INTER PARTES* REVIEW.” *See* Reply to Prelim. Resp. 3 (citing Pet. 1 at caption). Petitioner further points out that the header of the pages in the Petition is

titled as “Petition for *Inter Partes* Review of ’096 Patent (IPR2021-00734).” *See id.* at 4. Petitioner points out that the Petition identifies UNM as the current assignee of record for the ’096 Patent and complied with the obligation to serve the correspondence address of record for the ’096 Patent. *See id.* (citing Pet. 2, 75). Petitioner asserts that UNM has been an active participant in this proceeding. *See id.* Petitioner argues that, although ownership of the patent is in dispute, nothing in the Petition sought to have to Board rule on patent ownership, and, “as stated in its reply in support of its motion for joinder, [Patent Owner] ‘does not seek to have the Board decide the issue of ownership of the ’096 patent.’” *Id.* at 4 (quoting Reply to Opp. 1).

We do not interpret the Petition’s caption page listing the ’096 Patent to be a request for an in rem proceeding. The Petition explicitly requests *inter partes* review of the ’096 Patent. *See* Pet. 1. We also are persuaded by Petitioner’s numerous affirmative statements that Petitioner does not seek to have the Board decide the issue of patent ownership. *See* Reply to Opp. 1; Reply to Prelim. Resp. 4; Paper 11, 2. In addition, at least one of Petitioner’s subsequent filings in this proceeding has included a caption listing Patent Owner. *See* Reply to Prelim. Resp. Accordingly, we decline to exercise discretion to deny institution on the basis asserted by Patent Owner.

We do not consider Patent Owner’s non-responsive and belated Sur-reply arguments requesting the Board to decide the patent ownership issue. In the Sur-reply, Patent Owner argues for the first time that proper compliance with the provisions of 35 U.S.C. §§ 312(a)(5), 313–316 requires

a determination of who is the patent owner.⁵ *See* Sur-reply 1–2. Patent Owner contends that Petitioner called this condition precedent into question by filing the Petition as an in rem petition against the patent itself and confirmed its position by serving the Petition on ITRI, as required by 35 U.S.C. § 312(a)(5). *See id.* at 2. In particular, Patent Owner presents for the first time the following arguments: (1) the patent ownership “issue must be resolved before this IPR can proceed under Title 35;” (2) “[i]f the Board decides to proceed with this IPR, the Board must determine who the true patent owner is *before* proceeding;” and (3) “[t]his panel can decide patent ownership and confirm UNM’s rightful ownership based on USPTO Assignment Records.” *Id.* (emphasis in original).

We also do not consider Patent Owner’s motion to stay presented in the Sur-reply because it was not authorized. *See* 37 C.F.R. § 42.20(b); Patent Trial and Appeal Board Consolidated Trial Practice Guide November 2019 (“CTPG”), 37 (“Generally a motion will not be entered without prior Board authorization.”). Patent Owner states: “[i]n this Sur-Reply, UNM thus moves to stay pending the State Court’s decision on patent ownership.” Sur-Reply 3. According to Patent Owner, “if the Board chooses not to determine ownership, this proceeding should be stayed until either a final determination of patent ownership is reached, or [Petitioner] stipulates that UNM is indeed the patent owner.” *Id.* at 3; *see id.* at 4 (similar argument).

For the foregoing reasons, we decline to exercise discretion to deny institution on the basis that the Petition is an improper request for an in rem

⁵ UNM Rainforest Innovations, nonetheless, makes its appearance as Patent Owner. Paper 5, 2.

proceeding, and also decline to consider Patent Owner's non-responsive and belated Sur-reply arguments and unauthorized motion to stay.

B. Discretion under 35 U.S.C. § 314(a) - parallel District Court proceeding

Patent Owner argues that we should exercise our discretion and deny institution based on the parallel proceeding in *UNM Rainforest Innovations v. ZyXEL Communications Corporation*, No. 6:20-cv-00522 (W.D. Tex.) (“parallel ZyXEL District Court proceeding”). See Prelim. Resp. 4–5, 7–13; Sur-reply 1.

