No. 18-

IN THE

Supreme Court of the United States

WI-FI ONE, LLC,

Petitioner,

v.

BROADCOM CORPORATION,

Respondent,

ANDREI IANCU, DIRECTOR, U.S. PATENT AND TRADEMARK OFFICE,

Intervenor.

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

PETITION FOR A WRIT OF CERTIORARI

DOUGLAS A. CAWLEY
MCKOOL SMITH, P.C.
300 Crescent Court, Suite 1500
Dallas, TX 75201
(214) 978-4000

PETER J. AYERS
LAW OFFICES OF
PETER J. AYERS, PLLC
2200 Bowman Avenue
Austin, TX 78703
(512) 771-3070

G. DONALD PUCKETT
Counsel of Record
NELSON BUMGARDNER
ALBRITTON PC
3131 West 7th Street, Suite 300
Fort Worth, TX 76107
(817) 377-9111
donald.puckett@nbafirm.com

Counsel for Petitioner

November 5, 2018

284550

QUESTIONS PRESENTED

The Patent Trial and Appeal Board ("PTAB") is an administrative court that conducts *Inter Partes* Review ("IPR") trials and has statutory authority to cancel previously-allowed patent claims. The PTAB renders decisions through panels of three or more Administrative Patent Judges ("APJs"). Very few PTAB panel decisions have been designated "Precedential," and all non-precedential decisions are non-binding on future cases or other PTAB panels.

Wi-Fi One contends that Broadcom's PTAB petitions below were time-barred by 35 U.S.C. §315(b), and the PTAB's decisions were rendered in violation of Wi-Fi One's procedural rights under the Administrative Procedure Act ("APA"). The PTAB panel decisions below have not been designated "Precedential." The questions presented are:

1. Did the appellate panel below err by disregarding 5 U.S.C. §706 and instead applying the Federal Circuit's "abuse of discretion" standard of review (which the Federal Circuit borrowed from appeals of district court discretionary orders) when it reviewed whether the PTAB panel below violated procedures required by the APA?

2. Did the PTAB panel below violate procedural requirements of the APA by refusing to admit known indemnity agreements into evidence when deciding whether Broadcom's *inter partes* review petitions are time-barred under 35 U.S.C. §315(b)?

RULE 29.6 STATEMENT

Petitioner, who was the Appellant and Patent Owner below, is Wi-Fi One, LLC ("WFO"). WFO is not a publicly traded corporation, and no publicly held company owns 10% or more of the stock of WFO. WFO is 100% owned by Wi-Fi Holdings, LLC. WFO's ultimate parent corporation is Inception Holdings, LLC.

Respondent, who was the Appellee and *inter partes* review petitioner below, is Broadcom Corporation.

Andrei Iancu, in his capacity as the Director of the United States Patent and Trademark Office, intervened as a party in the appeal below.

TABLE OF CONTENTS

QUESTIONS PRESENTED i

RULE 29.6 STATEMENT ii

TABLE OF CONTENTS iii

TABLE OF APPENDICES v

TABLE OF AUTHORITIES vii

PETITION FOR A WRIT OF CERTIORARI 1

OPINIONS AND ORDERS BELOW 1

JURISDICTION 2

STATUTES AT ISSUE 2

STATEMENT OF THE CASE 6

A. Introduction. 6

B. Facts and Procedural History. 12

REASONS FOR GRANTING THE PETITION 22

A. The Patent Trial and Appeal Board and Federal Circuit Each Disregarded Their Fundamental Responsibilities Under the Administrative Procedure Act 22

1. The PTAB Panel Failed to Engage in Reasoned Decision-Making as Required by the APA 22

2. The Federal Circuit Panel Failed to Conduct Meaningful Judicial Review When it Departed from the Standards of Review Mandated by the APA 27

B. The Questions Presented are Important to Constitutional Law, Administrative Law, and Patent Law 33

CONCLUSION..... 38

TABLE OF APPENDICES

APPENDIX A — OPINION OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, DATED APRIL 20, 2018 ..... 1a

APPENDIX B — OPINION OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, DATED APRIL 20, 2018 .... 52a

APPENDIX C — OPINION OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, DATED APRIL 20, 2018 .... 54a

APPENDIX D — OPINION OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, DATED JANUARY 8, 2018 ..... 56a

APPENDIX E — OPINION OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, DATED SEPTEMBER 16, 2016 ..... 94a

APPENDIX F — JUDGMENT OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, DATED SEPTEMBER 16, 2016 ..... 119a

APPENDIX G — JUDGMENT OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, DATED SEPTEMBER 16, 2016 ..... 121a

APPENDIX H — DECISION OF THE UNITED STATES PATENT AND TRADEMARK OFFICE, PATENT TRIAL AND APPEAL BOARD, DATED JUNE 1, 2015 ..... 123a

APPENDIX I — FINAL WRITTEN DECISION OF THE UNITED STATES PATENT AND TRADEMARK OFFICE, PATENT TRIAL AND APPEAL BOARD, DATED MARCH 6, 2015 ..... 133a

APPENDIX J — FINAL WRITTEN DECISION OF THE UNITED STATES PATENT AND TRADEMARK OFFICE, PATENT TRIAL AND APPEAL BOARD, DATED MARCH 6, 2015 ..... 172a

APPENDIX K — FINAL WRITTEN DECISION OF THE UNITED STATES PATENT AND TRADEMARK OFFICE, PATENT TRIAL AND APPEAL BOARD, DATED MARCH 6, 2015 ..... 211a

APPENDIX L — DECISION OF THE UNITED STATES PATENT AND TRADEMARK OFFICE, PATENT TRIAL AND APPEAL BOARD, DATED FEBRUARY 20, 2014 ..... 241a

APPENDIX M — DECISION OF THE UNITED STATES PATENT AND TRADEMARK OFFICE, PATENT TRIAL AND APPEAL BOARD, DATED JANUARY 24, 2014 ..... 247a

APPENDIX N — ORDER DENYING PETITION FOR *EN BANC* REHEARING OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, DATED AUGUST 7, 2018 ..... 267a

TABLE OF AUTHORITIES

Cases:

Achates Reference Publishing, Inc. v. Apple, Inc.,
803 F.3d 652 (Fed. Cir. 2015) 20

Allentown Mack Sales & Service, Inc. v. NLRB,
522 U.S. 359 (1998) 22

Applications in Internet Time, LLC v. RPX Corp.,
897 F.3d 1336 (Fed. Cir. 2018) 11, 25

Aqua Prods. v. Matal,
872 F.3d 1290 (Fed. Cir. 2017, *en banc*) 7

Arbutyn v. Giovanniello,
15 F.3d 1048 (Fed. Cir. 1994) 6, 30

Auer v. Robbins,
519 U.S. 452 (1997) 32

Belden, Inc. v. Berk-Tek LLC,
805 F.3d 1064 (Fed. Cir. 2015) 19

Bowen v. Michigan Acad. Of Family Physicians,
476 U.S. 667 (1986) 27

Briscoe ex rel. Taylor v. Barnhart,
425 F.3d 345 (7th Cir. 2005) 24

Burlington Truck Lines, Inc. v. U.S.,
371 U.S. 156 (1962) 26

Chao v. Gunite,
442 F.3d 550 (7th Cir. 2006) 24

Chen v. Mukasey,
510 F.3d 797 (8th Cir. 2007)..... 7

Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.,
467 U.S. 837 (1984)..... 32

Christopher v. SmithKline Beecham Corp.,
567 U.S. 142 (2012)..... 32

Collins v. NTSB,
351 F.3d 1246 (D.C. Cir. 2003)..... 32

Cross-Sound Ferry Services, Inc. v. Interstate Commerce Com.,
738 F.2d 481 (D.C. Cir. 1984)..... 24

Cuozzo Speed Techs., LLC v. Lee,
136 S.Ct. 2131 (2016)..... 20

Dell Inc. v. Acceleron, LLC,
818 F.3d 1293 (Fed. Cir. 2016)..... 19

Dickinson v. Zurko,
527 U.S. 150 (1999)..... 10-11, 22, 28-30, 32, 35

Eagle Broad. Grp., Ltd. v. FCC,
563 F.3d 543 (D.C. Cir. 2009)..... 37

Eli Lilly & Co. v. Bd. Of Regents,
334 F.3d 1264 (Fed. Cir. 2003)..... 6, 30, 32

Elm 3DS Innovations, LLC v. Lee,
2016 U.S. Dist. LEXIS 168789 (E.D. Va. 2016)... 10

Ericsson, Inc. v. D-Link Sys.,
773 F.3d 1201 (Fed Cir. 2014) 13

Ericsson, Inc. v. Intellectual Ventures I, LLC,
890 F.3d 1336 (Fed. Cir. 2018) 7

First Data Corp. v. Cardsoft, LLC,
IPR 2014-00715, Paper 9, 2014 Pat. App. LEXIS 7458 (PTAB October 17, 2014) 37

Flo Healthcare Solutions, LLC v. Kappos,
697 F.3d 1367 (Fed. Cir. 2012) 36

Garmin International, Inc. v. Cuozzo Speed Technologies,
IPR2012-00001, 2013 Pat. App. LEXIS 2445 (PTAB Mar. 5, 2013) 17-19, 26

General Electric Co. v. Transdata, Inc.,
Case IPR2014-01380, Paper 15 (Nov. 12, 2014) .. 37

General Electric Co. v. Transdata, Inc.,
IPR2014-01380, 2015 Pat. App. LEXIS 3730, Paper 34 (April 15, 2015) 37

Gerritsen v. Shirai,
979 F.2d 1524 (Fed. Cir. 1992) 6, 30-32

Humanoids Grp. v. Rogan,
375 F.3d 301 (4th Cir. 2004) 32

In re Telefonaktiebolaget LM Ericssson,
564 Fed. Appx. 585 (Fed. Cir. 2014) 15

Intel Corp. v. U.S. Int'l Trade Comm'n,
946 F.2d 821 (Fed. Cir. 1991) 25

Judulang v. Holder,
565 U.S. 42 (2011) 24

Lezama-Garcia v. Holder,
666 F.3d 518 (9th Cir. 2011) 32

Madstad Eng'g, Inc. v. U.S. Patent & Trademark Office,
756 F.3d 1366 (Fed. Cir. 2014) 36

Marbury v. Madison,
5 U.S. 137 (1803) 27

Marquez-Martinez v. U.S. AG,
2018 U.S. App. LEXIS 29133 (11th Cir. Oct. 17, 2018) 24

Merck & Cie v. Gnosis S.P.A.,
820 F.3d 432 (Fed. Cir. 2016) 7

Mercy Catholic Med. Ctr. v. Thompson,
380 F.3d 142 (3d Cir. 2004) 37

Michigan v. EPA,
135 S.Ct. 2699 (2015) 10-11, 22-24

Mid Continent Nail Corp. v. U.S.,
846 F.3d 1364 (Fed. Cir. 2017) 32

Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.,
463 U.S. 29 (1983) 22-24, 26

NLRB v. General Stencils, Inc.,
438 F.2d 894 (2d Cir. 1971) 37

Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC,
138 S.Ct. 1365 (2018) 36

Palavra v. INS,
287 F.3d 690 (8th Cir. 2002) 24

Perez v. Mortgage Bankers Ass'n,
135 S.Ct. 1199 (2015) 10-11

Pfizer, Inc. v. Apotex, Inc.,
488 F.3d 1377 (Fed. Cir. 2007) 36

PGS Geophysical AS v. Iancu,
891 F.3d 1354 (Fed. Cir. 2018) 22

Power Integrations, Inc. v. Lee,
797 F.3d 1318 (Fed. Cir. 2015) 35

Redline Detection, LLC v. Star Envirotech, Inc.,
811 F.3d 435 (Fed. Cir. 2015) 6, 30

SAS Inst., Inc. v. Iancu,
138 S.Ct. 1348 (2018) 34

SEC v. Chenery Corp.,
318 U.S. 80 (1943) 35

SEC v. Chenery Corp.,
332 U.S. 194 (1947) 26

Ultratec, Inc. v. CaptionCall, LLC,
872 F.3d 1267 (Fed. Cir. 2017) 6-8, 30

U.S. v. Morton Salt Co.,
338 U.S. 632 (1950)..... 33

Universal Camera Corp. v. NLRB,
340 U.S. 474 (1951)..... 23, 28, 34

U.S. v. Nourse,
34 U.S. 8 (1835)..... 27

Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.,
435 U.S. 519 (1978)..... 10

Westar Energy, Inc. v. FERC,
473 F.3d 1239 (D.C. Cir. 2007)..... 37

Wi-Fi One, LLC. v. Broadcom, Corp,
878 F.3d 1364 (Fed. Cir. 2018, *en banc*) 2, 20, 26

Wong Yang Sung v. McGrath,
339 U.S. 33 (1950)..... 23

Worlds, Inc. v. Bungie, Inc.,
903 F.3d 1237 (Fed. Cir. 2018)..... 25

Zheng v. Gonzales,
415 F.3d 955 (8th Cir. 2005)..... 24

Zoll Lifecore Corp. v. Philips Elecs. N. Am. Corp.,
IPR 2013-00609, Paper No. 15, 2014 Pat. App. LEXIS 2045, (PTAB Mar. 20, 2014)..... 17

Statutes:

5 U.S.C. §554..... 19

5 U.S.C. §556..... 3, 5, 19

5 U.S.C. §556(d) 19, 23

5 U.S.C. §556(e) 19, 23

5 U.S.C. §557..... 5

5 U.S.C. §701(a) 28, 34

5 U.S.C. §701(b)(1)..... 22

5 U.S.C. §704..... 34

5 U.S.C. §706.....passim

5 U.S.C. §706(2) 7, 34

5 U.S.C. §706(2)(A) 35

5 U.S.C. §706(2)(B) 35

5 U.S.C. §706(2)(C) 35

5 U.S.C. §706(2)(D) 6, 11, 29, 35

5 U.S.C. §706(2)(E) 7, 10, 11, 29, 35

5 U.S.C. §706(2)(F)..... 35

28 U.S.C. §1254(1) 2

28 U.S.C. §2101(c)..... 2

35 U.S.C. §6..... 22

35 U.S.C. §6(a) 31

35 U.S.C. §141..... 10

35 U.S.C. §314(d) 20

35 U.S.C. §315(b) .....passim

35 U.S.C. §316..... 3

35 U.S.C. §316(a) 32

35 U.S.C. §319..... 9-10

Regulations:

37 C.F.R. §1.616..... 30, 31

37 C.F.R. §42.51(b)(2) 17

Rules:

Federal Circuit Rule 36 35

Rule 13(1) of the Rules for the United States Supreme Court 2

Other Authorities:

ATTORNEY GENERAL'S MANUAL ON THE ADMINISTRATIVE PROCEDURE ACT, UNITED STATES DEP'T OF JUSTICE, 9 (1947)..... 23

Jack M. Beermann and Gary Lawson, *Reprocessing* Vermont Yankee, 75 GEO. WASH. L. REV. 856 (2007)..... 23

Christopher A. Cotropia, *"Arising Under" Jurisdiction and Uniformity in Patent Law*, 9 MICH. TELECOMM. & TECH. L. REV. 253 (2003) 36

Dennis Crouch, *Wrongly Affirmed Without Opinion*, 52 WAKE FOREST L. REV. 561 (2017) 35

Matthew D. McCubbins, Roger Noll & Barry R. Weingast, *The Political Origins of the Administrative Procedure Act*, 15 J.L. ECON. & ORG. 180 (1999) 34

Office Patent Trial Guide, 77 Fed. Reg. 48756..... 25

PTAB Alphabetical Listing of Precedential Decisions, https://www.uspto.gov/patents-application-process/appealing-patent-decisions/decisions-and-opinions/precedential (last visited Nov. 1, 2018)... 9

PTAB Standard Operating Procedure 2 (Rev. 10), https://www.uspto.gov/sites/default/files/documents/SOP2%20R10%20FINAL.pdf (last visited Nov. 1, 2018) 9

Jason Rantanen, *The Landscape of Modern Patent Appeals*, 67 AM. U. L. REV. 985 (2018) 35

George B. Shepherd, *Fierce Compromise: The Administrative Procedure Act Emerges from New Deal Politics*, 90 NW. U. L. REV. 1557..... 34

Michael Xun Liu, *Patent Policy Through Administrative Adjudication*, 70 BAYLOR L. REV. 43 (2018) 37

PETITION FOR A WRIT OF CERTIORARI

Petitioner Wi-Fi One, LLC ("WFO") respectfully petitions for a writ of certiorari to review the judgments below of the United States Court of Appeals for the Federal Circuit.

WFO files this single petition requesting review of the Federal Circuit's judgments in three separately docketed appeals: Nos. 2015-1944, 2015-1945, and 2015-1946. WFO petitions for review on issues that are identical across the three appeals, and that were decided on a consolidated basis by the Federal Circuit.

Throughout this Petition, WFO will cite to the Joint Appendix filed in the -1944 appeal as "A____." WFO will cite to the Petition Appendix filed herewith as "PA____." Citations to party briefs filed below refer to those filed in the -1944 appeal.

OPINIONS AND ORDERS BELOW

The PTAB panel decision denying WFO's requested discovery related to 35 U.S.C. §315(b), and the PTAB's denial of rehearing of that decision, are unreported. (PA247-266; PA241-246). The PTAB panel final decisions holding that Broadcom's *inter partes* review petitions are not time-barred under §315(b) and cancelling the challenged patent claims are unreported but available at 2015 Pat.App. LEXIS 1885; 2015 Pat.App. LEXIS 1886; and 2015 Pat.App. LEXIS 1887. (PA133-171; PA172-210; PA211-240) The PTAB panel decision denying WFO's request for reconsideration of the final written decisions is unreported. (PA123-132)

The first set of Federal Circuit panel decisions holding that WFO's appellate arguments related to 35 U.S.C. §315(b) were precluded from judicial review are reported at 837 F.3d 1329 (Fed. Cir. 2016) and 668 Fed. Appx. 893 (Fed. Cir. 2016). (PA94-118; PA119-120; PA121-122) The Federal Circuit's *en banc* decision overruling the panel decisions and holding that §315(b) issues are reviewable is reported at 878 F.3d 1364 (Fed. Cir. 2018). (PA56-93)

The second set of Federal Circuit panel decisions affirming the PTAB decisions below, over a dissent, are reported at 887 F.3d 1329 (Fed. Cir. 2018) and 719 Fed. Appx. 1018 (Fed. Cir 2018). (PA1-51; PA52-53; PA54-55) The Federal Circuit's decision denying WFO's Second Combined Petition for Rehearing *En Banc* and Panel Rehearing is unreported. (PA267-269)

JURISDICTION

This Petition for Writ of Certiorari is filed within 90 days of the denial of WFO's Second Combined Petition for Rehearing *En Banc* and Panel Rehearing by the Federal Circuit on August 7, 2018. (PA267-269) This Court has jurisdiction under 28 U.S.C. §§ 1254(1) and 2101(c) and Rule 13(1) of the Rules for the United States Supreme Court.

STATUTES AT ISSUE

35 U.S.C. §315(b) states:

> (b) Patent Owner's Action.—
>
> An inter partes review may not be instituted if the petition requesting the proceeding is

> filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent. The time limitation set forth in the preceding sentence shall not apply to a request for joinder under subsection (c).

35 U.S.C. §316 states in relevant part:

> a) Regulations.—The Director shall prescribe regulations . . .
>
> (4) establishing and governing inter partes review under this chapter and the relationship of such review to other proceedings under this title;
>
> (5) setting forth standards and procedures for discovery of relevant evidence, including that such discovery shall be limited to— (A) the deposition of witnesses submitting affidavits or declarations; and (B) what is otherwise necessary in the interest of justice . . . .

5 U.S.C. §556 states in relevant part:

> (d) Except as otherwise provided by statute, the proponent of a rule or order has the burden of proof. Any oral or documentary evidence may be received, but the agency as a matter of policy shall provide for the exclusion of irrelevant, immaterial, or unduly repetitious evidence. A sanction may not be imposed or rule or order issued except

> on consideration of the whole record or those parts thereof cited by a party and supported by and in accordance with the reliable, probative, and substantial evidence. . . . A party is entitled to present his case or defense by oral or documentary evidence, to submit rebuttal evidence, and to conduct such cross-examination as may be required for a full and true disclosure of the facts. . . .
>
> (e) . . . When an agency decision rests on official notice of a material fact not appearing in the evidence in the record, a party is entitled, on timely request, to an opportunity to show the contrary.

5 U.S.C. §706 states:

> To the extent necessary to decision and when presented, the reviewing court shall decide all relevant questions of law, interpret constitutional and statutory provisions, and determine the meaning or applicability of the terms of an agency action. The reviewing court shall—
>
> > (1) compel agency action unlawfully withheld or unreasonably delayed; and
> >
> > (2)hold unlawful and set aside agency action, findings, and conclusions found to be—

> (A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;
>
> (B) contrary to constitutional right, power, privilege, or immunity;
>
> (C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right;
>
> (D) without observance of procedure required by law;
>
> (E) unsupported by substantial evidence in a case subject to sections 556 and 557 of this title or otherwise reviewed on the record of an agency hearing provided by statute; or
>
> (F) unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court.

In making the foregoing determinations, the court shall review the whole record or those parts of it cited by a party, and due account shall be taken of the rule of prejudicial error.

STATEMENT OF THE CASE

A. Introduction

When the Federal Circuit reviews Patent Trial and Appeal Board decisions on issues related to the PTAB's "administration of its rules for trial proceedings" it uses an "abuse of discretion" standard[1] of its own creation.[2] This standard of review differs substantially from the standards of review set forth in the Administrative Procedure Act ("APA"), 5 U.S.C. §706. First, the Federal Circuit's standard omits any review for whether the PTAB decision was rendered "without observance of procedure required by law" as required by 5 U.S.C. §706(2)(D). Second, the Federal Circuit's standard applies a "clearly erroneous" standard of review to the PTAB's findings of fact,

---

[1] *See* Panel Opinion at 15. (PA17) *See also*, *Ultratec, Inc. v. CaptionCall, LLC*, 872 F.3d 1267, 1271-72 (Fed. Cir. 2017) ("We review the Board's decision of how it manages its permissive rules of trial proceedings for abuse of discretion. . . . [T]he Board abuses its discretion if the decision: (1) is clearly unreasonable, arbitrary, or fanciful; (2) is based on an erroneous conclusion of law; (3) rests on clearly erroneous findings of fact; or (4) involves a record that contains no evidence on which the Board could rationally base its decision.") (internal citations omitted); *Redline Detection, LLC v. Star Envirotech, Inc.*, 811 F.3d 435, 442 (Fed. Cir. 2015); *Eli Lilly & Co. v. Bd. Of Regents*, 334 F.3d 1264, 1266-67 (Fed. Cir. 2003); *Arbutyn v. Giovanniello*, 15 F.3d 1048, 1050-51 (Fed. Cir. 1994); *Gerritsen v. Shirai*, 979 F.2d 1524, 1527-29 (Fed. Cir. 1992).

[2] The Federal Circuit's four-part articulation of the abuse of discretion standard was borrowed from previous Federal Circuit cases that involved appeals of district court discretionary rulings, such as orders on a motion to quash a subpoena. *See Gerritsen*, 979 F.2d at 1529 (citing district court appeals on discretionary issues as authority for the four-part abuse of discretion standard).

rather than the "substantial evidence" standard of review required by 5 U.S.C. §706(2)(E).[3]

Indeed, Federal Circuit judges and panels have sharply disagreed on the appropriate standard of review to be applied on various issues that arise in PTAB appeals, and the Federal Circuit as a whole has been unable to reach a consensus. *See, e.g., Aqua Prods. v. Matal*, 872 F.3d 1290 (Fed. Cir. 2017, *en banc*) (resulting in five opinions that disagreed over the standard of review); *Merck & Cie v. Gnosis S.P.A.*, 820 F.3d 432 (Fed. Cir. 2016) (*per curium* denial of *en banc* petition with a concurrence and dissent disagreeing over the appropriate standard of review to be applied in reviewing PTAB findings of fact). *Also compare Ericsson, Inc. v. Intellectual Ventures I, LLC*, 890 F.3d 1336, 1338 (Fed. Cir. 2018) ("PTAB decisions are reviewed in accordance with the [APA]. 5 U.S.C. §706(2)") *with Ultratec*, 872 F.3d at 1271-72 (applying a non-APA "abuse of discretion" standard to the PTAB's administration of its own trial rules).

The Federal Circuit panel in this case,[4] (over a dissent) applied an abuse of discretion standard to affirm a PTAB decision that resulted from procedural

[3] For a discussion of the additional scrutiny required by "substantial evidence," as opposed to "clearly erroneous," in the administrative context, *see Chen v. Mukasey*, 510 F.3d 797, 801-02 (8th Cir. 2007).

[4] Unless otherwise noted, references to the Federal Circuit panel decisions below refer to the second set of merits panel decisions. *See* PA1-55.

errors that amount to serious violations of the APA and WFO's constitutional due process rights.[5]

Throughout the IPR trials below, WFO has been in possession of highly-relevant indemnity agreements that will tend to show whether Broadcom's IPR petitions are time-barred by 35 U.S.C. §315(b). But the PTAB panel refused to allow WFO to submit the indemnity agreements as evidence; and the PTAB decided that Broadcom's IPR petitions are not time-barred without having reviewed the indemnity agreements – likely the most important evidence on the §315(b) issue.[6]

The Federal Circuit panel below affirmed the PTAB panel's decision, holding that the PTAB did not abuse its discretion[7] when it refused to accept or consider the indemnity agreements. Even though WFO argued on appeal that the PTAB violated specific procedural requirements of the APA, the Federal Circuit's opinion did not discuss the specific requirements of the APA at all, and the opinion did

---

[5] In its appellate briefing below, WFO emphasized the PTAB panel's violation of the APA without specific emphasis on constitutional due process. This is because one legislative purpose of the APA was to mandate administrative procedures that, if followed, avoid violations of constitutional due process. WFO's focus on the requirements of the APA in this Petition should not minimize the constitutional due process dimension of the questions presented.

[6] *See* discussion at pp. 24-25, *infra*.

[7] The appellate panel below applied a generic version of the Federal Circuit's "abuse of discretion" standard, without stating or discussing the four individual parts of the standard as articulated in *Ultratec* and the related Federal Circuit cases. *See* PA17.

not specifically address WFO's APA and administrative law arguments.[8]

In short, the Federal Circuit panel below sidestepped the APA entirely. From the face of the opinion, one would conclude that the Federal Circuit panel believed the APA has no bearing on this appeal at all.

The Federal Circuit's lax standard of review on issues related to the PTAB's administration of its own trial rules, together with the Federal Circuit's inconsistent enforcement of the procedural requirements of the APA, raise serious constitutional and administrative law issues. For a patent owner whose patent property rights are extinguished by a PTAB panel, the *only* avenue for appeal is to the Federal Circuit. *See* 35 U.S.C. §319. Unlike most federal administrative trial boards, there is no intra-agency appellate board that reviews PTAB panel decisions;[9] and PTAB trial decisions may not be

---

[8] *See* PA14-18. *See also* WFO's Second Combined Petitions for Panel Rehearing and Rehearing *En Banc* at 6, 9-12 (May 21, 2018) (requesting rehearing because the panel neglected to consider WFO's specific APA appellate arguments).

[9] The PTAB has implemented internal operating procedures by which it may designate a panel decision "Precedential," thereby making the decision binding on future PTAB panels. *See* PTAB Standard Operating Procedure 2 (Rev. 10), https://www.uspto.gov/sites/default/files/documents/SOP2%20R10%20FINAL.pdf (last visited Nov. 1, 2018). Since the creation of the PTAB, however, it has designated only 10 PTAB trial panel decisions as Precedential. *See* https://www.uspto.gov/patents-application-process/appealing-patent-decisions/decisions-and-opinions/precedential (last visited Nov. 1, 2018).

appealed to district court.[10] The Federal Circuit stands as the *only* Article III court to review PTAB decisions (aside from rare Supreme Court review).

This Court has previously reversed the Federal Circuit's failure to apply the standards of review set forth in APA §706 in appeals from the PTAB's predecessor, the Board of Patent Appeals and Interferences. *See Dickinson v. Zurko*, 527 U.S. 150 (1999) (reversing the Federal Circuit's "clearly erroneous" standard of review for BPAI findings of fact, and instructing the Federal Circuit to apply the "substantial evidence" standard of review required by 5 U.S.C. §706(2)(E)).

This Court recently reemphasized the statutory primacy of the APA and rejected the notion that courts are free to create administrative common law doctrines that depart from the APA's statutory text. *See Perez v. Mortgage Bankers Ass'n*, 135 S.Ct. 1199, 1207 (2015) (reversing decision of the DC Court of Appeals imposing administrative procedural requirements not set forth in the APA). *See also Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 523-24 (1978).

More, this Court recently reversed a decision of an administrative agency where the agency refused to consider highly relevant evidence in connection with the agency's decision. *See Michigan v. EPA*, 135 S.Ct. 2699, 2707-08 (2015) (vacating and remanding decision of the Environmental Protection Agency

[10] *See* 35 U.S.C. §§ 141, 319. *See also Elm 3DS Innovations, LLC v. Lee*, 2016 U.S. Dist. LEXIS 168789, *11-13 (E.D. Va. 2016).

where the EPA had considered benefits but not costs in connection with its decision).

WFO's arguments for vacating the decisions of the Federal Circuit panel and PTAB panel below flow directly from this Court's prior decisions in *Dickinson*, *Perez*, and *Michigan*.

WFO respectfully requests the Court grant this Petition and hold that the Federal Circuit's "abuse of discretion" standard for reviewing issues related to the PTAB's administration of its own trial rules is erroneous. WFO contends that the appropriate standards of review are set forth in the APA, 5 U.S.C. §706 (specifically including §706(2)(D) and (E)).[11] Additionally, WFO urges the Court to hold that the PTAB panel's procedural handling of the §315(b) time-bar issue in this case was not consistent with the procedural requirements of the APA. WFO contends that the appropriate relief is for the Court to remand the case to the PTAB with appropriate instructions to guide its reconsideration of the §315(b) time-bar issue.[12]

---

[11] WFO preserved this argument below by asserting in each of its appellate briefs that the relevant standards of review are set forth in 5 U.S.C. §706. *See* WFO Op. Brief at 21 (October 26, 2015); WFO Supp. *En Banc* Brief at 54 (Feb. 13, 2017).

[12] In the alternative, WFO requests the Court grant this petition, vacate the appellate panel decision, and summarily remand to the Federal Circuit for reconsideration in light of *Applications in Internet Time, LLC v. RPX Corp.*, 897 F.3d 1336 (Fed. Cir. 2018) (*en banc* reh'g denied, 2018 U.S. App. LEXIS 30297 (Oct. 23, 2018)). *Applications* was decided after the *WFO* panel decisions below; and *Applications* held for the first time that an IPR petitioner bears the ultimate burden of proof on the §315(b) time-bar issue. *See id.* at 1355-56. It cannot be disputed that the PTAB

B. Facts and Procedural History

1. Broadcom filed the *inter partes* review ("IPR") petitions below on September 20, 2013. It is undisputed that Broadcom's IPR petitions below would have been time-barred under 35 U.S.C. §315(b)[13] if one or more non-petitioner District Court Defendants (defined below) is a "real party in interest" to the IPR petitions, or if one or more of them is a "privy" of Broadcom.

WFO's §315(b) time-bar argument is premised on the fact that, on September 24, 2010, WFO[14] filed a patent infringement lawsuit against eight defendants (the "District Court Defendants").[15] Each of these

---

panel below placed this burden of proof on WFO, not Broadcom. *See* PA266; PA246; PA141; PA128. WFO preserved this burden-of-proof issue in its appellate briefs below. *See* WFO Op. Br. at 39 n.6 (Oct. 26, 1015). But the burden of proof issue was not addressed by the Federal Circuit panel below.

[13] "An inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent. . . ."35 U.S.C. §315(b).

[14] More accurately, the infringement action was initiated by then-patent owners Ericsson, Inc and Telefonaktiebolaget LM Ericsson ("Ericsson"). During the pendency of the IPRs below, Ericsson transferred ownership of the patents to new patent owner WFO, and WFO was substituted as the responding party in each of the IPRs. For simplicity, this brief refers consistently to the patent owner as WFO, even for actions undertaken by Ericsson while it was the patent owner. The briefs below and the appellate panel decision below similarly refer to WFO as the relevant patent owner at all times. *See, e.g.,* Panel Opinion at 5 n. 1 (PA5).

[15] *Ericsson, Inc. v. D-Link Corp, et. al.*, Case No. 6-10-cv-00473 in the U.S. District Court for the Eastern District of Texas.

District Court Defendants would have been time-barred from filing an IPR petition on the date Broadcom filed because each of the District Court Defendants had been sued for infringement of the relevant patents[16] more than one year prior.

Although Broadcom supplied the chipsets that served as the basis for alleged infringement by some of the District Court Defendants, Broadcom itself was not named as a defendant in the lawsuit, and Broadcom never became a formal party to the infringement lawsuit at all. Yet, shortly after the district court entered its final judgment finding infringement and assessing damages, and just two weeks after the District Court Defendants filed their notices of appeal, Broadcom filed the IPR petitions below.

As the Broadcom-initiated PTAB litigation began to proceed, the District Court Defendants pursued a Federal Circuit appeal of the district court's judgment on a parallel track. That appeal led to a Federal Circuit affirmance of the district court on all issues except for the amount of damages, and a remand of the case for a new trial solely on damages.[17]

Before the new trial was held, however, the PTAB panel below entered its final written decisions finding first that Broadcom's IPR petitions were not time-barred, and then finding that each of the challenged

---

[16] Each of the patents challenged by Broadcom in its IPR petitions below had been asserted by WFO in the district court litigation. The relevant patents are: U.S. Patent No. 6,772,215; U.S. Patent No. 6,466,568; and U.S. Patent No. 6,424,625.

[17] *See Ericsson, Inc. v. D-Link Sys.*, 773 F.3d 1201 (Fed Cir. 2014).

patent claims is unpatentable. (PA133-171; PA172-210; PA211-240) If the PTAB decisions ultimately are affirmed in this appeal, they will have the effect of cancelling each of the challenged, previously-allowed patent claims, and thus will render the currently-stayed district court litigation moot.

2. WFO's district court litigation counsel[18] has long possessed indemnity agreements between Broadcom and at least two of the District Court Defendants. The indemnity agreements were described at a high level by an order of the district court judge. (A1628-1631). "Broadcom does not deny the existence of the indemnification agreements, nor contest whether they pertained to the accused products." Panel Opinion Dissent at 8. (PA40-41)

WFO obtained these documents through discovery in the district court litigation. But, each of the documents is subject to confidentiality restrictions that arise from the district court's protective order governing the case. The protective order confidentiality obligations currently preclude WFO from submitting the indemnity agreements to the

[18] Attorney Douglas Cawley was WFO's lead litigation counsel in the district court case. Neither Mr. Cawley nor his law firm participated in the PTAB litigation; but Mr. Cawley does represent WFO in the Federal Circuit appeal below and on this Petition. Mr. Cawley has possession of the indemnity agreements in question and is authorized to review them by the district court protective order. WFO's other attorneys in the PTAB and for this appeal are not authorized to review the indemnity agreements under the protective order and have not done so.

PTAB; and Broadcom has refused to consent to disclosure of the indemnity agreements to the PTAB.[19]

The indemnity agreements themselves are not part of the appellate record in this case, even though WFO made *every effort* to have these documents entered into evidence in the IPR record below. WFO first moved the district court to modify its protective order to allow the indemnity agreements to be submitted to the PTAB, but this request was denied by the district court. (A1628-31)

WFO then filed a motion seeking discovery in the IPRs below, requesting that Broadcom produce the indemnity agreements, along with other evidence related to the §315(b) time-bar issue. (A44-54, redacted; A44.1-54.1, unredacted) Broadcom opposed WFO's discovery motion (as discussed below), and the PTAB panel denied WFO any discovery (including production of the indemnity agreements). (A55-64, redacted brief; A65-74, unredacted brief; PA247-266, PTAB order) WFO moved for rehearing of the decision denying discovery, but the PTAB panel denied the rehearing request. (A92-100, motion; A241-246, order) WFO then pursued a writ of mandamus to compel the PTAB to order all or part of the requested discovery, but the Federal Circuit declined to issue mandamus relief. *See In re Telefonaktiebolaget LM Ericssson*, 564 Fed. Appx. 585 (Fed. Cir. 2014).

3. Apart from the indemnity agreements, WFO presented significant evidence to the PTAB that Broadcom has closely coordinated with at least some of the District Court Defendants in opposing WFO's

[19] *See* Panel Opinion Dissent at 16 n.4. (PA49)

allegations of infringement. (A81-90, PTAB opinion summarizing the evidence; PA40-44, panel dissent summarizing the evidence).

For example, Broadcom acknowledged in its IPR petitions that certain Broadcom products, such as the "BCM4313" and "BCM4321" chipsets, serve as the basis for some of the patent infringement allegations made by WFO in the district court litigation. (A45-46) Additionally, it is undisputed that for many years Broadcom has been working in coordination with at least some of the District Court Defendants to assist in their defense of the infringement litigation, and that Broadcom took other affirmative steps to collaterally attack the asserted patents on behalf of its customers, including certain District Court Defendants. (PA44, panel dissent summarizing the evidence)

In opposition, Broadcom submitted evidence in the form of a sworn declaration to support its contention that the IPR petitions below are not time-barred. Broadcom's declaration offered conclusory testimony that Broadcom had not controlled the defense of the district court litigation on behalf of its customer-defendants; but, notably, the declaration was silent as to whether any of the District Court Defendants had directed, controlled or participated in preparation or filing of Broadcom's IPR petitions.[20] (A59, redacted; A69, sealed; A867-69, sealed)

---

[20] The panel majority below inaccurately faults WFO for having failed to argue all the relevant privity factors in its PTAB briefs. (PA13-14, panel opinion at 12-13 and n.3) The dissenting opinion thoroughly rebuts this mischaracterization of WFO's PTAB

In a separate case, a different PTAB panel concluded that an IPR petitioner's submission of a similar, one-directional declaration (*i.e.* one that disclaimed control of district court litigation but neglected to discuss whether time-barred parties were controlling the IPR or coordinating with the IPR petitioner) was itself evidence of a privity relationship. *See, e.g.*, *Zoll Lifecore Corp. v. Philips Elecs. N. Am. Corp.,* IPR 2013-00609, Paper No. 15 at 11-12, 2014 Pat. App. LEXIS 2045 (PTAB Mar. 20, 2014) ("What Petitioner *does not state affirmatively also is telling* – that [neither of Petitioner's attorneys] provided input into the preparation of the IPRs filed by Petitioner") (emphasis added).

4. The PTAB panel below first addressed the §315(b) time-bar issue when it decided WFO's discovery motion. (PA251-266) Despite knowing of the existence of the indemnity agreements, and despite the other evidence submitted by WFO showing a close relationship between Broadcom and time-barred District Court Defendants, the PTAB panel denied WFO's request for discovery in its entirety — even as to the indemnity agreements. (PA266)

WFO had filed its discovery motion pursuant to the PTAB's applicable trial rule regulation, 37 C.F.R. §42.51(b)(2). In deciding the motion, the PTAB panel applied the so-called "*Garmin* factors"[21] that had been

---

briefing. (PA45-47, panel dissent at 12-13 and n.2) A close examination of the PTAB record shows that it was Broadcom, not WFO, that urged the PTAB to consider only a subset of the relevant privity factors. (A59, redacted; A69, sealed; A867-69, sealed)

[21] *See Garmin International, Inc. v. Cuozzo Speed Technologies*, IPR2012-00001, 2013 Pat. App. LEXIS 2445 (PTAB Mar. 5, 2013)

articulated in the very first "Precedential" PTAB panel decision.

The PTAB panel focused its discussion on the first *Garmin* factor, whether WFO had shown "more than a mere possibility" that the requested discovery would lead to relevant evidence. (PA253-266) Despite knowing of the existence of the indemnity agreements, and despite the other evidence showing close coordination between Broadcom and certain District Court Defendants, the PTAB panel held that WFO's "evidence does not amount to more than a 'mere allegation that something useful will be found' to show privity . . . ." (*Id.*, quotation at PA254) Accordingly, the PTAB panel denied WFO's request for discovery in its entirety. (PA266)

WFO continued to assert throughout the IPR trials that the IPR petitions were time-barred under §315(b). *See* Patent Owner Response (A131, A138-150); Request for Rehearing of Final Written Decision (A252-269). Each time the PTAB panel addressed the ultimate §315(b) time-bar issue, however, it merely referred-back to its previous decision denying WFO's request for discovery. *See* PTAB Final Written

---

(available at https://www.uspto.gov/sites/default/files/documents/Garmin%20Intl%20v%20Cuozzo%20Speed%20Techs%20IPR2012-00001_Paper%2026.pdf, last visited Nov. 1, 2018). The *Garmin* factors are whether the party requesting discovery: (1) has shown "more than a mere possibility and mere allegation" that the requested discovery will be useful, (2) is requesting "litigation positions and underlying basis," (3) has the "ability to generate equivalent information by other means," (4) has given "easily understandable instructions" with the discovery requests, and (5) has made "requests not overly burdensome to answer." *See id.* at 6-7.

Decisions (PA140-141; PA179-180; PA219-220); PTAB Decision Denying Request for Rehearing (PA128). The PTAB panel never provided an opinion stating its reasons for finding that Broadcom's IPR petitions are not time-barred by §315(b), apart from citing back to the reasons it had given for denying WFO's discovery motion under the applicable discovery trial regulation and the *Garmin* factors.

In its Request for Rehearing, WFO also asserted that the PTAB panel had failed to comply with the procedural requirements of the APA, presenting the same APA-based arguments that WFO later asserted on appeal below and now argues in this Petition. (A254-255; A266-267) The panel, however, declined to address WFO's APA objections. (PA131-132)

5. On appeal to the Federal Circuit, WFO argued that the PTAB panel violated specific requirements of the APA.[22] WFO argued that the PTAB's refusal to accept and consider the known indemnity agreements was contrary to WFO's procedural rights under 5 U.S.C. §556(d) and §556(e). *See* WFO Op. Br. at 37-38 (Oct. 26, 2015). WFO also argued that the PTAB panel had failed to provide a written opinion stating its reasons for finding that Broadcom's IPR petitions were not time-barred under 35 U.S.C. §315(b). *See id.* at 38-41.

[22] An IPR trial is a "formal adjudication" that requires the PTAB to abide by the APA's procedural requirements for formal adjudications. *See* 5 U.S.C. §§ 554, 556. *See also Dell Inc. v. Acceleron, LLC*, 818 F.3d 1293, 1301 (Fed. Cir. 2016); *Belden, Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1080 (Fed. Cir. 2015).

The Federal Circuit merits panel initially held that it was prevented by 35 U.S.C. §314(d) from judicially reviewing any of WFO's arguments related to §315(b). (PA99-104, citing *Achates Reference Publishing, Inc. v. Apple, Inc.*, 803 F.3d 652, 658 (Fed. Cir. 2015))

The *en banc* Federal Circuit, however, granted WFO's request for rehearing on the reviewability issue, and considered the scope of §314(d)'s preclusion of judicial review for the first time following this Court's decision in *Cuozzo Speed Techs., LLC v. Lee*, 136 S.Ct. 2131 (2016). In a 9-4 decision, the *en banc* court reversed the panel and held that §314(d) does not bar judicial review of issues related to the §315(b) time-bar. *See Wi-Fi One, LLC. v. Broadcom, Corp*, 878 F.3d 1364, 1375 (Fed. Cir. 2018, *en banc*) (overruling *Achates*). (PA56-93) The *en banc* Federal Circuit then remanded this case to the Federal Circuit panel for consideration of WFO's appellate arguments related to the §315(b) time-bar. *See id.* (PA75)

On April 20, 2018, the merits panel issued its 2-1 decision rejecting WFO's arguments related to §315(b).[23] (PA1-51; PA52-53; PA54-55) The majority opinion purported to "address[] the merits of Wi-Fi One's time-bar claim that the en banc court held to be appealable." (PA3). But, the opinion never cited or mentioned the APA at all, did not consider the specific procedural requirements of the APA, and did not

[23] Both judges in the merits panel majority (Judge Bryson and Judge Dyk) dissented from the *en banc* court's decision that §315(b) time-bar issues are judicially reviewable at all. The merits panel dissenting judge (Judge Reyna) authored the majority opinion for the *en banc* court that found judicial review was not precluded by §314(d).

directly address WFO's APA points of error. (PA1-32) Instead, the opinion applied the Federal Circuit's "abuse of discretion" standard for reviewing issues related to the PTAB's management of its own trial rules, and summarily affirmed the PTAB's procedural handling of the §315(b) issue under that standard. (PA17-18)

In a dissenting opinion, Judge Reyna similarly applied an abuse of discretion standard of review, but stated that he would hold that the PTAB panel below abused its discretion. (PA34) Judge Reyna indicated he would vacate the PTAB decisions below and remand "with instruction that the Board permit limited, focused discovery on the §3415(b) privity issue and thereafter determine anew whether Broadcom's petition is time barred in accordance with the correct standard." (*Id.*)

WFO filed a second request for *en banc* rehearing, raising WFO's alleged deficiencies with the merits panel opinion. *See* WFO Second Combined Petitions for Panel Rehearing and Rehearing *En Banc* (May 21, 2018) But WFO's rehearing request was denied. (PA267-269)

REASONS FOR GRANTING THE PETITION

A. The Patent Trial and Appeal Board and Federal Circuit Each Disregarded Their Fundamental Responsibilities Under the Administrative Procedure Act.

1. The PTAB Panel Failed to Engage in Reasoned Decision-Making as Required by the APA.

Under the APA[24], one of the most fundamental requirements is that federal administrative agencies "are required to engage in 'reasoned decisionmaking.'" *Michigan v. EPA*, 135 S.Ct. 2699, 2706 (2016) (quoting *Allentown Mack Sales & Service, Inc. v. NLRB*, 522 U.S. 359, 374 (1998)). *See also Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42-44 (1983).

To fulfill the basic obligation of reasoned decision-making, "'[n]ot only must an agency's decreed results be within the scope of its lawful authority, but *the process by which it reaches its result* must be logical and rational.'" *Michigan*, 135 S.Ct. at 2706 (emphasis added, quoting *Allentown*, 522 U.S. at 374). One primary legislative purpose behind the APA was to

---

[24] The USPTO is an "agency" that is subject to the requirements of the APA. *See Dickinson*, 527 U.S. at 154. *See also* 5 U.S.C. §701(b)(1) (defining "agency"). The PTAB is an administrative trial court within the USPTO. *See* 35 U.S.C. §6. *A* PTAB decision that extinguishes a patent owner's previously-granted patent rights is an "agency action" that is subject to judicial review under the APA. *See PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1361-62 (Fed. Cir. 2018). *See also* 5 U.S.C. §706 (establishing standards of review for "agency action").

establish uniform procedures across the various federal agencies for rulemaking and adjudications that would facilitate reasoned decision-making in administrative law.[25]

From the reasoned decision-making requirement, "[i]t follows that agency action is lawful only if it rests 'on consideration of the relevant factors.'" *See Michigan*, 135 S.Ct. at 2706 (quoting *Motor Vehicle*, 463 U.S. at 43). In formal adjudications, this aspect of reasoned decision-making is facilitated by various procedural requirements of the APA.[26]

---

[25] *See Wong Yang Sung v. McGrath*, 339 U.S. 33, 41 (1950) ("One purpose [of the APA] was to introduce greater uniformity of procedure and standardization of administrative practice among the diverse agencies whose customs had departed widely from each other."). *See also* ATTORNEY GENERAL'S MANUAL ON THE ADMINISTRATIVE PROCEDURE ACT, UNITED STATES DEP'T OF JUSTICE, 9 (1947); Jack M. Beermann and Gary Lawson, *Reprocessing* Vermont Yankee, 75 GEO. WASH. L. REV. 856, 893 (2007) (the procedural requirements of the APA "serve important purposes of agency accountability and reasoned decision making").

[26] For example, an agency must consider the "whole record" – including evidence that weighs against or detracts from the agency's ultimate decision. *See* 5 U.S.C. §556(d) ("A sanction may not be imposed or rule or order issued except upon consideration of the whole record . . . ."). *See also Universal Camera Corp. v. NLRB*, 340 U.S. 474, 488 (1951) (requiring judicial review of the "whole record). In creating the agency's evidentiary record, a party to a formal adjudication is "entitled to present his case or defense by oral or documentary evidence, to submit rebuttal evidence, and to conduct such cross-examination as may be required for a full and true disclosure of the facts." 5 U.S.C. §556(d). More, "[w]hen an agency decision rests on official notice of a material fact not appearing in the evidence in the record, a party is entitled, on timely request, to an opportunity to show the contrary." 5 U.S.C. §556(e).

When an agency undertakes action without consideration of the relevant factors, it is unlawful. In *Michigan*, for example, the Court vacated a decision of the Environmental Protection Agency ("EPA") to regulate power plants where the EPA had considered the benefits of such regulation, but had "refuse[d] to consider cost." *See id.* at 2704. The Court remanded to the EPA with instructions to consider all relevant factors – both benefits and costs – in connection with its decision whether to regulate. *See id.* at 2712.

This Court and the federal appellate courts have similarly vacated agency actions or decisions where the agency neglected to consider relevant factors during its decision-making process.[27]

In this case, there can be no doubt that the known indemnity agreements between Broadcom and certain time-barred District Court Defendants are relevant factors – likely the most important factors – in determining "privity" under 35 U.S.C. §315(b). Indeed, in a slightly different context, the Federal Circuit has held that the existence of an indemnity agreement, standing alone, can be enough to establish a privity relationship between the parties to the

[27] *See, e.g. Judulang v. Holder*, 565 U.S. 42, 52-53 (2011); *Motor Vehicle*, 463 U.S. at 49-54 (1983); *Marquez-Martinez v. U.S. AG*, 2018 U.S. App. LEXIS 29133, *8-10 (11th Cir. Oct. 17, 2018); *Chao v. Gunite*, 442 F.3d 550, 559 (7th Cir. 2006); *Zheng v. Gonzales*, 415 F.3d 955, 960-962 (8th Cir. 2005); *Briscoe ex rel. Taylor v. Barnhart*, 425 F.3d 345, 357 (7th Cir. 2005); *Palavra v. INS*, 287 F.3d 690, 692-94 (8th Cir. 2002); *Cross-Sound Ferry Services, Inc. v. Interstate Commerce Com.*, 738 F.2d 481, 487 (D.C. Cir. 1984).

agreement. *See, e.g. Intel Corp. v. U.S. Int'l Trade Comm'n*, 946 F.2d 821, 839 (Fed. Cir. 1991).

Under §315(b), the applicable legal standard for "privity"[28] is not disputed by the parties to this appeal.[29] In recent cases deciding privity issues under §315(b), the Federal Circuit has emphasized the importance of indemnity agreements when determining whether an IPR petitioner is in privity with a time-barred party. *See, e.g. Worlds, Inc. v. Bungie, Inc.*, 903 F.3d 1237, 1244-47 (Fed. Cir. 2018); *Applications*, 897 F.3d at 1362 (Reyna, concurring).

By refusing to accept or consider the known indemnity agreements, the PTAB panel below failed to engage in reasoned decision-making. Without consideration of the indemnity agreements, the PTAB panel was not able to make a rational determination – one way or the other – as to whether Broadcom was in privity with one or more of the time-barred District Court Defendants, thus triggering the statutory time-

---

[28] As stated in the PTAB's trial practice guide, the §315(b) privity standard is a broad and flexible, multi-factored standard that requires the PTAB to consider the totality of circumstances to determine whether privity, in its myriad forms, exists between the relevant parties. *See* Office Patent Trial Guide, 77 Fed. Reg. 48756, 48759-60. *See also Applications in Internet Time, LLC v. RPX Corp.*, 897 F.3d 1336, 1358-61 (Fed. Cir. 2018); Panel Opinion at 9-12 (PA10-14).