In *NHK Spring Co. v. Intri-Plex Technologies, Inc.*, the Board denied institution relying in part on § 314(a) because the parallel district court proceeding was scheduled to finish before the Board reached a final decision. IPR2018-00752, Paper 8 (PTAB Sept. 12, 2018) (precedential). Following *NHK*, the Board articulated the following factors for consideration when determining whether to exercise discretion to deny institution in view of a parallel proceeding:

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court's trial date to the Board's projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board's exercise of discretion, including the merits.

Apple Inc. v. Fintiv, Inc., IPR2020-00019, Paper 11 at 5–6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”). “These factors relate to whether

efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel proceeding.” *Id.* at 6. In evaluating these factors, we take “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Id.* (citing CTPG 58). We address each of these factors in turn below.

The instant Petition is a “me-too” petition with respect to the Qualcomm IPR. Petitioner asserts that the Petition is substantively identical to Qualcomm’s petition and relies on substantially the same supporting evidence. *See* Mot. 2, 6–7. Patent Owner does not dispute Petitioner’s assertion. *See generally* Opp. We have reviewed the Petition and it appears to be identical to the petition in the Qualcomm IPR with the exception of the mandatory notice information and arguments regarding discretionary denial. *Compare* Qualcomm IPR Paper 1, 10–67, *with* Pet. 12–69.

The issue of whether to exercise our discretion to deny institution of *inter partes* review based on the unpatentability challenges raised in this Petition was already addressed and decided in the Qualcomm IPR. *See* Qualcomm IPR Dec. 7–19. Patent Owner presented arguments in its preliminary response and sur-reply of that proceeding requesting the Board to exercise discretion to deny the petition under § 314(a) and *Fintiv*. *See* Qualcomm IPR Papers 10, 12. We evaluated all of Patent Owner’s arguments, disagreed that it was appropriate to exercise our discretion to deny institution, and instituted *inter partes* review in the Qualcomm IPR. *See* Qualcomm IPR Dec. 7–19.

In the Qualcomm IPR, we determined that the first and second *Fintiv* factors weighed against discretionary denial based on the stay of the proceeding in *UNM Rainforest Innovations v. Dell Technologies, Inc.*,

No. 6:20-cv-00468-ADA (W.D. Tex.) (“Dell District Court proceeding”).
See Qualcomm IPR Dec. 9–10. As to the third *Fintiv* factor, we determined this factor weighed slightly in favor of discretionary denial based on determining that the investment of time and effort to date by the parties appeared to outweigh the anticipated remaining investment of time and effort to bring the Dell District Court proceeding to trial, should it resume. *See id.* at 10–12.

Regarding the fourth *Fintiv* factor, we determined that Dell’s proposed stipulation mitigated to some degree the concerns of duplicative efforts and potentially conflicting decisions, but did not fully allay such concerns, and therefore weighed slightly against discretionary denial. *See* Qualcomm IPR Dec. 12–14. As to the fifth *Fintiv* factor, we determined the considerations of this factor weighed slightly in favor of discretionary denial based on overlap between the real parties in-interest named in the Qualcomm IPR and the defendants in the Dell District Court proceeding. *See id.* at 14–15.

Regarding the sixth *Fintiv* factor, we determined the merits of petitioner’s patentability challenges appeared sufficient to show a reasonable likelihood of prevailing with respect to at least one asserted ground, and, therefore, was neutral. *See* Qualcomm IPR Dec. 15–16. We also determined that Patent Owner’s unsupported contention that Petitioner did not name all real parties in-interest did not weigh in favor of discretionary denial. *See id.* at 16–17.