[29] WFO argued below on appeal that the PTAB panel accurately stated the legal standard for "real party in interest" or "privity," but erred in the way it applied the standard. *See* WFO Op. Br. at 31-35 (Oct. 26, 2015). The Federal Circuit panel majority and dissent disagreed as to whether the PTAB panel applied the correct legal standard. *Compare* PA10-14 with PA36-48.

bar (and depriving the PTAB of jurisdiction[30]) under §315(b).

A second core component of reasoned decision-making is that an administrative agency must provide a reasoned explanation for its actions.[31] As previously discussed, the PTAB panel below failed to meet this requirement because it never provided any statement of its reasons for finding that Broadcom's IPR petitions were not time-barred by §315(b), given the evidentiary record before it. Instead, each PTAB panel decision on this issue merely referred back to the PTAB's denial of WFO's discovery motion. *See* PTAB Final Written Decisions (PA140-141; PA179-180; PA219-220); PTAB Decision Denying Request for Rehearing (PA128). But these are distinct issues; and it was error for the PTAB panel to substitute its discovery order (applying its own trial regulation and the *Garmin* interpretation of that regulation) as a statement of its reasons on the ultimate statutory §315(b) determination.[32]

---

[30] In its *en banc* decision below, the Federal Circuit held that the time bar of 35 U.S.C. §315(b) is "not some minor statutory technicality. . . . The timely filing of a petition under §315(b) is a condition precedent to the Director's authority to act. It sets limits on the Director's statutory authority to institute, balancing various public interests." *Wi-Fi One*, 878 F.3d at 1374 (internal quotes and citation omitted). (PA73-74)

[31] *See, e.g., Motor Vehicle.*, 463 U.S. at 43 (citing *Burlington Truck Lines, Inc. v. U.S.*, 371 U.S. 156, 168 (1962) and *SEC v. Chenery Corp.*, 332 U.S. 194, 196 (1947)).

[32] The discovery order itself fails to meet the reasoned decision-making requirement. The order engages in circular reasoning when it holds that WFO may not have discovery of the indemnity agreements because WFO "does not show how IPR filings and other filings were pursuant to indemnity agreements . . . ."

In sum, the PTAB panel decision below was not the product of reasoned decision-making because the PTAB panel failed to consider the relevant factors, and because it failed to provide a reasoned written decision on the §315(b) time-bar issue.

2. The Federal Circuit Panel Failed to Conduct Meaningful Judicial Review When it Departed from the Standards of Review Mandated by the APA.

The Federal Circuit panel below applied an erroneous, overly-deferential standard of review to the PTAB decision below. The resulting judicial review was not meaningful and did not satisfy the Federal Circuit's obligations under the APA.

The strong presumption that administrative actions or decisions will be subject to Article III judicial review is rooted in the constitutional separation of powers and bedrock constitutional cases such as *Marbury v. Madison*, 5 U.S. 137 (1803) and *U.S. v. Nourse* 34 U.S. 8 (1835). *See Bowen v. Michigan Acad. Of Family Physicians*, 476 U.S. 667, 670-73 (1986) (discussing *Marbury* and *Nourse* and the "strong presumption that Congress intends judicial review of a final agency action."). When it passed the APA in 1946, Congress codified this strong

---

(PA261-262) The opinion provides little coherent explanation for its conclusion that WFO had shown no more than a "mere possibility" that the requested evidence would be relevant, given that the indemnity agreements were known to exist, and in light of the other evidence of coordination between Broadcom and certain District Court Defendants.

presumption of Article III judicial review of agency actions. *See* 5 U.S.C. §701(a).

In the APA, Congress also codified the standards of review that Article III courts are expected to use when they conduct the required judicial review of administrative actions. *See* 5 U.S.C. §706 (applying the standards of review to "agency action"). "The APA requires *meaningful review*; and its enactment meant stricter judicial review of agency factfinding than Congress believed some courts had previously conducted." *Dickinson*, 527 U.S. at 162 (emphasis added). *See also Universal Camera*, 340 U.S. 474, 489 (1951) (finding that the APA's legislative history "demonstrates a purpose to *impose on courts a responsibility* which has not always been recognized." (emphasis added)).

Indeed, the APA's legislative history reveals significant Congressional dissatisfaction with the varying standards of review being used by different federal courts in reviewing agency decisions. *See id.* at 480-87 (discussing pre-APA practice and APA legislative history). By codifying the standards of review that courts would apply to decisions appealed from a wide array of federal agencies, "[t]he APA was meant to bring uniformity to a field full of variation and diversity." *Dickinson*, 527 U.S. at 155.

In light of the Congressional purpose favoring uniformity in judicial standards of review, any party or court that seeks to deviate from the uniform judicial review standards of §706 must meet a high burden to show Congressional intent in favor of an exception:

> Recognizing the importance of maintaining a uniform approach to judicial review of administrative action . . . we believe that respondents must show more than a possibility of a [different] standard, and indeed more than even a bare preponderance of evidence in their favor. Existence of the [exception] must be clear. . . . A statutory intent that legislative departure from the norm must be clear suggests a need for similar clarity in respect to grandfathered common-law variations.

Dickinson, 527 U.S. at 154-55.

As previously discussed, the Federal Circuit does not apply the §706 standards of review to a PTAB "decision of how it manages its permissive rules of trial proceedings." *See* discussion at p.6-7, *supra*. Instead, it applies an "abuse of discretion" standard of its own creation that omits any review to ensure that the PTAB complied with "observance of procedure required by law" (as required by §706(2)(D)) and reviews PTAB findings of fact for "clear error" rather than for "substantial evidence" (as required by §706(2)(E)). *See id.* This standard of review was borrowed from previous Federal Circuit cases that involved appeals from district court discretionary orders, not appeals from an agency action under the APA. *See id*. at FN2.

The Federal Circuit, however, has not provided a satisfactory justification for its substantial departure from the APA's uniform standards of review set forth in §706. Indeed, *none* of the Federal Circuit's post-America Invents Act ("AIA") decisions that apply this abuse of discretion standard addresses the scope or

effect of the AIA's statutory grant of rulemaking authority to the United States Patent and Trademark Office ("USPTO") regarding PTAB trial rules, and none of these decisions applies the *Dickinson* framework to determine if there is clear evidence that would support a departure or exception to the §706 standards of review. *See, e.g., Ultratec*, 872 F.3d at 1271-72; *Redline*, 811 F.3d at 442. Instead, these Federal Circuit decisions simply cite as authority pre-AIA and pre-*Dickinson* Federal Circuit cases. *See Ultratec*, 872 F.3d at 1271-72; *Redline*, 811 F.3d at 442. The cited cases applied an abuse of discretion standard to Board of Patent Appeals and Interferences ("BPAI") decisions regarding the management of its trial rules for patent interference trials under a different statutory scheme and a different set of trial regulations. *See, e.g. Eli Lilly*, 334 F.3d at 1266-67 (Fed. Cir. 2003); *Arbutyn,* 15 F.3d at 1050-51 (Fed. Cir. 1994); *Gerritsen,* 979 F.2d at 1527-28 (Fed. Cir. 1992).

This line of Federal Circuit cases appears to have originated with *Gerritsen,* 979 F.2d 1524. In that case, the Federal Circuit "define[d], for the first time, our standard of review for the [BPAI's] decision to impose a sanction and for its choice of sanction under 37 C.F.R. §1.616 against an interference party who allegedly failed to comply with an interference regulation." *See id.* at 1527. The *Gerritsen* court held: "When a decision pursuant to a permissive statute concerns only PTO practice, we review for abuse of discretion." *Id.* at 1527-28.

Essential to the *Gerritsen* decision was the finding that, under then-current 35 U.S.C. §6(a)[33], "Congress … delegated plenary authority over PTO practice including interference proceedings, to the Commissioner." *See id.* at 1527, n.3. Also essential to the *Gerritsen* decision was the finding that the applicable interference trial rule (then-current 37 C.F.R. §1.616), adopted by the USPTO pursuant to its statutory grant of regulatory authority, "gives the examiner-in-chief and the Board discretionary authority to decide whether to impose a sanction and what sanction to impose." *Id.* at 1527. The *Gerritsen* court ultimately held:

> Congress granted the Commissioner broad powers over PTO practice. By imposing an unduly expansive standard of review, which in effect limits that discretion, we would be acting contrary to the statute and congressional intent. This is particularly so here, *where the issue is the application of a sanction in the record facts in an individual case*, not the construction of a regulation allowing sanctions in appropriate cases.

Id. at 1528 (emphasis added).

The "abuse of discretion" standard of review that results from *Gerritsen* is, in operation, even more deferential than standards of agency deference

---

[33] At the time, the statute permitted "the Commissioner of Patents and Trademarks to 'establish regulations, not inconsistent with law, for the conduct of proceedings in the Patent and Trademark Office.'" *See Gerritsen*, 979 F.2d at 1527, n.3 (quoting 35 U.S.C. §6(A) (1988)).

articulated in cases such as *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984) and *Auer v. Robbins*, 519 U.S. 452 (1997). Under *Chevron* deference, for example, an agency is afforded no discretion to its interpretation or application of the statutory procedural requirements of the APA.[34] Also, non-binding agency actions that do not represent the views of the agency as a whole and that do not carry the force of law (such as a non-binding ALJ decision) are not afforded *Auer* deference.[35]

Subsequent Federal Circuit decisions have articulated the *Gerritsen* abuse of discretion standard as loosely-related to *Auer* deference, but these decisions have not considered whether the prerequisites to *Auer* deference are satisfied. *See, e.g. Eli Lilly*, 334 F.3d at 1266. Likewise, no Federal Circuit decision has considered whether *Gerritsen* remains good law after *Dickinson*, 527 U.S. 150. Moreover, even though the AIA extended the USPTO a different and more directed grant of statutory authority to prescribe PTAB trial regulations in 35 U.S.C. §316(a), no post-AIA Federal Circuit case has considered whether *Gerritsen* and its progeny are applicable to the AIA statutory scheme or to the particular PTAB trial regulations actually adopted by the USPTO pursuant to its AIA regulatory authority.

---

[34] *See Mid Continent Nail Corp. v. U.S.*, 846 F.3d 1364, 1372 (Fed. Cir. 2017); *Collins v. NTSB*, 351 F.3d 1246, 1252-1253 (D.C. Cir. 2003).

[35] *Compare Lezama-Garcia v. Holder*, 666 F.3d 518, 532 (9th Cir. 2011) *with Humanoids Grp. v. Rogan*, 375 F.3d 301, 307 (4th Cir. 2004). *See also Christopher v. SmithKline Beecham Corp.*, 567 U.S. 142, 143-44 (2012).

The Federal Circuit's departure from the standards of review specified by §706 of the APA is erroneous. By applying a highly-deferential "abuse of discretion" standard of review to the PTAB's management of its own trial rules, the Federal Circuit abdicates its responsibility to conduct meaningful judicial review of PTAB decisions. This can be seen quite clearly from the Federal Circuit panel decision below, which: (1) failed to cite the procedural requirements of the APA at all, (2) did not consider WFO's specific APA points of error, and (3) affirmed a PTAB panel decision that resulted from serious violations of the APA and a lack of reasoned decision-making. This simply cannot be characterized as meaningful judicial review.

B. The Questions Presented are Important to Constitutional Law, Administrative Law, and Patent Law.

The Administrative Procedure Act is the bedrock of modern administrative law, and the judicial review standards of 5 U.S.C. §706 are an essential component of the APA that preserves the balance of powers between the three branches of government.

The APA "was framed against a backdrop of rapid expansion of the administrative process as a check upon administrators whose zeal might otherwise have carried them to excess not contemplated in legislation creating their offices." *U.S. v. Morton Salt Co.*, 338 U.S. 632, 644 (1950). The political backdrop of the APA was a "fierce political battle over administrative reform" between proponents and opponents of New

Deal administrative programs who believed "the life of the New Deal" itself was at stake.[36]

Despite the high political stakes, the APA was passed in 1946 with broad congressional support because supporters of the New Deal were no longer distrustful of a judiciary they previously had perceived as overzealous in invalidating New Deal programs. Instead, with the APA, the New Deal supporters embraced judicial review as a mechanism for promoting regularity and uniformity across the various federal agencies.[37]

The judicial review provisions of the APA create a careful balance among the three branches of government. It permits Congress to override the default standards of review by statute so long as Congress clearly expresses its intent to do so. *See* 5 U.S.C. § 701(a). *See also SAS Inst., Inc. v. Iancu*, 138 S.Ct. 1348, 1360 (2018). It prevents courts from reviewing non-final agency actions. *See* 5 U.S.C. § 704. It permits reviewing courts to "hold unlawful and set aside" agency actions that do not pass muster under the specified standards of review. *See id*. at §706(2). But, it does not permit a court to substitute its own judgment, policy decisions, or findings of fact for the

---

[36] *See* George B. Shepherd, *Fierce Compromise: The Administrative Procedure Act Emerges from New Deal Politics*, 90 NW. U. L. REV. 1557, 1680 (examining the legislative history of the APA).

[37] *See* Matthew D. McCubbins, Roger Noll & Barry R. Weingast, *The Political Origins of the Administrative Procedure Act*, 15 J.L. ECON. & ORG. 180, 183 (1999). *See also Universal Camera*, 340 U.S. at 480-87.

ones stated by the agency. *See id*.[38] Importantly, it articulates the required standards of review and degree of deference that courts must afford an agency action on a range of issues. *See id*. at §706(2)(A-F).

The judicial review standards mandated by 5 U.S.C. §706 may not be cast aside lightly. *See Dickinson*, 527 U.S. at 154-55. The Federal Circuit-created standard of review for the PTAB's administration of its own trial rules is inconsistent with §706, it abdicates the Federal Circuit's responsibility to conduct meaningful judicial review, and it upsets the careful balance of powers struck by Congress in the APA.

This overly-deferential standard of review is particularly troublesome given that there is no administrative appeal board standing above the PTAB, and no other avenue of appeal for a patent owner whose patents rights have been extinguished by the PTAB. The danger is compounded even further by the frequency with which the Federal Circuit summarily affirms PTAB decisions under Federal Circuit Rule 36, providing no judicial opinion that states the reasons for affirmance on appeal.[39]

Moreover, by neglecting to enforce the procedural requirement of the APA when it is overly-deferential to the PTAB's administration of its own trial rules, the Federal Circuit undermines a primary purpose of the

---

[38] *See also SEC v. Chenery Corp.*, 318 U.S. 80, 87 (1943); *Power Integrations, Inc. v. Lee*, 797 F.3d 1318, 1326 (Fed. Cir. 2015).

[39] *See generally* Jason Rantanen, *The Landscape of Modern Patent Appeals*, 67 AM. U. L. REV. 985 (2018); Dennis Crouch, *Wrongly Affirmed Without Opinion*, 52 WAKE FOREST L. REV. 561 (2017).

APA – to prevent deprivations of due process. The stakes are high for both patent owners and petitioners in PTAB trials, and constitutional due process must be assured. *See Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC*, 138 S.Ct. 1365, 1379 (2018).

Finally, the questions presented in this Petition are of fundamental importance to patent law and to the role that patents play in the United States economy. Indeed, the legislative history of the 1982 Federal Courts Improvement Act demonstrates that Congress saw uniformity and consistency in patent law as vitally important for the promotion of technology and economic advancement, and created the Federal Circuit to achieve that uniformity.[40]

The Federal Circuit's practice of being too deferential to the PTAB's administration of its own trial rules undermines this legislative purpose of achieving uniformity and consistency in patent law. This is particularly true when deference is given to non-precedential PTAB decisions that are not even binding on future PTAB panels. This effectively amounts to a license for the PTAB to use different

[40] *See* S. Rep. No. 97-275, at 1 (1981). *See also Madstad Eng'g, Inc. v. U.S. Patent & Trademark Office*, 756 F.3d 1366, 1371 (Fed. Cir. 2014); *Flo Healthcare Solutions, LLC v. Kappos*, 697 F.3d 1367, 1381 (Fed. Cir. 2012); *Pfizer, Inc. v. Apotex, Inc.*, 488 F.3d 1377, 1380 (Fed. Cir. 2007) (Newman, C.J., dissenting from denial of reh'g *en banc*); Christopher A. Cotropia, *"Arising Under" Jurisdiction and Uniformity in Patent Law*, 9 MICH. TELECOMM. & TECH. L. REV. 253, 259-61 (2003).

procedures to reach opposite results, even in cases that are identical in all relevant ways.[41]

The PTAB, acting through its panels, frequently fails to treat like cases alike. This can be seen by comparing the outcome of the present case with the PTAB's decision in *General Electric Co. v. Transdata, Inc.*, Case IPR2014-01380, Paper 15 (Nov. 12, 2014) and Paper 34 (April 15, 2015) (available at 2015 Pat. App. LEXIS 3730). That case featured identical facts – an IPR petitioner that itself had not been sued for infringement, but several of its customers had been sued more than one-year prior. There, the PTAB permitted discovery of the indemnity agreement, considered it, and found that the IPR petition was time-barred under §315(b). Same facts, different procedures, opposite result.[42]

Every attorney who has litigated in the PTAB trenches for the last few years knows that inconsistency across panels is rampant.[43] This should come as no surprise, since PTAB panel decisions are so rarely designated as precedential, and because

---

[41] Courts frequently find that an agency's failure to treat like cases alike fails the APA's "arbitrary and capricious" standard of review. *See, e.g. Eagle Broad. Grp., Ltd. v. FCC*, 563 F.3d 543, 551 (D.C. Cir. 2009); *Westar Energy, Inc. v. FERC*, 473 F.3d 1239, 1241 (D.C. Cir. 2007); *Mercy Catholic Med. Ctr. v. Thompson*, 380 F.3d 142, 157-58 (3d Cir. 2004); *NLRB v. General Stencils, Inc.*, 438 F.2d 894, 904-05 (2d Cir. 1971).

[42] *See also First Data Corp. v. Cardsoft, LLC*, IPR 2014-00715, Paper 9 at 7-10, 2014 Pat. App. LEXIS 7458, *9-15 (PTAB October 17, 2014) (denying institution on grounds of §315(b) due to indemnity agreement).

[43] *See generally*, Michael Xun Liu, *Patent Policy Through Administrative Adjudication*, 70 BAYLOR L. REV. 43, 61-70 (2018).

there is no USPTO appellate board that hears appeals from PTAB trial decisions.

The Federal Circuit stands as the only hope for achieving any semblance of uniformity and consistency at the PTAB. That is the role Congress gave the Federal Circuit in the AIA statutory scheme, in keeping with the primary legislative purpose that originally led to the creation of the Federal Circuit as a specialized patent appellate court. But the Federal Circuit fails to fulfill its role when it abdicates its responsibility to provide meaningful judicial review, when it applies an overly-deferential standard of review to PTAB decisions, and when it inconsistently enforces the requirements of the APA.

The questions presented by this appeal are important to constitutional law, administrative law, and patent law, and are deserving of this Court's attention.

CONCLUSION

For the foregoing reasons, WFO respectfully urges the Court to grant this Petition for Writ of Certiorari.

Respectfully submitted,

DOUGLAS A. CAWLEY
MCKOOL SMITH, P.C.
300 Crescent Court,
Suite 1500
Dallas, TX 75201
(214) 978-4000

PETER J. AYERS
LAW OFFICES OF
PETER J. AYERS, PLLC
2200 Bowman Avenue
Austin, TX 78703
(512) 771-3070

G. DONALD PUCKETT
Counsel of Record
NELSON BUMGARDNER
ALBRITTON PC
3131 West 7th Street,
Suite 300
Fort Worth, TX 76107
(817) 377-9111
donald.puckett@nbafirm.com

Counsel for Petitioner

November 5, 2018

APPENDIX

APPENDIX A — OPINION OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, DATED APRIL 20, 2018

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

2015-1944

WI-FI ONE, LLC,

Appellant,

v.

BROADCOM CORPORATION,

Appellee,

ANDREI IANCU, UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE,

Intervenor.

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2013-00601.

April 20, 2018, Decided

Appendix A

Before DYK, BRYSON, and REYNA, *Circuit Judges*.

Opinion for the court filed by *Circuit Judge* BRYSON.

Dissenting opinion filed by *Circuit Judge* REYNA.

BRYSON, *Circuit Judge*.

These three consolidated cases return to the panel on remand from the en banc court. That court reviewed, and overturned, the panel's decision that time-bar determinations by the Patent Trial and Appeal Board ("PTAB" or "Board") in inter partes review proceedings are not appealable. *Wi-Fi One, LLC v. Broadcom Corp.*, 878 F.3d 1364 (Fed. Cir. 2018) (en banc).

The three cases are related appeals from decisions of the PTAB. In each case, the Board held various claims of three patents owned by Wi-Fi One, LLC ("Wi-Fi"), to be invalid for anticipation.

This panel initially wrote a precedential opinion in appeal No. 2015-1944, and decided Appeal Nos. 2015-1945 and 2015-1946 by summary affirmance. *See Wi-Fi One, LLC v. Broadcom Corp.*, 837 F.3d 1329 (Fed. Cir. 2016); *Wi-Fi One, LLC v. Broadcom Corp.*, No. 2015-1945, 668 F. App'x 893 (Fed. Cir. 2016); *Wi-Fi One, LLC v. Broadcom Corp.*, No. 2015-1946, 668 F. App'x 893 (Fed. Cir. 2016).

Although the en banc court vacated the panel's judgments in all three cases, the en banc opinion addressed only the appealability of the PTAB's time-bar

determination under 35 U.S.C. § 315(b). The court did not address the remaining portions of the panel's decision in Appeal No. 2015-1944 or the aspects of the summary affirmances in Appeal Nos. 2015-1945 and 2015-1946 that related to the merits of Wi-Fi's appeals.

The panel now reaffirms the portions of its three prior decisions that were left unaffected by the en banc court's decision. Accordingly, in Appeal No. 2015-1944, parts III and IV of the original panel opinion are reinstated and are reproduced in substance as parts III and IV of this opinion. In part II of this opinion, the panel addresses the merits of Wi-Fi's time-bar claim that the en banc court held to be appealable. On that issue, we affirm the decision of the PTAB. In separate orders, we reinstate the summary affirmances of the PTAB's decisions in Appeal Nos. 2015-1945 and 2015-1946. Because the time-bar issue raised in those cases is identical to the time-bar issue raised in Appeal No. 2015-1944, we affirm the PTAB's decision as to the time-bar issue in those cases as well.

I

A

The patent at issue in this case, U.S. Patent No. 6,772,215 ("the '215 patent"), is directed to a method for improving the efficiency by which messages are sent from a receiver to a sender in a telecommunications system to advise the sender that errors have occurred in a particular message.

Appendix A

In the technology described in the patent, data is transmitted in discrete packets known as Protocol Data Units ("PDUs"). The useful data or "payload" in those packets is carried in what are called user data PDUs ("DPDUs"). Each D-PDU contains a sequence number that uniquely identifies that packet. The sequence number allows the receiving computer to determine when it either has received packets out of order or has failed to receive particular packets at all, so that the receiver can correctly combine the packets in the proper order or direct the sender to retransmit particular packets as necessary.

The receiver uses a different type of packet, a status PDU ("S-PDU"), to notify the sender of the D-PDUs it failed to receive. The '215 patent is concerned with organizing the information contained in S-PDUs efficiently so as to minimize the size of the S-PDUs, thus conserving bandwidth.

The patent discloses a number of methods for encoding the sequence numbers of missing packets in S-PDUs. Some of those methods use lists that indicate which packets are missing by displaying the ranges of the sequence numbers of the missing packets. Other methods are based on bitmaps that use binary numbers to report on the status of a fixed number of packets relative to a starting point.

Depending on how many packets fail to be properly delivered and the particular sequence numbers of the errant packets, different methods can be more or less efficient for encoding particular numbers and ranges of

errors. In order to leverage the benefits of the different encoding methods, the patent discloses an S-PDU that can combine multiple message types in an arbitrary order, with "no rule on the number of messages or the type of message that can be included in the S-PDU." '215 patent, col. 7, ll. 55-57. Using that technology, S-PDUs can be constructed with a combination of the encoding types best suited for the particular errors being encoded, so that the S-PDU can be more compact than an S-PDU that uses a single encoding type.

B

In 2010, Wi-Fi's predecessors, Ericsson, Inc., and Telefonaktiebolaget LM Ericsson (collectively, "Ericsson") filed a patent infringement action against D-Link Systems, Inc., and several other defendants in the United States District Court for the Eastern District of Texas. Ericsson alleged infringement of the '215 patent and eight other patents. Following a jury trial, that case resulted in a judgment of infringement as to the '215 patent and two other patents, U.S. Patent Nos. 6,424,625 ("the '625 patent") and 6,566,568 ("the '568 patent"). *See generally Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201 (Fed. Cir. 2014).[1]

In 2013, shortly after judgment was entered in the district court action, Broadcom petitioned for inter partes review of the '215 patent, the '625 patent, and

1. During the proceedings before the PTAB, Ericsson assigned its interest in the '215 patent to Wi-Fi. For simplicity, Wi-Fi will be referred to as the patent owner throughout this opinion.

the '568 patent. Broadcom was the manufacturer of two chips that formed the basis for some of the infringement allegations in the district court case, but Broadcom was not a defendant in that litigation. The inter partes review proceeding at issue in this case (PTAB No. IPR2013-00601) concerned the '215 patent. The '568 patent was at issue in PTAB No. IPR2013-00602, which is the subject of Appeal No. 2015-1945 in this court, and the '625 patent was at issue in PTAB No. IPR2013-00636, which is the subject of Appeal No. 2015-1946 in this court.

At the outset of the PTAB proceedings, Wi-Fi sought to bar Broadcom from obtaining inter partes review of the '215 patent. Wi-Fi contended that some or all of the defendants in the D-Link case were in privity with Broadcom or were real parties in interest in the inter partes review proceeding brought by Broadcom. Because the DLink defendants would be time-barred from seeking inter partes review under 35 U.S.C. § 315(b), Wi-Fi argued that Broadcom's petition should be time-barred as well. The Board rejected that argument, holding that the evidence did not show either that Broadcom was in privity with any of the D-Link defendants or that any D-Link defendant was a real party in interest in the inter partes review proceeding.

The Board then instituted inter partes review of the '215 patent, finding that there was a reasonable likelihood that the challenged claims were anticipated by U.S. Patent No. 6,581,176 to Seo. The Board declined to institute review based on another reference that the Board considered redundant in light of Seo.

Appendix A

Seo teaches improvements to what are known as negative acknowledgement ("NAK") frames. NAK frames are sent by the receiving unit to inform the transmitting unit that frames sent by the transmitting unit were misdelivered. The Seo method uses a single packet to provide information about multiple misdelivered frames, so that "only one NAK control frame for all missed user data frames is transmitted to a transmitting station to require a retransmission of the missed user data when a timer for an NAK is actually expired." Seo, col. 5, ll. 32-35.

Seo describes the structure of the disclosed NAK frames. The frames include a field called "NAK_TYPE" that indicates how the NAK frame represents missing frames. If the NAK_TYPE is set to "00," then the missing frames are encoded as a list, and the frame requests retransmission of all user data frames between the first missing frame and the last, represented by the "FIRST" and "LAST" values. If the NAK_TYPE is set to "01," then the NAK frame transmits information about the missing transmitted frames using a bitmap. In that case, the NAK frame contains the field "NAK_MAP_SEQ" to identify the starting point of the bitmap and the field "NAK_MAP" to transmit the bitmap.

Before the Board, Wi-Fi argued that the NAK_TYPE field disclosed in Seo is not a "type identifier field" and that Seo therefore does not satisfy the type identifier field limitation of the '215 patent. Wi-Fi further argued that, even if Seo discloses that feature, the NAK_TYPE field is not found within a "message field," as required by the claims at issue. The Board rejected those arguments,

found that Seo disclosed all the limitations of the challenged claims of the '215 patent, and therefore held those claims to be unpatentable. The Board also rejected Wi-Fi's argument that claim 15 of the '215 patent required some sort of "length field," which Seo did not disclose. Finally, the Board held that Wi-Fi had not shown that Broadcom was in privity with the D-Link defendants, and therefore Broadcom was not barred from filing a petition for inter partes review.

II

On appeal, Wi-Fi reprises the argument that Broadcom's petition for inter partes review is time-barred. Wi-Fi points out that the D-Link defendants would have been barred from seeking inter partes review of any of the claims at issue in the district court litigation because they did not petition for inter partes review within one year of the date on which they were served with the complaint in the district court action. *See* 35 U.S.C. § 315(b). Under that statute, Wi-Fi argues that Broadcom's petition for inter partes review should have been dismissed because one or more of the D-Link defendants was in privity with Broadcom or was a real party in interest in the inter partes review proceeding.

Section 315(b) provides, in pertinent part: "An inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent." The use of the familiar

common law terms "privy" and "real party in interest" indicate that Congress intended to adopt common law principles to govern the scope of the section 315(b) one-year bar. *See Beck v. Prupis*, 529 U.S. 494, 500-01, 120 S. Ct. 1608, 146 L. Ed. 2d 561 (2000) ("[W]hen Congress uses language with a settled meaning at common law, Congress 'presumably knows and adopts the cluster of ideas that were attached to each borrowed word in the body of learning from which it was taken . . . .'" (quoting *Morissette v. United States*, 342 U.S. 246, 263, 72 S. Ct. 240, 96 L. Ed. 288 (1952))); *see also* 154 Cong. Rec. S9987 (daily ed. Sept. 27, 2008) (statement of Sen. Kyl) ("The concept of privity, of course, is borrowed from the common law of judgments.").

To determine whether a petitioner is in privity with a time-barred district court litigant, the Board conducts a "flexible" analysis that "seeks to determine whether the relationship between the purported 'privy' and the relevant other party is sufficiently close such that both should be bound by the trial outcome and related estoppels." Patent and Trademark Office ("PTO"), Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,759 (Aug. 14, 2012); *see also id.* ("Privity is essentially a shorthand statement that collateral estoppel is to be applied in a given case . . . ." (quoting 154 Cong. Rec. S9987 (daily ed. Sept. 27, 2008) (statement of Sen. Kyl))). To decide whether a party other than the petitioner is the real party in interest, the Board seeks to determine whether some party other than the petitioner is the "party or parties at whose behest the petition has been filed." *Id.* at 48,759. "[A] party that funds and directs and controls

an IPR or [post-grant review] proceeding constitutes a 'real party-in-interest,' even if that party is not a 'privy' of the petitioner." *Id.* at 48,760.

The interpretation of the concepts of privity and real party in interest set forth in the PTO's Office Trial Practice Guide and applied by the Board is consistent with general legal principles. *See Taylor v. Sturgell*, 553 U.S. 880, 893-95, 128 S. Ct. 2161, 171 L. Ed. 2d 155 & n.8 (2008) (Privity is "a way to express the conclusion that nonparty preclusion is appropriate on any ground"; "a nonparty is bound by a judgment if she 'assume[d] control' over the litigation in which that judgment was rendered."); *see also* 18A Charles Alan Wright, Arthur R. Miller & Edward H. Cooper, *Federal Practice and Procedure* § 4451, at 356 (3d ed. 2017) ("[I]t should be enough that the nonparty has the actual measure of control or opportunity to control that might reasonably be expected between two formal coparties.").[2]

A

On the merits of the section 315(b) issue, Wi-Fi first argues that the Board applied the wrong legal standard when it determined that no district court defendant was either a privy of Broadcom or a real party in interest in the inter partes review proceeding. Specifically, Wi-Fi argues that the Board improperly required Wi-Fi to

2. Wi-Fi has not taken issue with the analysis of the requirements to establish privity or real party in interest status under section 315(b) as set forth in the PTO's Office Trial Practice Guide.

satisfy "a hard and absolute requirement that Broadcom must have had the right to control the District Court Litigation in order to find that a District Court Defendant was a real party in interest or privy," and that the Board "made it abundantly clear that it viewed the District Court Defendants' right to control this IPR to be of no importance whatsoever." Under the Board's legal test, according to Wi-Fi, "it is irrelevant if a District Court Defendant has an absolute right to control Broadcom's conduct of the IPR (and even if it has been exercising actual control all along, such that Broadcom is a mere shill)."

Wi-Fi mischaracterizes the Board's decisions regarding section 315(b). Contrary to Wi-Fi's contention, the Board recognized that there are a number of circumstances in which privity might be found, including when the nonparty controlled the district court litigation. The Board's decision to focus on that ground was in response to the specific arguments that Wi-Fi raised on the privity issue.

In its motion for additional discovery, Wi-Fi began by noting that the Supreme Court in *Taylor* set forth six factors to consider in determining whether a nonparty to an action is bound by the judgment in the action. Wi-Fi argued that this case was governed by the factors providing for nonparty preclusion based on a pre-existing "substantive legal relationship" with a party to the action and the opportunity to control the litigation. In particular, Wi-Fi argued that the evidence would show that, by virtue of its indemnity relationship with at least two of

the D-Link defendants, Broadcom "had the opportunity to control and maintains a substantive legal relationship with the D-Link Defendants sufficient to bind Broadcom to the District Court's judgment."

In its decision on Wi-Fi's motion, the Board first observed that privity depends on "whether the relationship between a party and its alleged privy is 'sufficiently close such that both should be bound by the trial outcome and related estoppels.'" The Board further noted that "[d]epending on the circumstances, a number of factors may be relevant to the analysis, including whether the non-party 'exercised or could have exercised control over a party's participation in a proceeding,' and whether the non-party is responsible for funding and directing the proceeding."

Turning to Wi-Fi's argument, the Board stated that "[w]hen a patent holder sues a dealer, seller, or distributer of an accused product, as is the case at hand, indemnity payments and minor participation in a trial are not sufficient to establish privity between the non-party manufacturer of the accused device and the defendant parties." The Board added that the fact that Broadcom filed an amicus curiae brief in the appeal from the district court judgment "shows interest in the outcome," but "does not bind Broadcom to the trial below outcome or show that Broadcom exercised control over that outcome." Nor did Broadcom's litigation activity in another forum or its filing a petition for inter partes review "show control of the Texas Litigation or otherwise show that Broadcom would be bound by that outcome."

In its request for rehearing of the Board's discovery order, Wi-Fi argued that it was error for the Board to require a showing that Broadcom controlled the Texas litigation; according to Wi-Fi, a "community of interest" was sufficient to establish privity. Responding to that argument, the Board noted that the PTO's Office Patent Trial Practice Guide "emphasizes control, which implies that control is an important factor to establish privity."

Finally, in its request for rehearing of the Board's Final Written Decision, Wi-Fi again argued that the Board had erred in "applying a legal standard imposing an inflexible standard requiring that Petitioner must have exercised control over the District Court Defendants in the District Court Litigation." In addition, Wi-Fi argued that the Board had neglected to address the "real-party-in-interest" issue. Wi-Fi contended that under the Board's standard, Broadcom's petition would not be barred "even if there were irrefutable evidence that the District Court Defendants had expressly hired Broadcom to file this IPR petition, and that the District Court Defendants were paying for and controlling every aspect of Broadcom's IPR activity."

In its decision on Wi-Fi's request for rehearing, the Board explained that it had previously focused primarily on Broadcom's "exercise of control, or opportunity to exercise control over the prior District Court lawsuit" because that was the focus of Wi-Fi's argument. The Board went on to say that its earlier decisions "did not characterize the legal standard, for all cases, as being limited strictly to a petitioner's control, or opportunity

to control, a non-party in previous litigation." The Board explained that, in its previous decisions in the case, it had addressed Wi-Fi's theory "that the indemnity agreements imply that the District Court Defendants are real parties in interest in these *inter partes* reviews."

The Board thus made clear that it understood that privity and real-party-in-interest status could be established not only by Broadcom's exercise of control over the district court proceedings, but also by the D-Link defendants' exercise of control over the inter partes review proceeding. In sum, a review of the Board's decisions in this case, in the context of the arguments Wi-Fi made at each stage, show that the Board did not apply a legally erroneous standard in deciding the "real party in interest, or privy" issue.[3]

B

Wi-Fi next contends that the Board improperly denied its requests for discovery of evidence such as the indemnity agreements between Broadcom and two of the D-Link defendants. That evidence, according to Wi-Fi, would have established that Broadcom and those defendants were in privity or that those defendants were real parties in interest in the IPR proceeding.

---

3. The dissent faults the Board for not discussing all of the *Taylor* factors bearing on a finding of privity. But the Board properly focused on the factors that Wi-Fi raised in its argument. While it recognized that a variety of factors can contribute to a finding of privity, it limited its discussion to the arguments made by Wi-Fi.

Discovery in inter partes review proceedings is more limited than in proceedings before district courts or even other proceedings before the PTO. By statute, the Director of the PTO is authorized to prescribe regulations "setting forth standards and procedures for discovery of relevant evidence, including that such discovery shall be limited to—(A) the deposition of witnesses submitting affidavits or declarations; and (B) what is otherwise necessary in the interest of justice." 35 U.S.C. § 316(a)(5). The legislative history of the America Invents Act confirms that "[g]iven the time deadlines imposed on these proceedings," it was intended that the PTO would "be conservative in its grants of discovery." 154 Cong. Rec. S9988-89 (daily ed. Sept. 27, 2008) (remarks of Sen. Kyl).

By regulation, the Board has provided for limited mandatory discovery, as well as a category called "additional discovery." 37 C.F.R. § 42.51. The discovery sought by Wi-Fi did not qualify as mandatory discovery and therefore was allowable, if at all, only as "additional discovery." The Board's rules provide that a party seeking additional discovery "must show that such additional discovery is in the interests of justice." *Id.* § 42.51(b)(2)(i). That standard is more restrictive than the "good cause" standard that applies in post-grant review and covered business method proceedings. Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,761. Additional discovery, the Board has ruled, should be confined to "particular limited situations, such as minor discovery that PTO finds to be routinely useful, or to discovery that is justified by the special circumstances of the case." *Apple Inc. v. Achates Reference Publ'g Inc.*, No. IPR2013-00080, 2013 Pat. App.

LEXIS 9006, 2013 WL 6514049, at *2 (PTAB Apr. 3, 2013) (quoting 154 Cong. Rec. S9988-89 (daily ed. Sept. 27, 2008) (remarks of Sen. Kyl)).

After Broadcom petitioned for inter partes review, Wi-Fi moved for additional discovery under 37 C.F.R. § 42.51(b). In its motion, Wi-Fi argued that the evidence would show that "Broadcom is in privity with at least one D-Link Defendant." Wi-Fi cited evidence that at least two of the defendants had indemnity agreements with Broadcom, that Broadcom had communicated with some of the D-Link defendants during that litigation, and that, more generally, "Broadcom has been working behind the scenes to help defeat Ericsson's infringement claims against its customers." That level of coordination, Wi-Fi contended, "raises serious questions about whether Broadcom is in privity with the defendants and is likewise time barred from filing these petitions by § 315(b)."

Wi-Fi requested a variety of documents, including any indemnity agreements, joint defense agreements, or other agreements relating to cooperation between Broadcom and any of the D-Link defendants. Wi-Fi also sought any correspondence between Broadcom and any of the D-Link defendants relating to (1) the filing of Broadcom's petitions for inter partes review; (2) possible intervention by Broadcom in the D-Link litigation; (3) claim construction or interpretation of any of the patents at issue in that litigation; and (4) the validity or invalidity of any of the patents at issue in that litigation.

Under the Board's procedures, the burden is on the party seeking discovery to show that the requested discovery would be likely to produce favorable evidence. 37 C.F.R. § 42.51(b)(2) ("The moving party must show that such additional discovery is in the interests of justice."); *Apple Inc.*, 2013 Pat. App. LEXIS 9006, 2013 WL 6514049, at *2; *Garmin Int'l, Inc. v. Cuozzo Speed Techs. LLC*, No. IPR2012-00001, 2013 Pat. App. LEXIS 2445, 2013 WL 11311697, at *3 (PTAB Mar. 5, 2013) ("[T]he requester of information should already be in possession of a threshold amount of evidence or reasoning tending to show beyond speculation that something useful will be uncovered. 'Useful' in that context does not mean merely 'relevant' and/or 'admissible.' In [context], 'useful' means favorable in substantive value to a contention of the party moving for discovery.").

The Board decided that Wi-Fi had not met that standard, and therefore denied discovery. The Board's administration of its rules for trial proceedings is reviewed for an abuse of discretion. *Ultratec, Inc. v. CaptionCall, LLC*, 872 F.3d 1267, 1272 (Fed. Cir. 2017); *Redline Detection, LLC v. Star Envirotech, Inc.*, 811 F.3d 435, 442 (Fed. Cir. 2015).

On appeal, Wi-Fi points to the evidence it presented regarding the relationship between Broadcom and the DLink defendants, which included communications with one of the D-Link defendants regarding the district court litigation, an amicus brief filed by Broadcom in the appeal of that case, and Broadcom's use of the report of one of the plaintiff's experts from the district court litigation.

In Wi-Fi's view, that evidence indicates that Broadcom and the D-Link defendants were "closely coordinating their opposition to the '215 patent," which should have been sufficient for the Board to order disclosure of the indemnity agreements and other requested discovery.

The Board began its analysis of the discovery issue by asking whether there existed more than a "mere possibility" or "mere allegation that something useful [to the proceeding] will be found." It then engaged in a detailed analysis of the issue of privity as applied in the context of section 315(b), from which it concluded that "[t]o show privity requires a showing that Broadcom would be bound to the outcome of the Texas Litigation," and that "[t]o be bound, in normal situations, Broadcom must have had control over the Texas Litigation." Under that standard, the Board concluded that "[p]aying for trial expenses pursuant to indemnity normally does not establish privity or control," and that Wi-Fi's "evidence and arguments fail to show that the sought-after discovery would have more than a mere possibility of producing useful privity information."

As noted, that legal standard is consistent with general legal principles, as explained in the PTO's Office Patent Trial Practice Guide, 77 Fed. Reg. at 48759-60. Given that the Board explored the discovery issue in detail and applied the proper legal test for finding privity or real party in interest status under section 315(b), we decline to hold that the Board abused its discretion when it concluded that additional discovery was not warranted in this case.

Finally, Wi-Fi argues that the Board failed to provide an adequate explanation for its ruling on the section 315(b) issue and that its decision on that issue was not supported by substantial evidence. We disagree with both propositions.

In its Final Written Decision, the Board ruled that Wi-Fi had not shown that Broadcom was in privity with the D-Link defendants or that any of the D-Link defendants was a real party in interest in the inter partes review proceeding. In so ruling, the Board explained that Wi-Fi's arguments were no different from the arguments Wi-Fi had made in its motion for additional discovery several months earlier, and that "[t]he argument and evidence are unpersuasive for [the] same reasons explained in our Decision on Patent Owner's Motion for Additional Discovery (Paper 23), which we adopt and incorporate by reference." As described above, that earlier decision dealt at length with the section 315(b) issue, as did the Board's decision in response to Wi-Fi's request for reconsideration of that order. In its subsequent decision in response to Wi-Fi's request for rehearing of the Final Written Decision, the Board further addressed the section 315(b) issue, again writing on that issue at some length. In light of its multiple and detailed discussions of the section 315(b) issue, the Board cannot fairly be accused of not providing an adequate explanation for its decision on that question.

We further hold that the Board's decision was supported by substantial evidence. There was essentially

no evidence before the Board that any of the D-Link defendants was a real party in interest in the inter partes review proceeding. While Wi-Fi has speculated that Broadcom may have been serving the interests of the D-Link defendants when it sought inter partes review, Broadcom clearly has an interest of its own in challenging the '215 patent, based on its manufacture of the assertedly infringing chips. Other than Wi-Fi's conjecture, there is no evidentiary support for Wi-Fi's theory that Broadcom was acting at the behest or on behalf of the D-Link defendants.

On the issue of privity, the Board reasonably concluded that the evidence failed to show that Broadcom had sufficient control over the district court litigation to justify treating Broadcom as a virtual party to that proceeding. In applying the privity requirement of section 315(b), the Board has stated that the inquiry typically requires proof that the party in question had sufficient control over the prior proceeding that it could be bound by the results of that proceeding. *See Aruze Gaming Macau, Ltd. v. MGT Gaming, Inc.*, No. IPR2014-01288, 2015 Pat. App. Filings LEXIS 568, 2015 WL 780607, at *4-8 (PTAB Feb. 20, 2015) (discussing the six *Taylor* factors and emphasizing the "flexible and equitable considerations" involved); *BAE Sys. Info. & Elec. Sys. Integration, Inc. v. Cheetah Omni, LLC*, No. IPR2013-00175, 2013 Pat. App. Filings LEXIS 1553, 2013 WL 5653116, at *2 (PTAB July 23, 2013) (holding that parties are not privies based only on a customer-seller relationship); *Apple Inc.*, 2013 Pat. App. LEXIS 9006, 2013 WL 6514049, at *2-4 (holding that an indemnification provision is not indicative of privity or real-party-in-interest status).

There was no such showing of control in this case. Wi-Fi's evidence showed that Broadcom's interests as to the issue of infringement were generally aligned with those of its customers, and that Broadcom had indemnity agreements with at least two of the D-Link defendants. But the evidence did not show that Broadcom had the right to control that litigation or otherwise participated in that litigation to the extent that it should be bound by the results. Nor did any evidence suggest that the D-Link defendants were the real parties in interest in Broadcom's inter partes review petition.[4] Section 315(b) thus does not bar Broadcom from petitioning for inter partes review of the '215 patent. Based on the full record before the Board, we conclude that substantial evidence supports the Board's decision on the "real party in interest, or privy" issue.

III

Wi-Fi also challenges the Board's determination that Seo anticipates the '215 patent. Wi-Fi makes three separate arguments: (1) that Seo does not disclose a "type identifier field"; (2) that Seo does not disclose a type identifier field within a message field; and (3) that the Board misconstrued the term "type identifier field."

4. Before the Board, Broadcom introduced evidence that it did not control the district court litigation or decisions made in that litigation. Although the document presenting that evidence was designated as confidential, the evidence was properly before the Board for its consideration and is available to us on appeal.

Appendix A

A

Claim 1 of the '215 patent, which is representative, provides as follows:

A method for minimizing feedback responses in an ARQ protocol, comprising the steps of:

> sending a plurality of first data units over a communication link;
>
> receiving said plurality of first data units; and
>
> responsive to the receiving step, constructing a message field for a second data unit, said message field including a type identifier field and at least one of a sequence number field, a length field, and a content field.

Wi-Fi argues that Seo does not disclose a type identifier field because it discloses only a single type of message, and the single type of message contains fields for encoding errors as both lists and bitmaps. Wi-Fi relies on Figure 4 of Seo, shown below:

FIELD	LENGTH (BITS)
SEQ	8
CTL	4
RE_NUM	2
NAK_TYPE	2

Appendix A

FIELD	LENGTH (BITS)
NAK_SEQ	4
L_SEQ_HI	4
FIRST	12
LAST	12
FCS	16
PADDING	**VARIABLE**
NAK_Map_Count	2
NAK_Map	
NAK_Map_SEQ	12
NAK_Map	8

Based on Figure 4, Wi-Fi argues that the data structure in Seo contains fields for the list type of coding, which are entitled FIRST, LAST, FCS, and PADDING, and fields for the bitmap type of coding, which are entitled NAK_Map_Count, NAK_Map_SEQ, and NAK_Map.

Wi-Fi argues that in Seo all fields are always present, either as useful values or as "padded zeros," i.e., placeholders, regardless of the value of the NAK_TYPE field. Therefore, Wi-Fi argues, the NAK_TYPE field does not function as a type identifier field that identifies the type of coding used in Seo's data structure.

The Board rejected that argument, relying on the disclosure in Seo that certain fields "exist" depending on the value of the NAK_TYPE field. *See* Seo, col. 5, ll. 54-57 ("When a value of the field NAK_TYPE is '00', the receiving station requests a retransmission of missed user data frames numbered a field FIRST through a field LAST."); col. 6, ll. 18-22 ("If a value of the field NAK_TYPE is '01', the field NAK_MAP_COUNT exi[s]ts."). Based on those portions of the Seo specification, the Board concluded that Seo discloses a control frame "that includes certain fields only when NAK_TYPE is '00' and includes other fields only when NAK_TYPE is '01.'" Accordingly, the Board rejected Wi-Fi's argument that NAK_TYPE is not a type identifier field.

The Board also credited the testimony of Broadcom's expert that it would not make sense to include unnecessary fields in a message. It was entirely reasonable for the Board to read the term "exist" in Seo in that way. Substantial evidence therefore supports the Board's conclusion that Seo discloses the type identifier field feature recited in the '215 patent.

B

Wi-Fi also argues that even if Seo discloses a type identifier field, Seo does not anticipate the '215 patent, because the NAK_TYPE field in Seo is part of the S-PDU header rather than the message field, as required by the claims.

The Board rejected that argument, finding that the '215 patent does not require the type identifier field to be in any particular part of the message, and that, in any event, Seo's NAK_TYPE field was included in the message field. We agree with the Board. Nothing in the '215 patent specifies whether the type identifier field must be located in the header or any other specific part of the message.

Wi-Fi also argues that a prior amendment to claim 1 shows that the claim is drawn to the distinction between the message body and the header. During the prosecution of the '215 patent, Wi-Fi offered the following amendment:

> said message field including a type identifier field and at least one of ~~a type identifier field,~~ a sequence number field, a length field, and a content field.

That amendment moved the type identifier field from being one of four optional fields to being a required field, accompanied by at least one of the three remaining optional fields.

On appeal, Wi-Fi argues that the amendment "distinguish[es], among other things, fields that were included in the header of the PDU such as the 'PDU_format' field shown in the admitted prior art." That argument is meritless. The type identifier field was identified as part of the message field before and after the amendment, so the amendment had no effect on where in the packet the type identifier field had to be located. The amendment simply made that term a required feature, rather than one of the options listed in the "at least one" clause.

That understanding is confirmed by the applicants' remarks accompanying the amendment. The applicants distinguished a prior art reference by stating that amended claim 1 "provides the type identifier field and at least one of a sequence number field, a length field, and a content field." Because there is no support in the patent or the prosecution history for Wi-Fi's distinction between the presence of the type identifier field in the message field and in the header, the Board was correct to reject Wi-Fi's argument.

C

Wi-Fi next argues that the Board erred in construing the term "type identifier field" in the phrase "responsive to the receiving step, constructing a message field for a second data unit, said message field including a type identifier field" to mean "a field of a message that identifies the type of that message." Wi-Fi argues that the Board's construction failed to specify that a type identifier field must distinguish the type of message from a number of different message types.

We agree with the Board that Wi-Fi's interpretation does no more than restate what is already clear from the Board's construction—that a type identifier field must distinguish between different message types. Wi-Fi's real quarrel is not with the Board's claim construction, but with the Board's conclusion that Seo discloses different message types. As we have noted, the Board's conclusion that Seo discloses different message types is supported by substantial evidence.

Appendix A

IV

Wi-Fi challenges the Board's analysis of claim 15. That claim reads:

> A method for minimizing feedback responses in an ARQ protocol, comprising the steps of:
>
> > sending a plurality of first data units over a communication link;
> >
> > receiving said plurality of first data units; and
> >
> > responsive to the receiving step, constructing a message field for a second data unit, said message field including a type identifier field and at least one of, a length field, a plurality of erroneous sequence number-fields, and a plurality of erroneous sequence number length fields, each of said plurality of erroneous sequence number fields associated with a respective one of said plurality of erroneous sequence number length fields.

Wi-Fi argues that claim 15, properly construed, requires that the message field contain either a "length field" or an "erroneous sequence number length field." Because Seo does not disclose length fields of either type, Wi-Fi argues that it does not anticipate claim 15.

Wi-Fi's argument is based on the structure of the "at least one of" clause. That clause requires that at least one of the following be present: "a length field," "a plurality of erroneous sequence number fields," or "a plurality of erroneous sequence number length fields." The second entry on the list, "a plurality of erroneous sequence-number fields," is not by itself a type of length field. However, the final clause of that limitation provides "each of said plurality of erroneous sequence number fields associated with a respective one of said plurality of erroneous sequence number length fields." That clause, Wi-Fi argues, requires that each erroneous sequence number field must be associated with an erroneous sequence number length field. For that reason, Wi-Fi contends that some sort of length field is required to meet claim 15.

Broadcom argues that the "each of said" clause requires that each of the erroneous sequence number length fields must be associated with an erroneous sequence number field, not the other way around. Therefore, in Broadcom's view, an erroneous sequence number field can stand alone, without an accompanying erroneous sequence number length field; for that reason, according to Broadcom, claim 15 does not require the presence of a length field in all cases.