We applied a holistic assessment of the *Fintiv* factors in the Qualcomm IPR and declined to exercise our discretion to deny institution under 35 U.S.C. § 314(a). *See* Qualcomm IPR Dec. 18–19. As a result, as

explained above, the issue of whether to exercise our discretion to deny institution of *inter partes* review based on the grounds of unpatentability set forth in this Petition was decided already in our full analysis of the *Fintiv* factors in the Decision on Institution in the Qualcomm IPR.

The issue to be decided now is whether to join Petitioner as a party to the ongoing *inter partes* review—not, for example, whether to conduct a completely separate *inter partes* review involving Petitioner. We have considered all of the parties’ arguments regarding discretionary denial in this proceeding and see no reason to reach a different conclusion than the conclusion reached in the Decision on Institution in the Qualcomm IPR. *See* Pet. 7–12; Prelim. Resp. 4–5, 7–13; Reply 1–3; Sur-reply 1.

Many of Patent Owner’s arguments regarding discretionary denial here are substantially the same as those addressed in the Decision on Institution in the Qualcomm IPR. *Compare* Prelim. Resp. 7–12, *and* Sur-reply 1, *with* Qualcomm IPR Paper 8, 3–13, *and* Paper 12, 1–4. One difference is that Patent Owner’s arguments here advocating discretionary denial are based on the parallel ZyXEL District Court proceeding, not the Dell District Court proceeding, both of which have been stayed for the same reasons. As in the Qualcomm IPR, Petitioner stipulates that it will not pursue invalidity of the challenged claims on the same grounds or same references at issue in the Petition in the parallel ZyXEL District Court proceeding if *inter partes* review is instituted. *See* Pet. 10–11. Another difference is that Patent Owner here does not raise the same issues that were raised in the Qualcomm IPR with respect to the fifth and sixth *Fintiv* factors, namely, that petitioner and defendant are real parties in-interest, and that petitioner did not disclose all real parties in-interest. *Compare* Qualcomm

IPR Paper 8, 9–11, *with* Prelim. Resp. 9–11. A final and notable difference is that Patent Owner here, but not in the Qualcomm IPR, raises the “in rem” proceeding argument as a circumstance to be considered as part of the sixth *Fintiv* factor. *Compare* Qualcomm IPR Paper 8, 9–11, *with* Prelim. Resp. 10–11.

In this proceeding, with respect to the sixth *Fintiv* factor, Patent Owner repeats its arguments that the Petition was filed as an in rem proceeding and asserts that this circumstance favors denying institution. *Compare* Prelim. Resp. 10–11, *with id.* at 5–6. As explained above in Section II.A., we do not interpret the Petition’s caption page listing the ’096 Patent to be a request for an in rem proceeding, and we are persuaded by Petitioner’s numerous affirmative statements that Petitioner does not seek to have the Board decide the issue of patent ownership. Therefore, we do not consider Patent Owner’s asserted circumstance to weigh in favor of exercising discretion to deny institution.

We have considered the circumstances and facts before us in view of the *Fintiv* factors. Because our analysis is fact-driven and we take a holistic view of the factors, no single factor is determinative of whether we exercise discretion to deny institution under § 314(a). Based on the record before us, the considerations underlying the *Fintiv* factors when viewed holistically lead us to determine that the efficiency and integrity of the system are best served by not exercising discretion to deny institution of *inter partes* review.

C. Institution of Inter Partes Review

Petitioner asserts that its challenge is substantively identical to challenges raised in the Qualcomm IPR. *See* Pet. 7 (quoting *Celltrion, Inc. v. Genetech, Inc.*, IPR2018-01019, Paper 11 at 7, 11–13 (PTAB Oct. 30,

2018)). We agree based on our independent review of the Petition, the petition filed in the Qualcomm IPR, and the evidence relied on in both petitions. *Compare* Pet. 12–69, *and* Ex. 1002, *with* Qualcomm IPR Paper 1, 10–67, *and* Ex. 1002.

We instituted *inter partes* review of claims 1–4 and 6–8 of the '096 Patent on July 19, 2021, based on the petition filed in the Qualcomm IPR. Qualcomm IPR Dec. For the same reasons discussed in the Decision on Institution in the Qualcomm IPR, we find Petitioner has demonstrated a reasonable likelihood of showing at least one claim of the '096 patent is unpatentable. *See id.* Accordingly, we find the Petition warrants institution of *inter partes* review of all challenged claims on all grounds raised.

D. Motion for Joinder

Joinder in *inter partes* reviews is governed by 35 U.S.C. § 315(c), which states:

If the Director institutes an inter partes review, the Director, in his or her discretion, may join as a party to that inter partes review any person who properly files a petition under section 311 that the Director, after receiving a preliminary response under section 313 or the expiration of the time for filing such a response, determines warrants the institution of an inter partes review under section 314.

Procedurally, a motion for joinder must be filed “no later than one month after the institution date of any *inter partes* review for which joinder is requested.” 37 C.F.R. § 42.122(b) (2019). Petitioner filed its Motion for Joinder on March 29, 2021, before the July 19, 2021, Decision on Institution in the Qualcomm IPR that Petitioner seeks to join. Mot. 11; Qualcomm IPR Dec. Patent Owner contends that the Motion for Joinder should be denied

because it was nearly three months premature. *See* Opp. 5. We agree with Petitioner that the Motion for Joinder is timely because it was filed no later than one month after the institution date of the Qualcomm IPR, which is the only timing requirement for a motion for joinder. *See* Reply to Opp. 4 (quoting 37 C.F.R. § 42.122(b); *Central Security Group – Nationwide, Inc. v. Ubiquitous Connectivity, LP*, IPR2019-01609, Paper 11 at 8–9 (PTAB Feb. 26, 2020); citing *Dell Inc. v. Neodron Ltd.*, IPR2020-00731, Paper 9 at 5 (PTAB July 31, 2020); *see also* Mot. 5 (similar argument)).

To ensure the just, speedy, and inexpensive resolution of every proceeding, a motion for joinder should: (1) set forth reasons why joinder is appropriate; (2) identify any new grounds of unpatentability asserted in the petition; (3) explain what impact (if any) joinder would have on the trial schedule for the existing review; and (4) address specifically how briefing and discovery may be simplified. *See Kyocera Corp. v. SoftView LLC*, IPR2013-00004, Paper 15 at 4 (PTAB Apr. 24, 2013); CTPG 76.

Petitioner argues joinder is appropriate in this proceeding because the challenges to the claims of the '096 Patent raised in the Petition and Qualcomm's Petition can be determined in a single proceeding, and therefore, will be more efficient and less wasteful. *See* Mot. 5–6; *see also id.* at 2 (similar argument). Petitioner contends that because the parties will be presenting, and the Board will be determining, the same issues in both IPRs, joinder is the most efficient and economical manner to proceed. *See id.* at 6 (citations omitted). In support of its arguments, Petitioner asserts there are no substantive differences between the Petition and Qualcomm's Petition and the Petition relies on substantially the same supporting evidence as the evidence relied upon in the Qualcomm Petition. *See id.* at 5–6; *see*

also id. at 1–2 (similar arguments). Petitioner further asserts that joining Petitioner as a party to the Qualcomm IPR would not cause UNM to bear any additional burden because UNM must respond to the common challenges identified in the Petition and Qualcomm’s Petition regardless of joinder, and will only need to respond to one principal set of papers. *See id.* at 7, 10; *see also id.* at 2 (similar argument). Petitioner further asserts that because the Petition includes the identical grounds presented in the Qualcomm Petition, there would be no additional burden for the Board, Qualcomm, or UNM if Petitioner is joined. *See id.* at 2.