Wi-Fi's is the better reading of the text of the claim. The structure of the "at least one of" limitation is best understood by stripping it to its essence: substituting A for the length field, B for the plurality of erroneous sequence number fields, and C for the erroneous sequence

number length fields. So viewed, the claim by its terms would require one of A, B, or C, except that each of B must be associated with one of C. That reading is at odds with Broadcom's, which would require each of C to be associated with one of B.

While the text of the limitation, standing alone, favors Wi-Fi's interpretation, we conclude that Wi-Fi's interpretation does not make sense in light of the specification, and thus that Broadcom's interpretation must be accepted as correct.

The specification of the '215 patent explains the properties and purpose of the length field. The length field is used in open-ended data structures to provide information about the data structure, such as the number of lists or bitmaps that are present in a packet, or the length of the bitmaps that are used to represent errors. *See* '215 patent, col. 2, ll. 56-62; col. 6, ll. 25-34; col. 7, ll. 52-65. Because the length of a particular message can be fixed by the rules of the protocol, a length field is not a required feature of the invention. *See id.*, col. 7, ll. 57-60 ("For this exemplary embodiment, each such message includes a type identifier, and the length is either fixed or indicated by a length field for each specific message.").

The specification also describes the purpose of the erroneous sequence number fields and the erroneous sequence number length fields. The specification explains that one method for representing errors "is to include a field after each list element which determines the length of the error, instead of indicating the length of the error

with an 'ending' [sequence number]." *Id.*, col. 7, ll. 31-33. Using that method, strings of consecutive errors are represented with an erroneous sequence number that marks the beginning of the error, followed by an erroneous sequence number length field that marks how long the error persists. That method is generally more efficient than representing an error sequence by its starting and ending point because "[i]n most systems, the size of the length field would then be substantially smaller than the size of the [sequence number] field." *Id.*, col. 7, ll. 33-35.

Figure 9 of the '215 patent shows how that method would represent the failed transmission of a series of packets numbered 51-77:

Field	**Field Value**		**Field size**
	Decimal	*Bits*	
LIST[2]	N/A[1]	01	2
LENGTH	1	0001	5
SN_1	51	000000110011	12
L_1	27	11011	5
ACK	N/A	11	2
SN	101	000001100101	12

The erroneous sequence number field, SN_1, shows that the error sequence begins at sequence number 51. The erroneous sequence number length field, L_1, shows that the error extends for 27 packets, covering packets 51 through 77.

Based on those descriptions of embodiments of the invention, it is clear that an erroneous sequence number length field is useful only when it is paired with an erroneous sequence number field, while an erroneous sequence number field can be useful without an accompanying erroneous sequence number length field. Thus, an erroneous sequence number field can stand alone, but an erroneous sequence number length field cannot.

The '215 specification makes clear that an erroneous sequence number field can be used absent an erroneous sequence number length field. As examples, Figure 10 shows four erroneous sequence numbers that are used to indicate errors, and Figure 12 shows a bitmap that contains an erroneous sequence number field to indicate where the bitmap begins. Both contain erroneous sequence number fields, but not erroneous sequence number length fields, thus supporting the Board's construction of claim 15.

By contrast, an erroneous sequence number length field can indicate an error only by reference to a starting point, which would be represented by an erroneous sequence number field. The '215 patent discloses no examples of an erroneous sequence number length field without an accompanying erroneous sequence number field, for the simple reason that an erroneous sequence number length field standing alone would not convey sufficient information to determine what packets must be retransmitted.

Based on the full teaching of the specification, we conclude that Wi-Fi's proposed construction of claim 15

is unreasonable. It would allow an erroneous sequence number length field to be present without an erroneous sequence number field, which the specification indicates would not work, while requiring all erroneous sequence number fields to be associated with erroneous sequence number length fields, which the patent teaches is not necessary. The Board's construction, on the other hand, comports with what the patent teaches about the number and length fields. Even though the language of claim 15, standing alone, provides some support for Wi-Fi's interpretation, we hold that in the end the claim must be read as the Board construed it in order to be faithful to the invention disclosed in the specification.

Accordingly, claim 15, as properly construed, does not require either a length field or a plurality of erroneous sequence number length fields. Because Wi-Fi contends that Seo is distinguishable solely on the ground that it does not require length fields of any type, we hold that the Board was correct to conclude that Seo anticipates claim 15 of the '215 patent.

Each party shall bear its own costs for this appeal.

AFFIRMED

Appendix A

REYNA, *Circuit Judge*, dissenting.

In this appeal, the court for the first time defines the legal standard for establishing "privity" under 35 U.S.C. § 315(b). The majority concludes that to establish privity, a petitioner must have had control over the prior district court litigation. This narrow standard will make it difficult for a patentee to successfully assert § 315(b). I believe that control of a prior litigation is but one form of privity. Privity may exist in other forms that do not involve control over the prior litigation, all of which are excluded under the standard adopted by the majority. I respectfully dissent.

This court recently ruled *en banc* that § 315(b) time bar determinations by the Patent Trial and Appeal Board ("Board") in *inter partes* review ("IPR") proceedings are appealable. *Wi-Fi One, LLC v. Broadcom Corp.*, 878 F.3d 1364, 1375 (Fed. Cir. 2018) (en banc). Following that ruling, the court remanded these three consolidated cases to this panel to consider the merits of Wi-Fi One, LLC's ("Wi-Fi") appeal of whether Broadcom Corporation's ("Broadcom") petition is time barred, and whether Wi-Fi is entitled to additional discovery on the § 315(b) issue.

The majority affirms the Board's decision that Broadcom's petition is not time barred under § 315(b). The majority rejects Wi-Fi's argument that the Board applied a legally erroneous standard in its privity analysis. The majority affirms the Board's decision that the applicable legal standard is whether "the party in question had sufficient control over the prior proceeding." Maj. Op. at 17.

The majority also concludes that the Board did not abuse its discretion in denying Wi-Fi's request for additional discovery. Maj. Op. at 16.

I depart from the opinion of my colleagues. I conclude that the Board applied an erroneous standard for establishing privity, which in turn drove its decision to deny further discovery. The Board's denial of Wi-Fi's motion for additional discovery was therefore an abuse of discretion. I would vacate the Board's final written decision with instruction that the Board permit limited, focused discovery on the § 315(b) privity issue and thereafter determine anew whether Broadcom's petition is time barred in accordance with the correct standard.

I. Privity

In 2010, Wi-Fi's predecessors-in-interest, Ericsson, Inc. and Telefonaktiebolaget LM Ericsson (collectively "Ericsson"), filed its complaint for infringement of U.S. Patent Nos. 6,772,215 ("'215 patent"), 6,466,568 ("'568 patent"), and 6,424,625 ("'625 patent") in the United States District Court for the Eastern District of Texas against multiple defendants ("the Texas Litigation"). *See Ericsson Inc. v. D-Link Sys., Inc.*, No. 6:10-CV-473, 2013 U.S. Dist. LEXIS 110585, 2013 WL 4046225, at *24 n.1 (E.D. Tex. Aug. 6, 2013), *aff'd in part, vacated in part, rev'd in part*, 773 F.3d 1201 (Fed. Cir. 2014). The case progressed to a jury trial, where the jury found that the defendants infringed the asserted claims. Broadcom, the appellee here, was not a named defendant in the Texas Litigation. In 2013, three years after the defendants in

the Texas Litigation were served with complaints for infringement, Broadcom filed three separate petitions for IPR of the three patents.

During the pre-institution phase, Wi-Fi sought to bar institution of Broadcom's IPRs. Wi-Fi argued that Broadcom "is subject to the 35 U.S.C. § 315(b) bar as a privy to" the defendants of the Texas Litigation initiated three years before the filing of Broadcom's petitions. J.A. 144. Wi-Fi argued that privity could exist on multiple independent grounds: substantive legal relationship between Broadcom and the Texas Litigation defendants, Broadcom's control over the Texas Litigation, and the defendants' collusion in filing of the IPR petitions. J.A. 46, 49-50. However, the Board limited its privity analysis to a single ground. The Board repeatedly stated that in order to find privity, Wi-Fi had to show that Broadcom had control over the Texas Litigation. "To be bound [to the outcome of the Texas Litigation], in normal situations, Broadcom *must have had control over the Texas Litigation*." *Broadcom Corp. v. Wi-Fi One, LLC*, No. IPR2013-00601, 2015 Pat. App. Filings LEXIS 8206, Paper No. 23, at 7 (P.T.A.B. Mar. 6, 2015) (emphasis added); J.A. 81.[1] Applying this standard, the Board rejected

1. *See also* J.A. 85 ("The totality of the evidence fails to amount to more than a 'mere possibility' that Broadcom *controlled, or could have controlled, the Texas litigation*.") (emphasis added); J.A. 87 ("[T]he IPR filings *fail to show control over the Texas Litigation*. The evidence does not amount to more than speculation that any of Broadcom's activity constitutes evidence of collusion with the D-Link defendants in the Texas Litigation in a manner that would bind Broadcom to the outcome thereof.") (emphasis added); J.A. 89 ("The

Wi-Fi's motion for additional discovery because Wi-Fi's evidence and arguments failed to show that "Broadcom controlled or could have controlled the Texas Litigation." J.A. 89.

Wi-Fi appeals and argues that "[t]he Board committed a critical and serious legal error" in making its § 315(b) determination by "appl[ying] a narrow and rigid legal standard that focused exclusively on whether Broadcom has a right to control the District Court Litigation." Appellant Br. at 31, 34. Wi-Fi argues that "[t]he Board's erroneous legal standard undermines both the plain text and purpose of § 315(b)." *Id.* at 35. The majority avoids Wi-Fi's precise argument on appeal, endorses the Board's narrow standard for proving privity under § 315(b), and affirms the Board's finding of no privity between Broadcom and the Texas Litigation defendants because "[t]here was no such showing of control in this case." Maj. Op. at 18.

I disagree. The Board's narrow and rigid "control over the prior litigation" requirement contravenes precedent from the Supreme Court and this court, impermissibly cabins the privity inquiry into only one factor—control of the prior litigation—and ignores other relevant factors. It fails to account for the complexities of the marketplace and the infinite number of business forms and relationships that entities assume to achieve common purpose.

---

evidence and arguments fail to show that the sought-after discovery would have more than a mere possibility of producing useful privity information, *i.e., that Broadcom controlled or could have controlled the Texas Litigation*.") (emphasis added).

The term "privity" is not defined in the Leahy-Smith America Invents Act ("AIA"). I agree with the majority that Congress intended to adopt common law principles of "privy" and "real party in interest" when it drafted the AIA. Maj. Op. at 8 (citing 154 Cong. Rec. S9987 (daily ed. Sept. 27, 2008) (statement of Sen. Kyl)). Congress did not leave to the U.S. Patent and Trademark Office's ("PTO") discretion to determine the legal standards for "privity"; it is a question well within the province of the judiciary. *See U.S. Bank Nat'l Ass'n ex rel. CWCapital Asset Mgmt. LLC v. Vill. at Lakeridge, LLC*, 138 S. Ct. 960, 967, 200 L. Ed. 2d 218 (2018) (finding appellate courts should apply *de novo* review when "elaborating on a broad legal standard" because of "'institutional advantages' in giving legal guidance" (quoting *Salve Regina College v. Russell*, 499 U.S. 225, 231-33, 111 S. Ct. 1217, 113 L. Ed. 2d 190 (1991))); *Princeton Vanguard, LLC v. Frito-Lay N. Am., Inc.*, 786 F.3d 960, 964 (Fed. Cir. 2015) ("Whether the Board applied the correct legal standard . . . is a question of law we review *de novo*."); *McDonnell Douglas Corp. v. United States*, 323 F.3d 1006, 1014 (Fed. Cir. 2003) (holding that "determination of legal standards is a pure issue of law" that we review *de novo*).

The general definition of privity is "[t]he connection or relationship between two parties, each having a legally recognized interest in the same subject matter (such as a transaction, proceeding, or piece of property)." *Privity*, Black's Law Dictionary (10th ed. 2014). Generally, one is not bound by a judgment "in a litigation in which he is not designated as a party or to which he has not been made a party by service of process." *Hansberry v. Lee*, 311 U.S.

32, 40, 61 S. Ct. 115, 85 L. Ed. 22 (1940). However, this rule is subject to important exceptions where the judgment would preclude a nonparty from relitigating the same claims and issues in another forum. *See Taylor v. Sturgell*, 553 U.S. 880, 893, 128 S. Ct. 2161, 171 L. Ed. 2d 155 (2008). The term "privity" is used broadly "as a way to express the conclusion that nonparty preclusion is appropriate on any ground." *Id.* at 894 n.8; *Richards v. Jefferson Cty., Ala.*, 517 U.S. 793, 798, 116 S. Ct. 1761, 135 L. Ed. 2d 76 (1996) (same); *Int'l Nutrition Co. v. Horphag Research, Ltd.*, 220 F.3d 1325, 1329 (Fed. Cir. 2000) (stating that the term privity "is simply a shorthand way of saying that [a] nonparty [*i.e.*, a party not named in a prior action] will be bound by the judgment in that action").

In a unanimous opinion, the Supreme Court in *Taylor* described a non-exhaustive list of six categories where each alone is sufficient to establish privity between a named party and a nonparty in litigation: (1) an agreement between the parties to be bound; (2) pre-existing substantive legal relationships between the parties; (3) adequate representation by the named party; (4) the nonparty's control of the prior litigation; (5) where the nonparty acts as a proxy for the named party to relitigate the same issues; and (6) where special statutory schemes foreclose successive litigation by the nonparty (*e.g.*, bankruptcy and probate). 553 U.S. at 894-95. The Supreme Court noted that this list of six categories "is meant only to provide a framework" for considering privity, "not to establish a definitive taxonomy." *Id.* at 893 n.6.

The PTO's Trial Practice Guide is consistent with *Taylor*. Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756 (Aug. 14, 2012). The Trial Practice Guide provides that the PTO "intends to evaluate what parties constitute 'privies' in a manner consistent with the flexible and equitable considerations established under federal caselaw." *Id.* at 48,759. The Trial Practice Guide adopts *Taylor*'s definition for privity: "[p]rivity is essentially a shorthand statement that collateral estoppel is to be applied in a given case . . . . The concept refers to a relationship between the party to be estopped and the unsuccessful party in the prior litigation which is sufficiently close so as to justify application of the doctrine of collateral estoppel." *Id.* (citations omitted); *see Taylor*, 553 U.S. at 894 n.8 ("The term 'privity,' however, has also come to be used more broadly, as a way to express the conclusion that nonparty preclusion is appropriate on any ground.").

Based on the record before the Board, at minimum three of the six *Taylor* grounds—the second, fourth and fifth—are implicated in this case. First, privity can be found when there is a substantive legal relationship between the parties. *Taylor*, 553 U.S. at 894. For example, as this court has observed, nonparty preclusion is warranted when an indemnitor participates in defending an action brought against its indemnitee. *Intel Corp. v. U.S. Int'l Trade Comm'n*, 946 F.2d 821, 839 (Fed. Cir. 1991) (finding that "an indemnification agreement, in other cases, has alone been enough to find privity"); *see also SpeedTrack, Inc. v. Office Depot, Inc.*, No. C 07-3602 PJH, 2014 U.S. Dist. LEXIS 62674, 2014 WL 1813292,

at *6-7 (N.D. Cal. May 6, 2014) (ruling that in view of the indemnification obligations the manufacturer owed to its customer, the manufacturer was in privity with the customer such that claim preclusion could apply), *aff'd*, 791 F.3d 1317, 1324-29 (Fed. Cir. 2015). In cases involving indemnification agreements, the indemnitor operates like an insurer who indemnifies the insured—the indemnitee—and when the indemnitor has paid the entire claim to the indemnitee, he is subrogated to the rights of the indemnitee and becomes the real party in interest. *See* 18A Charles Alan Wright, Arthur R. Miller & Edward H. Cooper, Federal Practice and Procedure § 1546 (2d ed. 2011) (hereinafter "Wright & Miller"). In this regard, the indemnitor stands in the shoes of the indemnitee. Thus, I disagree with the majority's endorsement of the Board's finding that an indemnification provision cannot be indicative of privity or real-party-in-interest status. Maj. Op. at 15-16. Indemnification agreements alone may not always mandate a finding of nonparty preclusion, but their existence is strong evidence for privity and, at minimum, presents an independent basis that warrants additional discovery into the terms of these agreements and the parties' actions pursuant to the agreements.

Wi-Fi discovered that Broadcom had indemnification agreements pertaining to the infringing products with some Texas Litigation defendants during IPR. Indeed, Broadcom supplied the Texas Litigation defendants the very chipsets that formed the basis for the infringement allegations in the Texas Litigation. Broadcom does not deny the existence of the indemnification agreements, nor contest whether they pertained to the accused

products. Rather, Broadcom reported in its SEC filings that it is not uncommon for Broadcom to be "required to indemnify some customers and strategic partners under our agreements if a third party alleges or if a court finds that our products or activities have infringed upon, misappropriated or misused another party's proprietary rights." J.A. 190-91. The Board acknowledged that the district court in the Texas Litigation mentioned "two indemnity agreements and an e-mail communication about indemnity." J.A. 84. Wi-Fi also alleges that Broadcom assisted defendants during the Texas Litigation, and provided analysis of the "very patents that are now the subject of Broadcom's [IPR] petitions." J.A. 45-46.

Citing *Taylor*, Wi-Fi argued that indemnity agreements constitute a substantive legal relationship sufficient under the second category of *Taylor* to establish privity in its motion for additional discovery. Wi-Fi proffered concrete evidence of a substantive legal relationship between Broadcom and the prior defendants, and its position cannot be said to be mere "speculation" or "conjecture." J.A. 90. The evidence suggests that the relationship between Broadcom and the Texas Litigation defendants went beyond typical transactions between supplier and buyer. Based on this evidence, Wi-Fi sought limited additional discovery on the terms of the indemnification agreements, but was rejected by the Board. This denial was in error. The terms of indemnity agreements between Broadcom and the Texas Litigation defendants are important to determine the relationship between Broadcom and the Texas Litigation defendants. Depending on the agreements' terms and whether Broadcom has paid claims

to the defendants pursuant to the court's judgment in the Texas Litigation, the indemnification agreements would create a substantive legal relationship between Broadcom and the Texas Litigation defendants, potentially barring the PTO under § 315(b) from instituting Broadcom's IPRs. *See Intel*, 946 F.2d at 839; *Speed-Track*, 2014 U.S. Dist. LEXIS 62674, 2014 WL 1813292, at *6-7.

Second, privity can also be found when a nonparty "assume[d] control" over the litigation in which that judgment was rendered. *Taylor*, 553 U.S. at 895 (citing *Montana v. United States*, 440 U.S. 147, 154, 99 S. Ct. 970, 59 L. Ed. 2d 210 (1979)). The rationale for this ground of nonparty preclusion is that since the nonparty has had "the opportunity to present proofs and argument," he has already "had his day in court" even though he was not a named party to the litigation. *Id.* (quoting Restatement (Second) of Judgments § 39 cmt. a). To determine whether privity exists between parties, "all contacts between [the parties], direct and indirect, must be considered." *Intel*, 946 F.2d at 838. Although whether the nonparty exercised or could have exercised control over a party's participation in a proceeding is a "common consideration" for a privity inquiry, the PTO's Trial Practice Guide explicitly states that "[c]ourts and commentators agree, however, that there is *no 'bright-line test'* for determining the *necessary quantity or degree of participation* to qualify as a 'real party-in-interest' or 'privy' based on the control concept." 77 Fed. Reg. at 48,759 (emphases added).

The evidence before the Board shows that Broadcom was more than a bystander to the Texas Litigation.

Broadcom has a corporate policy on litigation on behalf of its customers, including an undisputed contractual obligation to indemnify the Texas Litigation defendants. J.A. 84. Broadcom's SEC filings report that to protect interests of its indemnified "customers and strategic partners," Broadcom "engage[s] in litigation to . . . determine the validity and scope of the proprietary rights of others, including [its] customers." J.A. 45. Wi-Fi also proffered evidence that Broadcom coordinated with the defendants in the Texas Litigation, which may have assisted Broadcom in the filing of the IPRs. J.A. 45-47, 50. In addition, Broadcom filed an amicus brief in the appeal from the Texas Litigation supporting the defendants. While the Texas Litigation was pending, Broadcom argued in another forum that the assertion of Wi-Fi's patents was anticompetitive, demonstrating that Broadcom had direct business interests implicated in the Wi-Fi patents asserted in the Texas Litigation. Thus, while the evidence so far may not be sufficient to establish the extent of control that Broadcom had in the Texas Litigation, the evidence is sufficient to warrant additional discovery concerning Broadcom's control over the Texas Litigation defendants. In my view, discovery is required for the Board to properly assess the degree of Broadcom's involvement in the Texas Litigation. *See Intel*, 946 F.2d at 838.

Finally, a party bound by a judgment cannot escape preclusion by relitigating the same issues through a nonparty proxy. *Taylor*, 553 U.S. at 895 (recognizing that a nonparty cannot "later bring[] suit as the designated representative of a person who was a party to the prior

adjudication"). This concept is similar to real party in interest. The typical common law expression of real party in interest indicates a party "who, according to the governing substantive law, is entitled to enforce the right." *See* Wright & Miller § 1543 (discussing Fed. R. Civ. P. 17). This notion reflects standing concepts that do not fit directly in the America Invents Act trial context because there is no standing requirement for a petitioner to file an IPR. The PTO interprets real party in interest as "the party that desires review of the patent" and "may be the petitioner itself, and/or it may be the party or parties at whose behest the petition has been filed." 77 Fed. Reg. at 48,759.

Wi-Fi contends that the Texas Litigation defendants are the real parties in interest in Broadcom's IPRs. In support, Wi-Fi alleges evidence that suggested collusion between the defendants and Broadcom in the filing of the petitions. For example, Broadcom's petitions relied on Ericsson's (Wi-Fi's predecessor-in-interest) expert report from the Texas Litigation—a report that Broadcom allegedly could only have obtained from one of the defendants. Broadcom's IPR petitions also recited the same prior art references used by the defendants in the Texas Litigation, as the Board acknowledged, again suggesting collusion between Broadcom and the defendants. Before the Board, Wi-Fi sought discovery of communications between Broadcom and the defendants relating to the filing of the IPRs. Under the facts of this case, and in view of *Taylor*, Wi-Fi provided the Board with sufficient evidence to support its privity allegations and the Board abused its discretion by denying Wi-Fi's request for discovery.

In face of a fact pattern that calls into question multiple *Taylor* categories—substantive legal relationships, control of the prior litigation, and relitigating by proxy—the Board applied a "control over the prior litigation" test for privity that is impermissibly narrow. The Board concluded that "[t]o be bound [to the outcome of the Texas Litigation], in normal situations, Broadcom *must have had control over the Texas Litigation*." J.A. 81 (emphasis added). The Board's narrow application is inconsistent with *Taylor* and the PTO's Trial Practice Guide. By concluding "[p]aying for trial expenses pursuant to indemnity normally does not establish privity or control," the Board failed to recognize that substantive legal relationship under *Taylor* is a separate ground for privity from control over prior litigation, and is not merely a circumstance to establish the latter. J.A. 85. The Board cited a few cases from other circuits and district courts to support its proposition, J.A. 81-83, but these cases pre-dated *Taylor* and do not stand for the proposition that privity can only be satisfied if the petitioner controls the district court litigation. At most, these cases demonstrate that when a party has had control over a prior litigation, privity can be found, an outcome that is consistent with *Taylor*'s fourth category.

Privity, therefore, can exist in situations where a party has not had direct control over a prior litigation, as outlined by *Taylor* and acknowledged by the PTO. 77 Fed. Reg. at 48,759 ("There are *multiple factors* relevant to the question of whether a non-party may be recognized as a 'real party-in-interest' or 'privy.'" (emphasis added)). Hence, the majority reaches the incorrect conclusion

that the Board's legal standard for privity analysis "is consistent with general legal principles."[2] Maj. Op. at 9.

In deciding whether privity exists under § 315(b), the Board should start with a review of the six grounds of privity set forth in *Taylor* and consider all the facts and

2. The majority justifies its narrow holding on grounds that Wi-Fi did not raise other *Taylor* grounds before the Board and that Wi-Fi limited its argument to the "control over the prior litigation" ground. Maj. Op. at 12 n.3. This is incorrect. In its motion for additional discovery, Wi-Fi argued that *Taylor* is the legal standard and it sets out the six categories for determining whether a nonparty to a suit is bound by a prior judgment. J.A. 49. Wi-Fi explicitly argued that privity could found on multiple grounds: substantive legal relationships based on indemnification agreements, Broadcom's control over the Texas Litigation, and the defendants' collusion in filing of the IPR petitions. J.A. 46, 49-50. For example, Wi-Fi argued that "[o]ne [*Taylor*] category asks whether the nonparty maintains a 'substantive legal relationship' with a party in suit" and that "[t]he weight of authority strongly supports that an indemnity agreement constitutes a substantive legal relationship sufficient to establish privity." J.A. 49, 50. Wi-Fi repeats the allegation that the Board applied an erroneous legal standard in the instant appeal. *See* Appellant Br. at 31. It is well-established that a litigant has a "right to have all issues fully considered and ruled on by the appellate court." *Bernklau v. Principi*, 291 F.3d 795, 801 (Fed. Cir. 2002) (citing *United States v. Garza*, 165 F.3d 312, 314 (5th Cir. 1999)). Although this does not equate to a right to a full written opinion on every issue raised, this court should not avoid addressing the *very* question on appeal: what is the legal standard for establishing that a petition is time barred under § 315(b)? This is particularly true where, as here, we review for the first time the legal standard for privity under § 315(b), a question that naturally rises from our *en banc* decision holding that this court has jurisdiction to review § 315(b) determinations. *Wi-Fi One*, 878 F.3d at 1375.

circumstances for each ground. Among the factors that the Board should consider are: (1) whether there exists a substantive legal relationship between the parties and the nature of that relationship; (2) whether the petitioner and an accused infringer in a prior litigation have worked in concert in that litigation; and (3) whether the petitioner and the accused infringer in the prior litigation have worked in concert to file the IPR petition.[3]

Substantive legal relationships may take a variety of forms, including, but not limited to, subsidiary and parent company, joint venture, preceding and succeeding owners of property, bailee and bailor, assignee and assignor, indemnitee and indemnitor, and subrogee and subrogor. *See Taylor*, 553 U.S. at 894. For example, the relationship between parties may extend beyond that of typical suppliers and buyers, such that the parties are stakeholders engaged in a common enterprise. In such instances, a substantive legal relationship may exist

3. The use of "prior litigation" does not imply that the prior district court action must be resolved or reach a judgment for the purpose of the time bar under § 315(b). Section 315(b) states that "[a]n inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner *is served with a complaint alleging infringement of the patent*." 35 U.S.C. § 315(b) (emphasis added). Once a complaint of infringement is served, the petitioner, real party in interest, or privy of the petitioner has a statutory one year period to file an IPR from the date of service. Nothing in § 315(b) indicates that the outcome of the district court litigation affects the time bar determinations. The time bar applies regardless if the prior litigation is still ongoing at the end of the one year period, or if the parties settle before that date.

and privity may be established. Further, a petitioner's participation in the prior litigation can take a variety of forms, such as: whether the petitioner participated, directly or indirectly, in the prior litigation and the extent of the participation; whether the petitioner controlled, or had opportunity to control the prior litigation; and whether the petitioner provided funding for or was obliged to fund the prior litigation. Similarly, an accused district court litigation infringer's participation in the filing of the IPR petition via a nonparty proxy, such as whether the accused infringer participated, controlled, or funded the filing of the IPR petition, directly or indirectly, could lead to a finding that the petitioner is in privity with the accused infringer.

II. DISCOVERY

Relying on an erroneous standard of privity, the Board abused its discretion when it denied Wi-Fi's motion for additional discovery. The Board gave two reasons for denying Wi-Fi's motion for additional discovery. First, the Board cautioned that "without some evidence of actual control of a trial," the discovery could "spiral into what amounts to a separate trial that involves a myriad of considerations." J.A. 89. The Board also suggested that a restrictive standard for additional discovery is required, or anything less would "impact[] the PTAB's mandate to expedite the proceedings and provide limited discovery in the interests of justice." *Id.*

The Board's first ground fails because the record of this case amply supports granting Wi-Fi's motion for

additional discovery. First, Wi-Fi's request amounts to more than a "mere possibility" or "mere allegation that something useful [to the proceeding] will be found." J.A. 80. Wi-Fi has asserted the existence of concrete evidence, which Broadcom does not dispute. Second, Wi-Fi's discovery request was limited in scope and focused only on the privity claims. And third, the requested discovery, if proven to be true, would likely establish privity between Broadcom and the Texas Litigation defendants.

The inquiry into privity is highly fact-dependent, and the Board should not be overly restrictive in granting discovery motions. *See Intel*, 946 F.2d at 838 (holding that "all contacts between [the parties], direct and indirect, must be considered"). As discussed above, each *Taylor* ground alone may be sufficient to establish privity and thus bar the institution of the IPR. Privity can also be inferred if circumstantial evidence supports collusion or a substantive legal relationship between the parties. This is particularly relevant because evidence of privity often involves confidential commercial agreements that are not publically available.[4] Parties often take steps to conceal their relationship and in so doing hide the identity of the actual stakeholder(s). Additional discovery should only be denied when a patentee fails to concretely identify evidence implicating at least one *Taylor* factor, or when the allegation of privity, if taken as true, cannot establish a single *Taylor* factor.

4. Broadcom and the Texas Litigation defendants refused to waive confidentiality with regard to the indemnification agreements before the Board. J.A. 51.

Wi-Fi's motion for additional discovery should be granted because the record shows that the relationship between Broadcom and the Texas Litigation defendants went beyond a typical supplier/buyer relationship; Wi-Fi alleged factual evidence to support its discovery request; and most of Wi-Fi's requested evidence, such as the indemnification agreements (the existence of which is not disputed by Broadcom) are easy to produce and cannot be otherwise obtained. When viewed in aggregate, Wi-Fi's showing established a strong basis for allowing discovery.[5]

The Board's expediency ground also fails. The Board notes that given the statutory deadlines for issuing final written decisions in IPRs, the Board "must be conservative in authorizing additional discovery." J.A. 80. However, the desire to expedite the proceedings cannot come at the cost of justice. *Sackett v. EPA*, 566 U.S. 120, 130, 132 S. Ct. 1367, 182 L. Ed. 2d 367 (2012) (repudiating "the principle that efficiency of regulation conquers all"). Importantly, a fundamental statutory purpose of § 315(b) is to "govern[] the relation of IPRs to other proceedings or actions, including actions taken in district court," and to "set[] limits on the [PTO] Director's statutory authority to institute, balancing various public interests." *Wi-Fi One*, 878 F.3d at 1374.

5. Wi-Fi sought to discover contracts between the parties, especially the terms of the indemnification agreements, records of invoices and payments between them pursuant to the indemnification agreements, and communications relating solely to the Texas Litigation and the IPRs. The Board may limit the scope of additional discovery.

As a threshold issue prior to institution, time bar determinations are vital because IPRs can deprive a patentee of significant property rights though the cancellation of patents, as happened in this case. Although the statute imposes no standing requirement on who may file a petition, § 315(b) attests that the doors to IPR institution are not open to every would-be petitioner. As this court noted *en banc*, § 315(b) protects both the integrity and efficiency of the IPR process by giving the Director of the PTO an important tool to refuse institution. *Wi-Fi One*, 878 F.3d at 1374. The restrictive standard adopted by the majority dulls that tool and defeats the purpose of § 315(b). For these reasons, I respectfully dissent.

APPENDIX B — OPINION OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, DATED APRIL 20, 2018

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

2015-1945

WI-FI ONE, LLC,

Appellant,

v.

BROADCOM CORPORATION,

Appellee,

ANDREI IANCU, UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE,

Intervenor.

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2013-00602.

Decided: April 20, 2018

Before DYK, BRYSON, and REYNA, *Circuit Judges*.
REYNA, *Circuit Judge*, dissents.

Appendix B

PER CURIAM.

The judgment of the Patent Trial and Appeal Board is

AFFIRMED

REYNA, *Circuit Judge*, dissents for the reasons stated in his dissenting opinion in *Wi-Fi One, LLC v. Broadcom Corp.*, No. 2015-1944 (Fed. Cir. April 20, 2018).

APPENDIX C — OPINION OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, DATED APRIL 20, 2018

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

2015-1946

WI-FI ONE, LLC,

Appellant,

v.

BROADCOM CORPORATION,

Appellee,

ANDREI IANCU, UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE,

Intervenor.

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2013-00636.

Decided: April 20, 2018

Before DYK, BRYSON, and REYNA, *Circuit Judges*.
REYNA, *Circuit Judge*, dissents.

Appendix C

PER CURIAM.

The judgment of the Patent Trial and Appeal Board is

AFFIRMED

REYNA, *Circuit Judge*, dissents for the reasons stated in his dissenting opinion in *Wi-Fi One, LLC v. Broadcom Corp.*, No. 2015-1944 (Fed. Cir. April 20, 2018).

APPENDIX D — OPINION OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, DATED JANUARY 8, 2018

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

2015-1944, 2015-1945, 2015-1946

WI-FI ONE, LLC,

Appellant,

v.

BROADCOM CORPORATION,

Appellee,

JOSEPH MATAL, PERFORMING THE FUNCTIONS AND DUTIES OF THE UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR, U.S. PATENT AND TRADEMARK OFFICE,

Intervenor.

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2013-00601.

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2013-00602.

Appendix D

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2013-00636.

Before Prost, *Chief Judge*, Newman, Lourie, Bryson,[1] Dyk, Moore, O'Malley, Reyna, Wallach, Taranto, Chen, Hughes, and Stoll, *Circuit Judges*.

Opinion for the court filed by *Circuit Judge* Reyna, in which *Chief Judge* Prost and *Circuit Judges* Newman, Moore, O'Malley, Wallach, Taranto, Chen, and Stoll join.

Concurring opinion filed by *Circuit Judge* O'Malley.

Dissenting opinion filed by *Circuit Judge* Hughes, in which *Circuit Judges* Lourie, Bryson, and Dyk join.

January 8, 2018, Decided

Reyna, *Circuit Judge*.

Congress has prohibited the Director of the United States Patent and Trademark Office from instituting inter partes review if the petition requesting that review is filed more than one year after the petitioner, real party in interest, or privy of the petitioner is served with a complaint for patent infringement. 35 U.S.C. § 315(b). Congress also provided that the Director's determination

1. Circuit Judge Bryson assumed senior status on January 7, 2013.

"whether to institute an inter partes review under this section shall be final and nonappealable." *Id.* § 314(d). The question before us is whether the bar on judicial review of institution decisions in § 314(d) applies to time-bar determinations made under § 315(b). In *Achates Reference Publishing, Inc. v. Apple Inc.*, 803 F.3d 652, 658 (Fed. Cir. 2015), a panel of this court held in the affirmative that a § 315(b) time-bar determination is final and nonappealable under § 314(d). Today, the court revisits this question en banc.

We recognize the strong presumption in favor of judicial review of agency actions. To overcome this presumption, Congress must clearly and convincingly indicate its intent to prohibit judicial review. We find no clear and convincing indication of such congressional intent. We therefore hold that the time-bar determinations under § 315(b) are appealable, overrule *Achates*'s contrary conclusion, and remand these cases to the panel for further proceedings consistent with this opinion.

I. Background

A. America Invents Act

In 2011, Congress passed the Leahy-Smith America Invents Act ("AIA"), which created inter partes review ("IPR") proceedings. *See* Pub. L. No. 112-29, § 6(a)—(c), 125 Stat. 284, 299-305 (2011); 35 U.S.C. §§ 311-319. IPR and other post-grant proceedings are intended to be quick and cost effective alternatives to litigation for third parties to challenge the patentability of issued claims. H.R. Rep. No. 112-98, pt. 1, at 48 (2011); 157 Cong. Rec.

2,710 (2011) (statement of Sen. Grassley). Sections 311 and 312 of Title 35 establish who may petition for IPR, the grounds for review in an IPR, the earliest permitted time for a petition for an IPR, and the requirements of the petition for an IPR. Under § 311, a person who is not the owner of a patent may petition the Director to institute IPR of one or more patent claims on permitted grounds, alleging unpatentability on certain prior art bases. Section 312 provides that the petition must, among other things, "identif[y], 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." 35 U.S.C. § 312(a)(3). Section 313 provides that the patent owner may file a preliminary response to the petition.

In § 314, subsection (a) prescribes the threshold "determin[ation]" required for the Director to institute: a "reasonable likelihood" that the petitioner will succeed in its patentability challenge to at least one of the challenged patent claims. Subsections (b) and (c) prescribe the timing of and notice requirements for the institution decision. And § 314(d) addresses judicial review of the Director's IPR institution determination under § 314. Specifically, § 314(d) provides that "[t]he determination by the Director whether to institute an inter partes review *under this section* shall be final and nonappealable."[2] (emphasis added).

---

2. The Director has delegated the authority to institute IPR to the Patent Trial and Appeal Board ("the Board"). 37 C.F.R. §§ 42.4(a), 42.108. We have held this delegation to be constitutionally and statutorily permissible. *Ethicon Endo-Surgery, Inc. v. Covidien LP*, 812 F.3d 1023, 1033 (Fed. Cir. 2016).

The remainder of the IPR-related provisions of the AIA go beyond the preliminary procedural requirements and the preliminary determination regarding likely unpatentability. Section 315, for example, governs the relationship between IPRs and other proceedings conducted outside of the IPR process. The provision at issue in this appeal, § 315(b), provides that "[a]n inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent." This one-year time bar does not apply to a request for joinder under § 315(c).

Section 316 addresses the "conduct of" IPRs, including amendments of the patent and evidentiary standards. Section 317 addresses settlement.

If the Director determines to institute IPR, in most cases, the Board must "issue a final written decision with respect to the patentability of any patent claim challenged by the petitioner," as well as any new claims added during IPR. 35 U.S.C. § 318(a). Any party to IPR "dissatisfied" with the final written decision may appeal that decision to this court. *Id.* §§ 141(c), 319.

B. *Achates*

In 2015, a panel of this court decided the same issue before us today: whether § 314(d) precludes judicial review of § 315(b) time-bar determinations. In *Achates*, the Board canceled certain patent claims through IPR. 803 F.3d at

653. On appeal, the patent owner argued that the Board acted outside of its statutory authority by instituting IPR on a petition that was time-barred under § 315(b). *Id.* The panel rejected this argument, holding that "35 U.S.C. § 314(d) prohibits this court from reviewing the Board's determination to initiate IPR proceedings based on her assessment of the time bar of § 315(b), even if such assessment is reconsidered during the merits phase of proceedings and restated as part of the final written decision." *Id.* at 658. According to the panel, the Board's misinterpretation of § 315(b) does not constitute *ultra vires* agency action that might otherwise support judicial review. *Id.* at 658-59. Concluding that this court is barred from reviewing § 315(b) decisions, the panel dismissed for lack of jurisdiction. *Id.* at 659.

C. *Cuozzo*

Subsequent to our decision in *Achates*, the Supreme Court decided *Cuozzo Speed Technologies, LLC v. Lee*, 136 S. Ct. 2131, 195 L. Ed. 2d 423 (2016). In *Cuozzo*, the Court addressed whether § 314(d) bars judicial review of determinations regarding compliance with § 312(a)(3), *i.e.*, whether the petition identified with sufficient 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." *Id.* at 2139-42.

The Supreme Court's analysis of § 314(d) began with a recognition of the "'strong presumption' in favor of judicial review." *Id.* at 2140 (quoting *Mach Mining, LLC v. EEOC*, 135 S. Ct. 1645, 1651, 191 L. Ed. 2d 607 (2015)). The Court

explained that the presumption of judicial review "may be overcome by '"clear and convincing"' indications, drawn from 'specific language,' 'specific legislative history,' and 'inferences of intent drawn from the statutory scheme as a whole,' that Congress intended to bar review." *Id.* (quoting *Block v. Cmty. Nutrition Inst.*, 467 U.S. 340, 349-50, 104 S. Ct. 2450, 81 L. Ed. 2d 270 (1984)).

The Supreme Court held that the presumption in favor of judicial review was overcome regarding whether a petition met the requirements of § 312(a)(3). *Id.* at 2142. The Court considered the dispute about § 312(a)(3)'s particularity requirement to be "an ordinary dispute" over the Director's institution decision. *Id.* at 2139. The Court concluded that § 314(d) "must, at the least, forbid an appeal that attacks a 'determination . . . whether to institute' review by raising this kind of legal question and little more." *Id.* (alteration in original). The Court spoke of "the kind of initial determination at issue here—that there is a 'reasonable likelihood' that the claims are unpatentable on the grounds asserted." *Id.* at 2140 (quoting § 314(a)). The Court held:

> where a patent holder merely challenges the Patent Office's "determin[ation] that the information presented in the petition . . . shows that there is a reasonable likelihood" of success "with respect to at least 1 of the claims challenged," § 314(a), or where a patent holder grounds its claim in a statute closely related to that decision to institute inter partes review, § 314(d) bars judicial review.

Id. at 2142 (alterations in original). The Supreme Court noted that the question of whether a petition was pleaded with particularity amounted to "little more than a challenge to the Patent Office's conclusion, under § 314(a), that the 'information presented in the petition' warranted review." *Id.* In the Court's words, a challenge to the sufficiency of the "information presented in the petition" was a nonappealable "mine-run" claim. *Id.* at 2136, 2142.

The dissent contends that the statutory language of § 314(d) "is absolute and provides no exceptions." Dissenting Op. at 8. The Supreme Court in *Cuozzo* rejected this contention. The Court made clear that its holding was limited; it expressly left open the potential for review, under certain circumstances, of decisions to institute IPR. First, the Court emphasized that its "interpretation applies where the grounds for attacking the decision to institute inter partes review consist of questions that are closely tied to the application and interpretation of statutes related to" the institution decision, emphasizing the "under this section" language of § 314(d) in the citation that follows. 136 S. Ct. at 2141. In stating its holding (quoted above), the Court further tied the "closely related" language to the specific "reasonable likelihood" determination made under § 314(a). *Id.* at 2142. The Court expressly declined to "decide the precise effect of § 314(d) on appeals that implicate constitutional questions, *that depend on other less closely related statutes*, or that present other questions of interpretation that reach, in terms of scope and impact, *well beyond 'this section*.'"[3]

3. The dissent's reliance on *Briscoe v. Bell*, 432 U.S. 404, 97 S. Ct. 2428, 53 L. Ed. 2d 439 (1977), is misplaced. Unlike *Cuozzo, Briscoe* does not address whether a statutory section precluding

Id. at 2141 (emphases added). Second, the Court noted that its holding does not "categorically preclude review of a final decision where a petition fails to give 'sufficient notice' such that there is a due process problem with the entire proceeding." *Id.* Finally, the Court wrote that its holding does not "enable the agency to act outside its statutory limits by, for example, canceling a patent claim for 'indefiniteness under § 112' in inter partes review." *Id.* at 2141-42. "Such 'shenanigans,'" according to the Court, "may be properly reviewable in the context of § 319 and under the Administrative Procedure Act." *Id.* at 2142.

D. The Present Appeal

In 2010, Telefonaktiebolaget LM Ericsson ("Ericsson") filed its complaint for infringement of U.S. Patent Nos. 6,772,215 ("'215 patent"), 6,466,568 ("'568 patent"), and 6,424,625 ("'625 patent") in the United States District Court for the Eastern District of Texas against multiple defendants.[4] The case progressed to a jury trial, where

---

judicial review of determinations "under this section" would apply to determinations made under any other section of that statute or a different statute.

4. Ericsson brought suit against D-Link Systems, Inc., Netgear, Inc., Acer, Inc., Acer America Corp., Gateway, Inc., Dell, Inc., Belkin International, Inc., Toshiba America Information Systems, Inc., and Toshiba Corp. Intel Corp. intervened and Ericsson amended its complaint to add Intel as a defendant. *See Ericsson Inc. v. D-Link Sys., Inc.*, No. 6:10-CV-473, 2013 U.S. Dist. LEXIS 110585, 2013 WL 4046225, at *24 n.1 (E.D. Tex. Aug. 6, 2013), *aff'd in part, vacated in part, rev'd in part*, 773 F.3d 1201 (Fed. Cir. 2014).

the jury found that the defendants infringed the asserted claims. This court reviewed that determination. *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201 (Fed. Cir. 2014). Broadcom Corporation ("Broadcom"), the appellee here, was never a defendant in that litigation.

In 2013, Broadcom filed three separate petitions for IPR of the '215, '568, and '625 patents.[5] When Broadcom filed the IPR petitions, Ericsson owned these patents. During the pendency of the IPRs, Ericsson transferred ownership of the three patents to Wi-Fi One, LLC ("Wi-Fi").

In response to Broadcom's petitions, Wi-Fi argued that the Director was prohibited from instituting review on any of the three petitions. Specifically, Wi-Fi argued that the Director lacked authority to institute IPR under § 315(b) because Broadcom was in privity with defendants that were served with a complaint in the Eastern District of Texas litigation. Wi-Fi alleged that the IPR petitions were therefore time-barred under § 315(b) because Ericsson, the patents' previous owner, had already asserted infringement in district court against defendants that were in privity with petitioner Broadcom more than a year prior to the filing of the petitions.

Wi-Fi filed a motion seeking discovery regarding indemnity agreements, defense agreements, payments, and email or other communications between Broadcom

5. The technical aspects of the patents are not relevant to this opinion.

and the defendants in the Eastern District of Texas litigation. The Board denied both the motion and Wi-Fi's subsequent motion for rehearing. Wi-Fi petitioned this court for a writ of mandamus, which we denied. *In re Telefonaktiebolaget LM Ericsson*, 564 F. App'x 585 (Fed. Cir. 2014).

The Board instituted IPR on the challenged claims, and issued Final Written Decisions finding the challenged claims unpatentable. In the Final Written Decisions, the Board determined that Wi-Fi had not shown that Broadcom was in privity with the defendants in the Eastern District of Texas litigation, and therefore, the IPR petitions were not time-barred under § 315(b). *Broadcom Corp. v. Wi-Fi One, LLC*, No. IPR2013-00601, 2015 Pat. App. LEXIS 1885, 2015 WL 1263008, at *4-5 (P.T.A.B. Mar. 6, 2015) ; *Broadcom Corp. v. Wi-Fi One, LLC*, No. IPR2013-00602, 2015 Pat. App. LEXIS 1886, 2015 WL 1263009, at *4 (P.T.A.B. Mar. 6, 2015); *Broadcom Corp. v. Wi-Fi One, LLC*, No. IPR2013-00636, 2015 Pat. App. LEXIS 1887, 2015 WL 1263010, at *4 (P.T.A.B. Mar. 6, 2015).

Wi-Fi appealed the Final Written Decisions, arguing, among other things, that this court should reverse or vacate the Board's time-bar determinations. A panel of this court rejected Wi-Fi's arguments, reasoning that *Achates* renders the § 315(b) time-bar rulings nonappealable. *See Wi-Fi One, LLC v. Broadcom Corp.*, 837 F.3d 1329, 1333 (Fed. Cir. 2016) ("Wi-Fi does not dispute that *Achates* renders its challenge to the Board's timeliness ruling nonappealable if *Achates* is still good law."). Because the panel concluded that *Cuozzo* did not

implicitly overrule *Achates*, it held Wi-Fi's time-bar challenges to be unreviewable, and affirmed. *Id.* at 1334-35, 1340; *see also Wi-Fi One, LLC v. Broadcom Corp.*, 668 F. App'x 893 (Fed. Cir. 2016) (summarily affirming the time-bar decisions on the '568 and '625 patents).

Wi-Fi petitioned for rehearing en banc. We granted Wi-Fi's petition to consider whether we should overrule *Achates* and hold that the Director's § 315(b) time-bar determinations are subject to judicial review. The question presented for en banc rehearing is:

> Should this court overrule *Achates Reference Publishing, Inc. v. Apple Inc.*, 803 F.3d 652 (Fed. Cir. 2015) and hold that judicial review is available for a patent owner to challenge the PTO's determination that the petitioner satisfied the timeliness requirement of 35 U.S.C. § 315(b) governing the filing of petitions for inter partes review?

Wi-Fi One, LLC v. Broadcom Corp., 851 F.3d 1241, 1241 (Fed. Cir. 2017).

II. Discussion

As with any agency action, we apply the "strong presumption" favoring judicial review of administrative actions, including the Director's IPR institution decisions.[6]

6. Final decisions of the PTO are reviewed according to the standards provided in the Administrative Procedure Act ("APA"). *Cuozzo*, 136 S. Ct. at 2142; *Unwired Planet, LLC v. Google Inc.*,

Cuozzo, 136 S. Ct. at 2140; *see also Gutierrez de Martinez v. Lamagno*, 515 U.S. 417, 424, 115 S. Ct. 2227, 132 L. Ed. 2d 375 (1995) ("[F]ederal judges traditionally proceed from the 'strong presumption that Congress intends judicial review.'"); *Bowen v. Mich. Acad. of Family Physicians*, 476 U.S. 667, 670, 106 S. Ct. 2133, 90 L. Ed. 2d 623 (1986); *United States v. Nourse*, 34 U.S. (9 Pet.) 8, 28-29, 9 L. Ed. 31 (1835). Accordingly, if a statute is "reasonably susceptible" to an interpretation allowing judicial review, we must adopt such an interpretation. *Kucana v. Holder*, 558 U.S. 233, 251, 130 S. Ct. 827, 175 L. Ed. 2d 694 (2010); *Gutierrez de Martinez*, 515 U.S. at 434.

In view of this strong presumption, we will abdicate judicial review only when Congress provides a "clear and convincing" indication that it intends to prohibit review. *Cuozzo*, 136 S. Ct. at 2140; *see Lindahl v. Office of Pers. Mgmt.*, 470 U.S. 768, 778, 105 S. Ct. 1620, 84 L. Ed. 2d 674 (1985); *Block*, 467 U.S. at 349-50; *Return Mail, Inc. v. U.S. Postal Serv.*, 868 F.3d 1350, 1357 (Fed. Cir. 2017).

We find no clear and convincing indication in the specific statutory language in the AIA, the specific legislative history of the AIA, or the statutory scheme as a whole that demonstrates Congress's intent to bar judicial review of § 315(b) time-bar determinations. *See Cuozzo*, 136 S. Ct. at 2140. The parties have not cited, nor are we

---

841 F.3d 1376, 1379 (Fed. Cir. 2016). And 28 U.S.C. § 1295(a)(4)(A) provides this court with exclusive jurisdiction over an appeal from a decision of "the Patent Trial and Appeal Board of the United States Patent and Trademark Office with respect to . . . inter partes review under title 35."

aware of, any specific legislative history that clearly and convincingly indicates congressional intent to bar judicial review of § 315(b) time-bar determinations. We review the statutory language and the statutory scheme in turn.

Starting with the statutory language, § 314(d) provides that "[t]he determination by the Director whether to institute an inter partes review *under this section* shall be final and nonappealable." (emphasis added). The natural reading of the statute limits the reach of § 314(d) to the determination by the Director whether to institute IPR as set forth in § 314. Subsection (a) of § 314—the only subsection addressing substantive issues that are part of the Director's determination "under this section"—reads:

> **(a) Threshold**.--The Director may not authorize an inter partes review to be instituted unless the Director determines that the information present in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.