Petitioner asserts that the Petition does not raise any new grounds of unpatentability because the Petition challenges the claims of the ’096 Patent on identical grounds to those raised in the Qualcomm Petition. *See* Mot. 7 (citing IPR2021-00375, Paper 2); *see also id.* at 1–2 (similar arguments). Petitioner contends that joinder will not impose any additional burden on the Board nor add additional complexity to the case. *See id.* at 7 (citation omitted). Patent Owner opposes Petitioner’s motion and counters that joinder will introduce the substantial new issue of UNM’s ownership rights of the ’096 Patent into the Qualcomm IPR because Petitioner filed its Petition effectively as in rem, i.e., against the patent itself, instead of against Patent Owner UNM. *See* Opp. 1–3. According to Patent Owner, “[u]nder similar circumstances where joinder would introduce new issues to the existing IPR, the Board typically denies motions for joinder.” *See id.* at 3 (quoting *Unified Patents Inc., v. C-Cation Technologies, LLC*, IPR2015-01045, Paper 15 at 7 (PTAB Oct. 7, 2015)). In reply, Petitioner contends that its Petition does not raise any issues for the Board to decide beyond those raised in Qualcomm’s Petition. *See* Reply to Opp. 1. According to

Petitioner, “[i]mportantly, and contrary to the primary argument in the Opposition, [Petitioner]’s Motion does not seek to have the Board decide the issue of ownership of the ’096 patent, and [the] Petition does not raise any additional grounds of unpatentability of the ’096 patent.” *Id.* (emphasis in original). Petitioner further contends that, “in its position as a joined petitioner, [it] does not attempt and will not attempt to introduce the issue of ownership into Qualcomm’s IPR.” *Id.* at 1–2.

For the same reasons as those explained above in Section II.A., we do not interpret the Petition’s caption page listing the ’096 Patent to be a request for an in rem proceeding, and we are persuaded by Petitioner’s numerous affirmative statements that Petitioner does not seek to have the Board decide the issue of patent ownership. Accordingly, we agree that joining Petitioner to the Qualcomm IPR would not introduce any new issues or additional grounds of unpatentability to the Qualcomm IPR.

Petitioner asserts that joinder will not add any procedural complications or delay the progress of resolving the substantive issues pending in the Qualcomm IPR because it will not introduce any new prior art, expert opinions, or grounds of unpatentability into the Qualcomm IPR. *See* Mot. 8. Petitioner contends that its participation would result in no changes to the schedule or otherwise unfairly prejudice UNM. *See id.* According to Petitioner, “[f]or both UNM and Qualcomm, [the] Petition has been filed sufficiently early so that joinder would affect neither the potential schedule of the *inter partes* review, nor the costs associated with a full trial.” *Id.* at 7 (citation omitted); *see id.* at 2 (arguing there will be no impact on trial schedule because the proceeding is in its early stages). Petitioner

contends trial can proceed at the same pace as if Petitioner was not joined. *See id.* at 10 (citation omitted).

Petitioner contends that joinder will simplify briefing and discovery because Petitioner has agreed to consolidated filings and an understudy role. *See* Mot. 8–10. According to Petitioner, “[a]bsent termination of Qualcomm from the proceedings, ZyXEL will participate only in a secondary ‘understudy’ role.” *Id.* at 10. More specifically, Petitioner asserts that, “as long as Qualcomm remains a party to the review, [Petitioner agrees] to (1) coordinate any communications with Qualcomm; (2) not produce its own testifying witnesses; and (3) not file substantive papers (except for those associated with Board-approved motions that do not affect Qualcomm or Qualcomm’s position).” *Id.* at 8–9. Petitioner contends that it will confer with and cooperate with Qualcomm on the consolidated filings, and coordinate with Qualcomm, regarding discovery and witness testimony, but, as long as Qualcomm remains a party to the review, Qualcomm will make all final decisions and will retain responsibility for oral argument (including telephone hearings and appeals). *See id.* at 9. Petitioner further asserts that it will not: (1) seek or receive separate time; (2) separately argue during oral argument, including telephone hearings and appeals; (3) separately file or serve objections or discovery requests; (4) receive separate cross examination or redirect time; or (5) separately cross examine or redirect any witness. *See id.* Petitioner asserts that, by consolidating filings with Qualcomm, UNM will only need to respond to one principal set of papers. *See id.* at 10. Patent Owner opposes Petitioner’s motion and argues that “[d]ue to the overarching ownership issue introduced by [Petitioner], ‘joinder . . . could complicate, rather than simplify briefing and discovery.’”