Subsection (a) does only two things: it identifies a threshold requirement for institution, and as *Cuozzo* recognized, it grants the Director discretion not to institute even when the threshold is met. 136 S. Ct. at 2140 ("[T]he agency's decision to deny a petition is a matter committed to the Patent Office's discretion."). It does not address any other issue relevant to an institution determination. The language of § 314(a) defines the

threshold in terms of determinations that are focused on the patentability merits of particular claims. This determination is only preliminary, aimed just at what is reasonably likely to be decided when patentability is fully addressed, should an IPR be instituted. *See Cuozzo*, 136 S. Ct. at 2140. In referring to the preliminary patentability determination, the Court characterized the Director's discretion regarding institution as being "akin to decisions which, in other contexts, we have held to be unreviewable." *Id.*[7]

In contrast, § 315(b) controls the Director's authority to institute IPR that is unrelated to the Director's preliminary patentability assessment or the Director's discretion not to initiate an IPR even if the threshold "reasonable likelihood" is present. Section 315(b) reads:

> **(b) Patent Owner's Action**. An inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent. The time limitation set forth in the

7. Examples include an agency's discretionary decision *not* to initiate a proceeding, *Cuozzo*, 136 S. Ct. at 2140, a grand jury's determination of probable cause, *id.*, and a court's denial of summary judgment, *see Ortiz v. Jordan*, 562 U.S. 180, 183-84, 131 S. Ct. 884, 178 L. Ed. 2d 703 (2011); *Switz. Cheese Ass'n, Inc. v. E. Horne's Market, Inc.*, 385 U.S. 23, 25, 87 S. Ct. 193, 17 L. Ed. 2d 23 (1966); *Function Media, LLC v. Google Inc.*, 708 F.3d 1310, 1322 (Fed. Cir. 2013).

> preceding sentence shall not apply to a request for joinder under subsection (c).

The dissent states that § 315(b) "does not go to the merits of the petition." Dissenting Op. at 5. This is correct. The time-bar decision is nowhere referred to in § 314(a). Additionally, the time bar is not focused on particular claims, whereas § 314(a)'s threshold determination is; the time bar involves only the time of service of a complaint alleging infringement "of the patent." Nothing in § 315(b) sets up a two-stage process for addressing the time bar: the time-bar determination may be decided fully and finally at the institution stage.

The time-bar determination, therefore, is not akin to either the non-initiation or preliminary-only merits determinations for which unreviewability is common in the law, in the latter case because the closely related final merits determination is reviewable. *See supra* note 7. Because § 314(a) does not mention this distinct issue, the PTO's position that the time-bar determination is unreviewable runs counter to the principle, as reflected in *Cuozzo*, that favors reading the statute to comport with, not depart from, familiar approaches to comparable issues.[8]

---

8. Although § 314(d) uses language somewhat different from the language of precursor provisions, there is no reason to infer a deliberate broadening of the scope of nonreviewability—certainly not a clear and convincing reason. Indeed, the Court in *Cuozzo* stressed the similarity of § 314(d) to its precursors, without mentioning differences. 136 S. Ct. at 2140.

This reading is consistent with the overall statutory scheme as understood through the lens of *Cuozzo*'s directive to examine the statutory scheme in terms of what is "closely related" to the § 314(a) determination. The Supreme Court in *Cuozzo* stated that "§ 314(d) bars judicial review" both when "a patent holder merely challenged the Patent Office's 'determin[ation] that the information presented in the petition . . . shows that there is a reasonable likelihood' of success 'with respect to at least 1 of the claims challenged,' § 314(a)" and, in addition, when "a patent holder grounds its claim in a statute closely related to *that* decision to institute inter partes review." 136 S. Ct. at 2142 (alterations in original) (emphasis added). The statutory scheme demonstrates that several sections of the AIA, such as the preliminary procedural requirements stated in §§ 311-13, relate more closely to the determination by the Director. The "reasonable likelihood" determination under § 314(a) is clearly about whether "the claims are unpatentable on the grounds asserted." *Id.* at 2140. The Court's statement of its holding thus strongly points toward unreviewability being limited to the Director's determinations closely related to the preliminary patentability determination or the exercise of discretion not to institute.

Whether a petitioner has complied with § 315(b) is not such a determination, as it has nothing to do with the patentability merits or discretion not to institute. The time-bar provision contrasts with many of the preliminary procedural requirements stated in §§ 311-13, which relate to the Director's ability to make an informed preliminary patentability determination pursuant to § 314(a). Specifically, § 315(b) time-bar determinations

are fundamentally different from those evaluating the satisfaction of § 312(a)(3)'s requirements, at issue in *Cuozzo*. Section 312(a)(3) demands particularity as to "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." That requirement is closely tied to the Director's determination of a "reasonable likelihood" of unpatentability of at least one claim. The time bar is not.

The issue that Wi-Fi appeals also is not "some minor statutory technicality." *Cuozzo*, 136 S. Ct. at 2140. The time bar is not merely about preliminary procedural requirements that may be corrected if they fail to reflect real-world facts, but about real-world facts that limit the agency's authority to act under the IPR scheme.[9] The timely filing of a petition under § 315(b) is a condition

9. For instance, the dissent conflates "real party in interest" as used in § 312(a)(2) and § 315(b), and claims that "§ 312(a)(2) is part and parcel of the timeliness inquiry under § 315." Dissenting Op. at 10. This is incorrect. For example, if a petition fails to identify all real parties in interest under § 312(a)(2), the Director can, and does, allow the petitioner to add a real party in interest. *See, e.g., Intel Corp. v. Alacritech, Inc.*, No. IPR2017-01392, Paper No. 11, 2017 Pat. App. Filings LEXIS 3724, at *29 (P.T.A.B. Nov. 30, 2017); *Elekta, Inc. v. Varian Medical Sys., Inc.*, No. IPR2015-01401, 2015 Pat. App. Filings LEXIS 12841, 2015 WL 9898990, at *4, *6 (P.T.A.B. Dec. 31, 2015). For this reason, the PTO has established procedures to rectify noncompliance of § 312(a)(2). *Lumentum Holdings, Inc. v. Capella Photonics, Inc.*, No. IPR2015-00739, 2016 Pat. App. LEXIS 2044, 2016 WL 2736005, at *3 (P.T.A.B. Mar. 4, 2016) (precedential); 37 C.F.R. §§ 42.8(a)(3), 42.8(b)(1). In contrast, if a petition is not filed within a year after a real party in interest, or privy of the petitioner is served with a complaint, it is time-barred by § 315(b), and the petition cannot be rectified and in no event can IPR be instituted.

precedent to the Director's authority to act. It sets limits on the Director's statutory authority to institute, balancing various public interests. And like § 315 as a whole, it governs the relation of IPRs to other proceedings or actions, including actions taken in district court.

Thus, the statutory scheme as a whole demonstrates that § 315 is not "closely related" to the institution decision addressed in § 314(a), and it therefore is not subject to § 314(d)'s bar on judicial review. *Cuozzo*, 136 S. Ct. at 2142; *cf. Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1049-51 (Fed. Cir. 2017) (holding that a similar nonappealability provision with respect to post-grant review, 35 U.S.C. § 324(e), does not preclude our review of an estoppel determination under 35 U.S.C. § 325(e)(1)). Accordingly, our review of the statutory language and the statutory scheme reveals no clear and convincing indication of Congress's intent to bar judicial review of § 315(b) time-bar determinations.

Enforcing statutory limits on an agency's authority to act is precisely the type of issue that courts have historically reviewed. *See, e.g., City of Arlington v. F.C.C.*, 569 U.S. 290, 307, 133 S. Ct. 1863, 185 L. Ed. 2d 941 (2013); *Bowen*, 476 U.S. at 671; *Leedom v. Kyne*, 358 U.S. 184, 190, 79 S. Ct. 180, 3 L. Ed. 2d 210 (1958). As a statutory limit on the Director's ability to institute IPR, the § 315(b) time bar is such an issue. We hold that time-bar determinations under § 315(b) are reviewable by this court.

III. Conclusion

The Supreme Court in *Cuozzo* instructed that the "strong presumption" favoring judicial review "may be overcome by '"clear and convincing"' indications, drawn from 'specific language,' 'specific legislative history,' and 'inferences of intent drawn from the statutory scheme as a whole,' that Congress intended to bar review." 136 S. Ct. at 2140. Finding no such clear and convincing indications, we hold that the Director's time-bar determinations under § 315(b) are not exempt from judicial review, and overrule *Achates*'s contrary conclusion. We do not decide today whether all disputes arising from §§ 311-14 are final and nonappealable. Our holding applies only to the appealability of § 315(b) time-bar determinations. We remand for the panel to consider in the first instance the merits of Wi-Fi's time-bar appeal.

REMANDED TO THE MERITS PANEL

Appendix D

O'MALLEY, *Circuit Judge*, concurring.

I agree with much of the majority's thoughtful reasoning, and I certainly agree with its conclusion that time-bar determinations under 35 U.S.C. § 315(b) are not exempt from judicial review. I write separately because, in my view, the question presented for en banc rehearing in this case is much simpler than the majority's analysis implies; it turns on the distinction between the Director's authority to exercise discretion when reviewing the adequacy of a petition to institute an inter partes review ("IPR") and authority to undertake such a review in the first instance. If the United States Patent and Trademark Office ("PTO") exceeds its statutory authority by instituting an IPR proceeding under circumstances contrary to the language of § 315(b), our court, sitting in its proper role as an appellate court, should review those determinations. Indeed, we should address those decisions in order to give effect to the congressionally imposed statutory limitations on the PTO's authority to institute IPRs.

As we explained in *Intellectual Ventures II LLC v. JPMorgan Chase & Co.*, 781 F.3d 1372 (Fed. Cir. 2015), when assessing whether we may exercise jurisdiction over an appeal from institution decisions regarding covered business method patents ("CBMs"), Congress consistently differentiated between petitions to institute and the act of institution in the AIA. *Id.* at 1376. The former is what a party seeking to challenge a patent in a CBM proceeding, a derivation proceeding, a post-grant proceeding, or an IPR files—and of which the PTO reviews the sufficiency—

and the latter is what the Director is authorized to do. *Id.* Because only the Director or her delegees may "institute" a proceeding, § 315(b)'s bar on institution is necessarily directed to the PTO, not those filing a petition to institute. *See id.*

The PTO's own regulations support this reading of § 315(b); they clearly consider the possibility that the Board might mistakenly take actions in excess of its statutory jurisdiction. For example, Part 42 of Title 37 in the Code of Federal Regulations "governs proceedings before the Patent Trial and Appeal Board." 37 C.F.R. § 42.1(a) (2016). In addressing "Jurisdiction" for these proceedings, Part 42 expressly requires that "[a] petition to institute a trial must be filed with the Board consistent with any time period required by statute." *Id.* § 42.3(b); *see also id.* § 42.2 (identifying IPR proceedings as falling within the definition of "trial"). A straightforward reading of these regulations indicates that the PTO believed, at least at the time it issued those regulations, that it would not have statutory jurisdiction or authority to institute proceedings—including IPRs—in response to petitions to institute filed *outside* the time limit set by statute for such filings, regardless of the adequacy of those petitions.

Section 314(d)'s bar on appellate review is directed to the Director's assessment of the substantive adequacy of a timely filed petition. Because § 315(b)'s time bar has nothing to do with the substantive adequacy of the petition and is directed, instead, to the Director's authority to act, § 314(d) does not apply to decisions under that provision.

This conclusion not only is consistent with, but, in my view, is dictated by the Supreme Court's reasoning in *Cuozzo Speed Technologies, LLC v. Lee*, 136 S. Ct. 2131, 195 L. Ed. 2d 423 (2016). There, the Court considered whether § 314(d) bars review of determinations by the PTO that a petition for IPR complies, at least implicitly, with the "particularity" requirement set forth in § 312(a)(3). 136 S. Ct. at 2138-39. The majority here correctly notes that the Court in *Cuozzo* "recognize[d] the 'strong presumption' in favor of judicial review that we apply when we interpret statutes, including statutes that may limit or preclude review." *Id.* at 2140 (quoting *Mach Mining, LLC v. E.E.O.C.*, 135 S. Ct. 1645, 1650-51, 191 L. Ed. 2d 607 (2015) (internal quotation marks omitted)). The Court observed, however, that this presumption could be overcome by "clear and convincing" indications, drawn from "specific language," "specific legislative history," and "inferences of intent drawn from the statutory scheme as a whole," that Congress intended to bar review. *Id.* (quoting *Block v. Cmty. Nutrition Inst.*, 467 U.S. 340, 349-50, 104 S. Ct. 2450, 81 L. Ed. 2d 270 (1984)).

In deciding that the presumption in favor of judicial review was overcome in that case, the Court analyzed and distinguished *Lindahl v. Office of Personnel Management*, 470 U.S. 768, 105 S. Ct. 1620, 84 L. Ed. 2d 674 (1985). *Lindahl* involved the question of whether courts can review disability determinations for federal employees made by a federal agency. 470 U.S. at 771. According to the majority in *Cuozzo, Lindahl* involved the construction of a statute that (1) directed an agency to "determine questions of liability;" (2) made those

determinations "final," "conclusive," and "not subject to review;" and (3) barred courts from revisiting the "factual underpinnings of . . . disability determinations." 136 S. Ct. at 2141 (quoting *Lindahl*, 470 U.S. at 771, 791). The Court observed, however, that the same statute permitted courts to consider claims alleging, for example, that the agency "substantial[ly] depart[ed] from important procedural rights." *Id.* (quoting *Lindahl*, 470 U.S. at 791).

The *Cuozzo* majority characterized *Lindahl*'s interpretation of its particular statute as "preserv[ing] the agency's primacy over its core statutory function in accord with Congress' intent," and declared that its "interpretation of the 'No Appeal' provision [in the AIA] has the same effect." *Id.* This is because Congress, in enacting the AIA, recognized that the "core statutory function" of the PTO is to make patentability determinations, and chose to insulate from judicial review preliminary determinations by the PTO as to whether IPR petitions "show[] that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a); *see Cuozzo*, 136 S. Ct. at 2141 ("The text of the 'No Appeal' provision, along with its place in the overall statutory scheme, its role alongside the Administrative Procedure Act, the prior interpretation of similar patent statutes, and Congress' purpose in crafting IPR, all point in favor of precluding review of the [PTO]'s *institution decisions*." (emphasis added)). For this reason, the Court found that Cuozzo's claim that an IPR petition "was not pleaded 'with particularity' under § 312 [wa]s little more than a challenge to the [PTO]'s conclusion, under § 314(a),

that the 'information presented in the petition' warranted review." *Id.* at 2142 (citation omitted).

Section 315(b)'s time bar falls squarely on the other side of *Cuozzo*'s appealability ledger, for it is not "closely tied to the application and interpretation of statutes related to the [PTO]'s decision to initiate [IPR]." *Id.* at 2141. Section 315(b) does not contemplate that the PTO render a decision related to patentability—it simply places a limit on the PTO's authority to institute IPRs that is based on a comparison of two or more dates. And it does so with the unambiguous phrase "[a]n [IPR] *may not be instituted* if . . . ." 35 U.S.C. § 315(b) (emphasis added). In contrast with the Director's § 314(a) determination, which involves the preliminary application of patentability principles, no such decision is contemplated in § 315(b). *See N.L.R.B. v. SW Gen., Inc.*, 137 S. Ct. 929, 940, 197 L. Ed. 2d 263 (2017) (describing a clause that "speaks to who 'may not' be an acting officer" as an imperative).

Put another way, § 315(b) codifies one of the "important procedural rights" that Congress chose to afford patent owners in the IPR context. *Lindahl*, 470 U.S. at 791. Allowing judicial review of erroneous determinations by the PTO as to whether the § 315(b) time bar applies would prevent the agency from "act[ing] outside its statutory limits," one of the categories of "shenanigans" envisioned by the majority in *Cuozzo*. 136 S. Ct. at 2141-42.

A determination by the PTO whether an IPR petition is time-barred under § 315(b) is entirely unrelated to the agency's "core statutory function" of determining whether

claims are or are not patentable. *Id.* at 2141 (quoting *Lindahl*, 470 U.S. at 791). Unlike the threshold merits inquiry subsumed within § 314(a), no technical expertise is required to calculate whether a petition is "filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent." 35 U.S.C. § 315(b).

Congress is well versed in establishing statutory time bars. Congressional discretion should control the application of such time bars, not that of the Director of the PTO. I do not see the need to say more.

HUGHES, *Circuit Judge*, joined by LOURIE, BRYSON, and DYK, *Circuit Judges*, dissenting.

Congress barred judicial review of the Patent and Trademark Office (PTO) Director's decision to institute inter partes review (IPR) in 35 U.S.C. § 314(d). The majority opinion, however, limits this prohibition to the Director's assessment of the criteria for instituting review set forth in § 314. Accordingly, this court finds that § 314(d) does not apply to other preliminary determinations, such as whether the petition was timely filed. I do not agree with such a narrow reading of the statute, which not only contradicts the statutory language, but is also contrary to the Supreme Court's construction of that language in *Cuozzo Speed Technologies, LLC v. Lee*, 136 S. Ct. 2131, 195 L. Ed. 2d 423 (2016).

In *Cuozzo*, the Supreme Court held that § 314(d) prohibited judicial review of "questions that are closely tied to the application and interpretation of statutes related to the Patent Office's decision to initiate inter partes review," including questions of compliance with 35 U.S.C. § 312(a)(3)'s petition requirements. 136 S. Ct. at 2141. 35 U.S.C. § 315(b), which describes when an IPR may be "instituted," is even more closely related to institution decisions than § 312(a)(3)—which does not use the word "institute." In my view, *Cuozzo* confirms that § 314(d) is not limited to the merits of the petition, but also bars judicial review of closely related issues such as the petition's timeliness. Because the majority opinion is inconsistent with *Cuozzo* and the plain meaning of § 314(d), I respectfully dissent.

Appendix D

I

Our inquiry should start and end with the words of the statute. The APA exempts agency actions from judicial review "to the extent that statutes preclude judicial review." 5 U.S.C. § 701. There is a "strong presumption that Congress intends judicial review of administrative action" and any contrary intent must be clear and convincing. *Bowen v. Mich. Acad. of Family Physicians*, 476 U.S. 667, 670-71, 106 S. Ct. 2133, 90 L. Ed. 2d 623 (1986). This presumption, of course, is not insurmountable. Congress can enact specific statutes to bar review, or the legislative history might manifest Congress's intent to do so. *Id.* at 673. Even in the absence of an express prohibition, the overall statutory structure might indicate that Congress sought to prohibit judicial review. *See United States v. Fausto*, 484 U.S. 439, 447-48, 108 S. Ct. 668, 98 L. Ed. 2d 830 (1988); *Block v. Cmty. Nutrition Inst.*, 467 U.S. 340, 352, 104 S. Ct. 2450, 81 L. Ed. 2d 270 (1984).

Congress's intent to prohibit judicial review of the Board's IPR institution decision is clear and unmistakable. Section 314(d) states "[t]he determination by the Director whether to institute an inter partes review under this section shall be final and *nonappealable*." (emphasis added.) The statute *calls out* a specific agency determination, and expressly *prohibits* courts from reviewing that decision. "Absent persuasive indications to the contrary, we presume Congress says what it means and means what it says." *Simmons v. Himmelreich*, 136 S. Ct. 1843, 1848, 195 L. Ed. 2d 106 (2016).

Cuozzo confirms this interpretation of § 314(d). There, the Supreme Court found that clear and convincing indications overcame the presumption in favor of judicial reviewability with respect to IPR institution decisions. *Cuozzo*, 136 S. Ct. at 2140. To reach this conclusion, the Court looked to the plain language of the statute, and stressed that whether the "Patent Office unlawfully initiated its agency review is not appealable" because "*that is what § 314(d) says*." *Id.* at 2139 (emphasis added). *Cuozzo* also foreclosed any notion that § 314(d) only applies to the question of whether the petition raises a reasonable likelihood of invalidity. *See id.* at 2141. Instead, the statute prohibits judicial review of "questions that are closely tied to the application and interpretation of statutes related to the Patent Office's decision to initiate inter partes review." *Id.*

The petition's timeliness under § 315(b) is part of the Board's institution decision, and is therefore barred from judicial review. Section 315(b) states that "[a]n inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent." The question of timeliness does not go to the merits of the petition, nor does it become part of the PTO's final determination. Instead, the PTO evaluates timeliness within the context of the PTO's preliminary determination of whether to institute IPR at all. Accordingly, timeliness under § 315(b) is plainly a question "closely tied" to the Director's decision to institute. Indeed, it is a specific requirement for "institution." Moreover, although Justice

Alito disagreed with the ultimate result in *Cuozzo*, even he recognized that "the petition's timeliness, no less than the particularity of its allegations, is 'closely tied to the application and interpretation of statutes related to the Patent Office's decision to initiate . . . review,' and the Court says that such questions are unreviewable." *Id.* at 2155 (Alito, J., concurring in part and dissenting in part) (alteration in original).

This court, however, confines the scope of the judicial review bar in § 314(d) to "the determination by the Director whether to institute IPR as set forth in § 314," which establishes the reasonable likelihood standard for instituting review. Maj. Op. at 15. But again, *Cuozzo* already held that § 314(d) is not limited to the Director's reasonable likelihood determination. 136 S. Ct. at 2141. The Supreme Court rejected the notion that the presumption of judicial review permits courts to review "any issue bearing on the Patent Office's preliminary decision to institute inter partes review." *Id.* Rather, the Supreme Court explained that "Congress has told the *Patent Office* to determine whether inter partes review should proceed, and it has made the agency's decision 'final' and 'nonappealable.' § 314(d). Our conclusion that courts may not revisit this initial determination gives effect to this statutory command." *Id.*

To sidestep this binding precedent, the majority states that § 315(b) is appealable because "the time-bar determination may be decided fully and finally at the institution stage." Maj. Op. at 17. And the majority suggests that § 314(d) is limited to "non-initiation or

preliminary-only merits determinations for which unreviewability is common in the law." *Id.* But if § 314(d) only applies to issues that are incorporated into the final written decision, then the appeal bar essentially becomes a prohibition on interlocutory appeal. The Supreme Court expressly rejected this interpretation in *Cuozzo*. 136 S. Ct. at 2140. As the Court explained:

> The dissent, like the panel dissent in the Court of Appeals, would limit the scope of the "No Appeal" provision to *interlocutory* appeals, leaving a court free to review the initial decision to institute review in the context of the agency's final decision. We cannot accept this interpretation. It reads into the provision a limitation (to interlocutory decisions) that the language nowhere mentions and that is unnecessary. The Administrative Procedure Act already limits review to final agency decisions. The Patent Office's decision to initiate inter partes review is "preliminary," not "final." And the agency's decision to deny a petition is a matter committed to the Patent Office's discretion. So, read as limited to such preliminary and discretionary decisions, the "No Appeal" provision would seem superfluous.

Id. (citations omitted).

The majority concludes that the appeal bar does not apply to "limits on the Director's statutory authority to institute," Maj Op. at 20. But this position was clearly

rejected in *Cuozzo*. 136 S. Ct. at 2139-40. Even setting aside *Cuozzo*, the Supreme Court also rejected this type of statutory interpretation in *Briscoe v. Bell*, 432 U.S. 404, 97 S. Ct. 2428, 53 L. Ed. 2d 439 (1977).

Briscoe involved the Voting Rights Act, which allowed the Attorney General to determine whether "the preconditions for application of the Act to particular jurisdictions are met." *Id.* at 407. The statute provided that "[a] determination or certification of the Attorney General or of the Director of the Census under this section . . . shall not be reviewable in any court . . . ." *Id.* at 408. The D.C. Circuit explained that "[i]t is . . . apparent that even where the intent of Congress was to preclude judicial review, a limited jurisdiction exists in the court to review actions which on their face are plainly in excess of statutory authority." *Id.* (quoting *Briscoe v. Levi*, 535 F.2d 1259, 1265, 175 U.S. App. D.C. 297 (D.C. Cir. 1976)). The D.C. Circuit further concluded that this statute barred judicial review of substantive issues like "the actual computations made by the Director of the Census," but not "whether the Director acted 'consistent with the apparent meaning of the statute.'" *Id.* at 408-09 (quoting *Briscoe*, 535 F.2d at 1265). The Supreme Court reversed, and found that "[s]ection 4(b) of the Voting Rights Act could hardly prohibit judicial review in more explicit terms." *Id.* at 409. The Court stressed that "[t]he language is absolute on its face and would appear to admit of no exceptions." *Id.*

Section 314(d) similarly prohibits review of "the determination by the Director whether to institute an inter partes review." Like the statute in *Briscoe*, the language

is absolute and provides no exceptions. Nevertheless, the majority concludes that "[t]he timely filing of a petition under § 315(b) is a *condition precedent* to the Director's authority to act." Maj. Op. at 20 (emphasis added). Like the D.C. Circuit in *Briscoe*, the majority attempts to distinguish between "a decision of the Board made within its jurisdiction" and "an order of the Board made in excess of its delegated powers." *Briscoe*, 535 F.2d at 1264. The Supreme Court rejected this reasoning, and we should too.

Nor does the phrase "under this section" in § 314(d) limit the bar on judicial review to only a subset of requirements for institution. This court's majority opinion finds that § 314(d) does not bar review of timeliness because the phrase "under this section" "*limits* the reach of § 314(d) to the determination by the Director whether to institute IPR *as set forth* in § 314." Maj. Op. at 15 (emphasis added). But to be clear, the phrase "under this section" simply refers to the fact that inter partes review is instituted under § 314. The phrase does not limit the bar on judicial review to the Director's assessment of the criteria under § 314. Indeed, *Cuozzo* foreclosed this reading by holding that the bar on judicial review extends to the Director's assessment of the requirements under § 312, which is plainly a different statutory section than § 314. 136 S. Ct. at 2141.

II

The plain language of § 314(d) should lead us to conclude that Congress intended to preclude judicial review of whether IPR petitions are timely filed. To the

extent the statute is unclear, the history of the AIA dispels any doubt that § 314(d) bars judicial review of issues like timeliness and the identity of real parties in interest.

The difference between § 314(d) and the bar on judicial review for reexaminations confirms that Congress intended to broadly prohibit review of IPR institution decisions. "[A] change in phraseology" in the statute "creates a presumption of a change in intent." *Crawford v. Burke*, 195 U.S. 176, 190, 25 S. Ct. 9, 49 L. Ed. 147 (1904). And it is unlikely that Congress would enact a statutory provision using different language "without thereby intending a change of meaning." *Id.*; *see also Merrill Lynch, Pierce, Fenner & Smith Inc. v. Manning*, 136 S. Ct. 1562, 1578, 194 L. Ed. 2d 671 (2016) (Thomas, J., concurring) ("[W]hen Congress enacts a statute that uses different language from a prior statute, we normally presume that Congress did so to convey a different meaning.").