See Opp. 3 (citing *Unified Patents*, Paper 15 at 7); *see id.* at 4 (similar argument).

For the same reasons as those explained above in Section II.A., we do not interpret the Petition’s caption page listing the ’096 Patent to be a request for an in rem proceeding, and we are persuaded by Petitioner’s numerous affirmative statements that Petitioner does not seek to have the Board decide the issue of patent ownership. Accordingly, we do not agree that joinder would complicate briefing and discovery.

Upon consideration of the parties’ arguments and cited supporting evidence, we are persuaded that Petitioner has met its burden to show that it is appropriate under these circumstances to join Petitioner to the Qualcomm IPR. Petitioner challenges the same claims that are challenged in the Qualcomm IPR on the same grounds using the same prior art and evidence. *See* Mot. 1–2, 5–7; *compare* Pet. 12–69, with Qualcomm IPR Paper 1, 10–67. Petitioner avers it will take an “understudy” role in the Qualcomm IPR and only assume a primary role should Qualcomm cease participation in the Qualcomm IPR. *See* Mot. 2–3, 8–10. Petitioner further asserts that joinder will have no impact on the trial schedule for the Qualcomm IPR and will simplify briefing and discovery. *See* Mot. 2, 5, 8–10. Accordingly, joinder to the Qualcomm IPR would result in the just, speedy, and inexpensive resolution of Petitioner’s challenge. *See* 37 C.F.R. § 42.1(b). Therefore, for the reasons discussed above, we *grant* Petitioner’s Motion for Joinder and join Petitioner to the Qualcomm IPR.

III. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314, an *inter partes* review of claims 1–4 and 6–8 of the '096 Patent is instituted with respect to all grounds raised in the Petition;

FURTHER ORDERED that, pursuant to 35 U.S.C. §314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the '096 Patent shall commence on the entry date of this Order, and notice is hereby given of the institution of a trial;

FURTHER ORDERED that the Motion for Joinder with IPR2021-00375 is *granted*, and Petitioner is joined as a petitioner in IPR2021-00375;

FURTHER ORDERED that Petitioner's role in IPR2021-00375 shall be limited as stated by Petitioner in the Motion for Joinder unless and until Qualcomm ceases to participate in IPR2021-00375;

FURTHER ORDERED that the asserted grounds of unpatentability on which the Board instituted *inter partes* review in IPR2021-00375 are unchanged and remain the only instituted grounds;

FURTHER ORDERED that the Scheduling Order in IPR2021-00375, and any modifications thereto, shall govern the schedule of the joined proceeding;

FURTHER ORDERED that all further filings shall be made in IPR2021-00375;

FURTHER ORDERED that the case caption in IPR2021-00375 shall be changed to reflect joinder of ZyXEL Communications Corporation as a petitioner in accordance with the attached example;

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FURTHER ORDERED that a copy of this Decision shall be entered into the record of IPR2021-00375; and

FURTHER ORDERED that the instant proceeding is terminated under 37 C.F.R. § 42.72.

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

QUALCOMM INCORPORATED and
ZYXEL COMMUNICATIONS CORPORATION,⁶
Petitioner,

v.

UNM RAINFOREST INNOVATIONS,
Patent Owner.

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⁶ ZyXEL Communications Corporation was joined as a petitioner in this proceeding based on a petition and motion for joinder filed in IPR2021-00734, which were granted.