Even before the AIA, third-parties could seek administrative patent cancellation through reexamination. When the PTO receives a request for reexamination, the Director must determine whether the request raises a substantial new question of patentability. And 35 U.S.C. § 303(c) provides that, "[a] determination by the Director . . . that no substantial new question of patentability has been raised will be final and nonappealable."[1] Accordingly,

1. This was similarly true under the old 35 U.S.C. § 312(c) (2006), governing inter partes reexamination, which barred appeal of "[a] determination by the Director pursuant to subsection (a)," *i.e.*, the determination that "a substantial new question of

the statute specifically bars review of the narrow issue of whether the request raises a "substantial new question of patentability." *Id.* The statute *does not* bar review of the entire decision to initiate reexamination.

In stark contrast, Congress used markedly different language for inter partes review and post-grant review proceedings. Instead of barring review of the Director's determination of a specific issue, § 314(d) and 35 U.S.C. § 324(e) broadly prohibit review of the Director's "determination . . . *whether to institute*" review. Accordingly, these statutes identify a *specific action* by the Director, not tied to the resolution of a specific issue such as substantial new question of patentability. Such linguistic differences are particularly significant because the AIA retained § 303(c), with its different language, with respect to reexaminations.

III

Even if we followed the majority's approach and tried to parse out which requirements for institution are barred from judicial review under § 314, it still makes no sense to distinguish § 315 from §§ 311-314. The assumption that § 315 is less closely related to § 314 than the institution criteria of §§ 311-313, *see* Maj. Op. at 18-19, is simply incorrect. For example, § 312(a)(1) and § 312(a)(2) relate to the payment of fees and identification of real parties in interest, which the majority agrees cannot be appealed.

---

patentability affecting any claim of the patent concerned is raised by the request." 35 U.S.C. § 312(a) (2006).

These issues, however, bear the same relation to the institution decision as the inquiry under § 315.

Under § 315(b), the Director cannot institute review if the petition was filed more than one year after the petitioner or its *real party in interest* was served with a complaint alleging infringement. And petitioners have the onus to identify all real parties in interest under § 312(a)(2), which states that a petition "may be considered only if . . . the petition identifies all real parties in interest." Based on the petitioner's disclosure, the Director can assess whether any of the petitioner's real parties in interest was served with a complaint more than one year before the petition. Thus, § 312(a)(2) is part and parcel of the timeliness inquiry under § 315.

The majority tries to distinguish between the real party in interest inquiry under § 312(a)(2) and § 315(b). Specifically, the majority notes that "if a petition fails to identify all real parties in interest under § 312(a)(2), the Director can, and does, allow the petitioner to add a real party in interest." Maj. Op. at 22 n.11. By contrast, a petition that is time-barred under § 315 cannot be rectified. *Id.*

To illustrate why this distinction is flawed, suppose that a patent owner argues that an unidentified third-party, who has not been sued for infringement, is a real party in interest to the petition. The Director disagrees with the patent owner and institutes review. No one disputes that the Director's decision on real party in interest is unreviewable in this scenario. Now suppose the

Director makes the *exact same determination*, but with respect to a third-party who was sued more than one year before the petition was filed. Even though the Director is making the same factual inquiry, his determination now becomes reviewable because it implicates the time-bar. This result is illogical. The same inquiry does not become more or less "closely related" to the institution determination simply because the results of that inquiry have different consequences.

The facts of this appeal underscore why timeliness under § 315 is as closely related to the institution decision as the requirements under § 312. Wi-Fi One does not contend that Broadcom itself was served with a complaint more than one year before its petition. Rather, Wi-Fi One asserts that various defendants in a 2010 Texas lawsuit were unidentified real parties in interest to Broadcom's petition. On remand, the panel must determine whether the Board properly resolved which parties constitute a real party in interest under § 312(a)(2). Even Wi-Fi One recognizes that this inquiry is highly fact dependent, as it sought broad-ranging discovery into agreements, payments, and e-mail communications in the proceedings below. But giving the Board wide discretion on such preliminary determinations is what enables IPRs to function as an efficient method of resolving validity issues. Congress would not have "giv[en] the Patent Office significant power to revisit and revise earlier patent grants . . . if it had thought that the agency's final decision could be unwound under some minor statutory technicality related to its preliminary decision to institute inter partes review." *Cuozzo*, 136 S. Ct. at 2139-40.

Vacating the Board's invalidity decision on the basis of threshold questions like timeliness or real parties in interest will squander the time and resources spent adjudicating the actual merits of the petition. This is counter to the AIA's purpose of "providing quick and cost effective alternatives to litigation." H.R. Rep. No. 112-98, pt. 1, at 48 (2011). Congress recognized this issue, so it prohibited this court from reviewing the Board's institution decision. It is not our prerogative to second-guess that policy decision, nor should we rely on tenuous statutory interpretations to undermine it.

IV

Because we do not have jurisdiction to review the Board's determination that Broadcom's petition was timely filed, I respectfully dissent.

APPENDIX E — OPINION OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, DATED SEPTEMBER 16, 2016

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

2015-1944

WI-FI ONE, LLC,

Appellant,

v.

BROADCOM CORPORATION,

Appellee.

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2013-00601.

September 16, 2016, Decided

Before DYK, BRYSON, and REYNA, *Circuit Judges*.

Opinion for the court filed by *Circuit Judge* BRYSON.

Concurring opinion filed by *Circuit Judge* REYNA.

BRYSON, *Circuit Judge*.

Appendix E

This is an appeal from a decision of the Patent Trial and Appeal Board in an inter partes review. The Board held various claims of a patent owned by Wi-Fi One, LLC ("Wi-Fi"), to be anticipated. We affirm.

I

A

The patent at issue in this case, U.S. Patent No. 6,772,215 ("the '215 patent"), is directed to a method for improving the efficiency by which messages are sent from a receiver to a sender in a telecommunications system to advise the sender that errors have occurred in a particular message.

In the technology described in the patent, data is transmitted in discrete packets known as Protocol Data Units ("PDUs"). The useful data or "payload" in those packets is carried in what are called user data PDUs ("D-PDUs"). Each D-PDU contains a sequence number that uniquely identifies that packet. The sequence number allows the receiving computer to determine when it either has received packets out of order or has failed to receive particular packets at all, so that the receiver can correctly combine the packets in the proper order or direct the sender to retransmit particular packets as necessary.

The receiver uses a different type of packet, a status PDU ("S-PDU"), to notify the sender of the D-PDUs it failed to receive. The '215 patent is concerned with organizing the information contained in S-PDUs efficiently

so as to minimize the size of the S-PDUs, thus conserving bandwidth.

The patent discloses a number of methods for encoding the sequence numbers of missing packets in S-PDUs. Some of those methods use lists that indicate which packets are missing by displaying the ranges of the sequence numbers of the missing packets. Other methods are based on bitmaps that use binary numbers to report on the status of a fixed number of packets relative to a starting point.

Depending on how many packets fail to be properly delivered and the particular sequence numbers of the errant packets, different methods can be more or less efficient for encoding particular numbers and ranges of errors. In order to leverage the benefits of the different encoding methods, the patent discloses an S-PDU that can combine multiple message types in an arbitrary order, with "no rule on the number of messages or the type of messages that can be included in the S-PDU." '215 patent, col. 7, ll. 55-57. Using that technology, S-PDUs can be constructed with a combination of the encoding types best suited for the particular errors being encoded, so that the S-PDU can be more compact than an S-PDU that uses a single encoding type.

B

In 2013, Broadcom petitioned for inter partes review of the '215 patent, challenging numerous claims. Prior to the institution decision, Wi-Fi argued that Broadcom was

barred from seeking review of the patent. Wi-Fi argued that Broadcom was in privity with certain entities that were involved in parallel district court litigation involving the '215 patent, and that because those entities would be time-barred from seeking inter partes review of the '215 patent, Broadcom was time-barred as well. *See* 35 U.S.C. § 315(b).

Wi-Fi filed a motion seeking discovery designed to support its argument, but after briefing the Board denied the motion. It found that Wi-Fi "has not provided evidence to show that there is more than a mere possibility that the sought-after discovery even exists" or "that the sought-after discovery has more than a mere possibility of producing useful evidence on the crucial privity factor"—control of the district court litigation by Broadcom in a way that would foreclose it from seeking inter partes review.

After the Board denied Wi-Fi›s petition for rehearing, Wi-Fi petitioned this court for a writ of mandamus. This court denied the petition. *In re Telefonaktiebolaget LM Ericsson*, 564 F. App'x 585 (Fed. Cir. 2014).

The Board instituted inter partes review of the '215 patent, finding that there was a reasonable likelihood that the challenged claims were anticipated by U.S. Patent No. 6,581,176 to Seo. The Board declined to institute review based on another reference because it found that reference would be redundant in light of Seo.

Seo teaches improvements to what are known as negative acknowledgement ("NAK") frames. NAK frames

are sent by the receiving unit to inform the transmitting unit that frames sent by the transmitting unit were misdelivered. The Seo method uses a single packet to provide information about multiple misdelivered frames, so that "only one NAK control frame for all missed user data frames is transmitted to a transmitting station to require a retransmission of the missed user data when a timer for an NAK is actually expired." Seo, col. 5, ll. 32-35.

Seo describes the structure of the disclosed NAK frames. The frames include a field called "NAK_TYPE" that indicates how the NAK frame represents missing frames. If the NAK_TYPE is set to "00," then the missing frames are encoded as a list, and the frame requests retransmission of all user data frames between the first missing frame and the last, represented by the "FIRST" and "LAST" values. If the NAK_TYPE is set to "01," then the NAK frame transmits information about the missing transmitted frames using a bitmap. In that case, the NAK frame contains the field "NAK_MAP_SEQ" to identify the starting point of the bitmap and the field "NAK_MAP" to transmit the bitmap.

Before the Board, Wi-Fi argued that the NAK_TYPE field disclosed in Seo is not a "type identifier field" and that Seo therefore does not satisfy the type identifier field limitation of the '215 patent. Wi-Fi further argued that, even if Seo discloses that feature, the NAK_TYPE field is not found within a "message field," as required by the claims at issue. The Board rejected those arguments, found that Seo disclosed all the limitations of the challenged claims of the '215 patent, and therefore held those claims

to be unpatentable. The Board also rejected Wi-Fi's argument that claim 15 of the '215 patent required some sort of "length field," which Seo did not disclose. Finally, the Board held that Wi-Fi had not shown that Broadcom was in privity with the district court defendants, and therefore Broadcom was not barred from filing a petition for inter partes review.

II

On appeal, Wi-Fi continues to press its argument that Broadcom was barred from petitioning for inter partes review because it was in privity with a time-barred district court litigant.

The Board may not institute inter partes review "if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent." 35 U.S.C. § 315(b). To determine whether a petitioner is in privity with a time-barred district court litigant, the Board conducts a flexible analysis that "seeks to determine whether the relationship between the purported 'privy' and the relevant other party is sufficiently close such that both should be bound by the trial outcome and related estoppels." Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,759 (Aug. 14, 2012).

This court has previously addressed whether a patent owner can argue on appeal that the Board improperly allowed a privy of a time-barred district court litigant to

pursue an inter partes review. The statute governing the Board's institution of inter partes review provides that "[t]he determination by the Director whether to institute an inter partes review under this section shall be final and nonappealable." 35 U.S.C. § 314(d). In *Achates Reference Publishing, Inc. v. Apple Inc.*, 803 F.3d 652, 658 (Fed. Cir. 2015), we held that section 314(d) "prohibits this court from reviewing the Board's determination to initiate IPR proceedings based on its assessment of the time-bar of § 315(b), even if such assessment is reconsidered during the merits phase of proceedings and restated as part of the Board's final written decision."

Wi-Fi does not dispute that *Achates* renders its challenge to the Board's timeliness ruling nonappealable if *Achates* is still good law. What Wi-Fi argues is that the Supreme Court's recent decision in *Cuozzo Speed Technologies, LLC v. Lee*, 136 S. Ct. 2131, 195 L. Ed. 2d 423 (2016), implicitly overruled *Achates*.[1] In *Cuozzo* the patent owner challenged the Board's institution decision, arguing that the Board should not have instituted inter partes review, because the petition failed to "identif[y], in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and

1. Wi-Fi also argues that even in the absence of a Supreme Court overruling, we have a license to reconsider *Achates* because the decision was flawed. We decline Wi-Fi's invitation. "We are bound by prior Federal Circuit precedent 'unless relieved of that obligation by an en banc order of the court or a decision of the Supreme Court.'" *MCM Portfolio LLC v. Hewlett-Packard Co.*, 812 F.3d 1284, 1291 (Fed. Cir. 2015) (quoting *Deckers Corp. v. United States*, 752 F.3d 949, 959 (Fed. Cir. 2014)).

the evidence that supports the grounds for the challenge to each claim." 35 U.S.C. § 312(a)(3). Based on the language of section 314(d), the Supreme Court held that the Board's decision on that issue was unreviewable. *Cuozzo*, 136 S. Ct. at 2139. In the course of its opinion, the Court clarified the scope of the preclusion of review:

> [I]n light of § 314(d)'s own text and the presumption favoring review, we emphasize that our interpretation applies where the grounds for attacking the decision to institute inter partes review consist of questions that are closely tied to the application and interpretation of statutes related to the Patent Office's decision to initiate inter partes review. This means that we need not, and do not, decide the precise effect of § 314(d) on appeals that implicate constitutional questions, that depend on other less closely related statutes, or that present other questions of interpretation that reach, in terms of scope and impact, well beyond "this section." Thus, contrary to the dissent's suggestion, we do not categorically preclude review of a final decision where a petition fails to give "sufficient notice" such that there is a due process problem with the entire proceeding, nor does our interpretation enable the agency to act outside its statutory limits by, for example, canceling a patent claim for "indefiniteness under § 112" in inter partes review. Such "shenanigans" may be properly reviewable in the context of § 319 and under the

> Administrative Procedure Act, which enables reviewing courts to "set aside agency action" that is "contrary to constitutional right," "in excess of statutory jurisdiction," or "arbitrary [and] capricious."

Id. at 2141-42 (citations omitted).

We see nothing in the *Cuozzo* decision that suggests *Achates* has been implicitly overruled. The Supreme Court stated that the prohibition against reviewability applies to "questions that are closely tied to the application and interpretation of statutes related to the Patent Office's decision to initiate inter partes review." Section 315 is just such a statute. The time-bar set forth in section 315 addresses who may seek inter partes review, while section 312 governs what form a petition must take. Both statutes govern the decision to initiate inter partes review.

Wi-Fi's arguments to the contrary are unavailing. Wi-Fi argues that *Cuozzo* "tied the limitation of judicial review to the Patent Office's ability to make its substantive patentability determination as embodied in § 314(a)." To the extent that Wi-Fi means to suggest that the Court limited the statutory bar against judicial review to the Board's substantive determination at the time of institution, i.e., whether a particular reference raises a reasonable likelihood of anticipating or rendering a challenged claim obvious, we disagree. The Supreme Court extended the preclusion of judicial review to statutes related to the decision to institute; it did not limit the rule of preclusion to substantive patentability determinations made at the

institution stage, as the facts of *Cuozzo* itself make clear. Subsection 312(a)(3), which the Court addressed in *Cuozzo*, is not related to substantive patentability, but instead is addressed to the conditions for seeking review—in that case, the level of specificity required in the petition.

Wi-Fi also argues that the reviewability ban is limited to issues arising under section 314, because of the statutory text providing that a determination by the Director whether to institute inter partes review "under this section" is not reviewable. 35 U.S.C. § 314(d). This court explicitly rejected that argument in *Achates. See* 803 F.3d at 658 ("Finally, Achates also contends that § 314(d) does not limit this court's review of the timeliness of Apple's petition under § 315, because § 314(d) says '[t]he determination by the Director whether to institute an inter partes review *under this section* shall be final and nonappealable' (emphasis added). Achates' reading is too crabbed and is contradicted by this court's precedent. The words 'under this section' in § 314 modify the word 'institute' and proscribe review of the institution determination for whatever reason."). Nothing in *Cuozzo* casts doubt on that interpretation of the statute, especially in light of the fact that the Supreme Court held that the particularity requirement, which is contained in section 312, is non-appealable.

Wi-Fi next argues that time-bar issues should be reviewable because Board practice allows parties to argue those issues at trial. That argument, too, was rejected in *Achates*. 803 F.3d at 658 ("That the Board considered the time-bar in its final determination does not mean the issue

suddenly becomes available for review or that the issue goes to the Board's ultimate authority to invalidate—the Board is always entitled to reconsider its own decisions."). Wi-Fi has not pointed to anything in *Cuozzo* that casts doubt on that reasoning.

Finally, Wi-Fi argues that the Board's denial of its request for discovery on the time-bar issue is an example of the "shenanigans" that the Supreme Court in *Cuozzo* suggested would be reviewable. We disagree. The Board simply declined to grant discovery because Wi-Fi had not made a sufficient showing to support its request. To hold that such a ruling falls within the narrow exception to the Supreme Court's unreviewability holding would render routine procedural orders reviewable, contrary to the entire thrust of the *Cuozzo* decision.

III

Wi-Fi also challenges the Board's substantive determination that Seo anticipates the '215 patent. Wi-Fi brings three separate challenges: that Seo does not disclose a type identifier field, that Seo does not disclose a type identifier field within a message field, and that the Board misconstrued the term type identifier field.

A

Claim 1 of the '215 patent, which is representative, provides as follows:

Appendix E

> A method for minimizing feedback responses in an ARQ protocol, comprising the steps of:
>
> sending a plurality of first data units over a communication link;
>
> receiving said plurality of first data units; and
>
> responsive to the receiving step, constructing a message field for a second data unit, said message field including a type identifier field and at least one of a sequence number field, a length field, and a content field.

Wi-Fi argues that Seo does not disclose a type identifier field because it discloses only a single type of message, and that the single type of message contains fields for encoding errors as both lists and bitmaps. Wi-Fi relies on Figure 4 of Seo, shown below:

FIELD	**LENGTH (BITS)**
SEQ	8
CTL	4
RE_NUM	2
NAK_TYPE	2
NAK_SEQ	4
L_SEQ_HI	4
FIRST	12

Appendix E

FIELD	**LENGTH (BITS)**
LAST	12
FC5	16
PADDING	VARIABLE
NAK_Map_Count	2
NAK_Map	
NAK_Map_SEQ	12
NAK_Map	8

Based on Figure 4, Wi-Fi argues that the data structure in Seo contains fields for the list type of coding, which are entitled FIRST, LAST, FCS, and PADDING, and fields for the bitmap type of coding, which are entitled NAK_Map_Count, NAK_Map_SEQ, and NAK_Map.

Wi-Fi argues that in Seo all fields are always present, either as useful values or as "padded zeros," i.e., placeholders, regardless of the value of the NAK_TYPE field. Therefore, Wi-Fi argues, the NAK_TYPE field does not function as a type identifier field that identifies the type of coding used in Seo's data structure.

The Board rejected that argument, relying on the disclosure in Seo that certain fields "exist" depending on the value of the NAK_TYPE field. *See* Seo, col. 5, ll. 54-57 ("When a value of the field NAK_TYPE is '00', the receiving station requests a retransmission of missed user data frames numbered a field FIRST through a field

LAST."); col. 6, ll. 18-22 ("If a value of the field NAK_TYPE is '01', the field NAK_MAP_COUNT exists."). Based on those portions of the Seo specification, the Board concluded that Seo discloses a control frame "that includes certain fields only when NAK_TYPE is '00' and includes other fields only when NAK_TYPE is '01.'" Accordingly, the Board rejected Wi-Fi's argument that NAK_TYPE is not a type identifier field.

The Board also credited the testimony of Broadcom's expert that it would not make sense to include unnecessary fields in a message. It was entirely reasonable for the Board to read the term "exist" in Seo in that way. Substantial evidence therefore supports the Board's conclusion that Seo discloses the type identifier field feature recited in the '215 patent.

B

Wi-Fi also argues that even if Seo discloses a type identifier field, Seo does not anticipate the '215 patent, because the NAK_TYPE field in Seo is part of the S-PDU header rather than the message field, as required by the claims.

The Board rejected that argument, finding that the '215 patent does not require the type identifier field to be in any particular part of the message, and that, in any event, Seo's NAK_TYPE field was included in the message field. We agree with the Board. Nothing in the '215 patent specifies whether the type identifier field must be located in the header or any other specific part of the message.

Wi-Fi also argues that a prior amendment to claim 1 shows that the claim is drawn to the distinction between the message body and the header. During the prosecution of the '215 patent, Wi-Fi offered the following amendment:

> said message field including a type identifier field and at least one of ~~a type identifier field,~~ a sequence number field, a length field, and a content field.

That amendment moved the type identifier field from being one of four optional fields to being a required field, accompanied by at least one of the three remaining optional fields.

On appeal, Wi-Fi argues that the amendment "distinguish[es], among other things, fields that were included in the header of the PDU such as the 'PDU_format' field shown in the admitted prior art." That argument is meritless. The type identifier field was identified as part of the message field before and after the amendment, so the amendment had no effect on where in the packet the type identifier field had to be located. The amendment simply made that term a required feature, rather than one of the options listed in the "at least one" clause.

That understanding is confirmed by the applicants' remarks accompanying the amendment. The applicants distinguished a prior art reference by stating that amended claim 1 "provides the type identifier field and at least one of a sequence number field, a length field, and a content field." Because there is no support in the patent

or the prosecution history for Wi-Fi's distinction between the presence of the type identifier field in the message field and in the header, the Board was correct to reject Wi-Fi's argument.

C

Wi-Fi next argues that the Board erred in construing the phrase "responsive to the receiving step, constructing a message field for a second data unit, said message field including a type identifier field" to mean "a field of a message that identifies the type of that message." Wi-Fi argues that the Board's construction failed to specify that a type identifier field must distinguish the type of message from a number of different message types.

We agree with the Board that Wi-Fi's interpretation does no more than restate what is already clear from the Board's construction—that a type identifier field must distinguish between different message types. Wi-Fi's real quarrel is not with the Board's claim construction, but with the Board's conclusion that Seo discloses different message types. As we have noted, the Board's conclusion that Seo discloses different message types is supported by substantial evidence.

IV

Finally, Wi-Fi challenges the Board's analysis of claim 15. That claim reads:

Appendix E

> A method for minimizing feedback responses in an ARQ protocol, comprising the steps of:
>
> sending a plurality of first data units over a communication link;
>
> receiving said plurality of first data units; and
>
> responsive to the receiving step, constructing a message field for a second data unit, said message field including a type identifier field and at least one of, a length field, a plurality of erroneous sequence number-fields, and a plurality of erroneous sequence number length fields, each of said plurality of erroneous sequence number fields associated with a respective one of said plurality of erroneous sequence number length fields.

Wi-Fi argues that claim 15, properly construed, requires that the message field contain either a "length field" or an "erroneous sequence number length field." Because Seo does not disclose length fields of either type, Wi-Fi argues that it does not anticipate claim 15.

Wi-Fi's argument is based on the structure of the "at least one of" clause. That clause requires that at least one of the following be present: "a length field," "a plurality of erroneous sequence number fields," or "a plurality of erroneous sequence number length fields." The second entry on the list, "a plurality of erroneous sequence-number fields," is not by itself a type of length

field. However, the final clause of that limitation provides "each of said plurality of erroneous sequence number fields associated with a respective one of said plurality of erroneous sequence number length fields." That clause, Wi-Fi argues, requires that each erroneous sequence number field must be associated with an erroneous sequence number length field. For that reason, Wi-Fi contends that some sort of length field is required to meet claim 15.

Broadcom argues that the "each of said" clause requires that each of the erroneous sequence number length fields must be associated with an erroneous sequence number field, not the other way around. Therefore, in Broadcom's view, an erroneous sequence number field can stand alone, without an accompanying erroneous sequence number length field; for that reason, according to Broadcom, claim 15 does not require the presence of a length field in all cases.

Wi-Fi's is the better reading of the text of the claim. The structure of the "at least one of" limitation is best understood by stripping it to its essence: substituting A for the length field, B for the plurality of erroneous sequence number fields, and C for the erroneous sequence number length fields. So viewed, the claim by its terms would require one of A, B, or C, except that each of B must be associated with one of C. That reading is at odds with Broadcom's, which would require each of C to be associated with one of B.

While the text of the limitation, standing alone, favors Wi-Fi's interpretation, we conclude that Wi-Fi's interpretation does not make sense in light of the specification, and thus that Broadcom's interpretation must be accepted as correct.

The specification of the '215 patent explains the properties and purpose of the length field. The length field is used in open-ended data structures to provide information about the data structure, such as the number of lists or bitmaps that are present in a packet, or the length of the bitmaps that are used to represent errors. *See* '215 patent, col. 2, ll. 56-62; col. 6, ll. 25-34; col. 7, ll. 52-65. Because the length of a particular message can be fixed by the rules of the protocol, a length field is not a required feature of the invention. *See id.*, col. 7, ll., 57-60 ("For this exemplary embodiment, each such message includes a type identifier, and the length is either fixed or indicated by a length field for each specific message.").

The specification also describes the purpose of the erroneous sequence number fields and the erroneous sequence number length fields. The specification explains that one method for representing errors "is to include a field after each list element which determines the length of the error, instead of indicating the length of the error with an 'ending' [sequence number]." '215 patent, col. 7, ll. 31-33. Using that method, strings of consecutive errors are represented with an erroneous sequence number that marks the beginning of the error, followed by an erroneous sequence number length field that marks how long the error persists. That method is generally more efficient

than representing an error sequence by its starting and ending point because "[i]n most systems, the size of the length field would then be substantially smaller than the size of the [sequence number] field." *Id.*, col. 7, ll. 33-35.

Figure 9 of the '215 patent shows how that method would represent the failed transmission of a series of packets numbered 51-77:

Field	**Field Value**		**Field size**
	Decimal	*Bits*	
LIST'	N/A[1]	01	2
LENGTH	1	00001	5
SN_1	51	000000110011	12
L_1	27	11011	5
ACK	N/A	11	2
SN	101	000001100101	12-1

The erroneous sequence number field, SN1, shows that the error sequence begins at sequence number 51. The erroneous sequence number length field, L1, shows that the error extends for 27 packets, covering packets 51 through 77.

Based on those descriptions of embodiments of the invention, it is clear that an erroneous sequence number length field is useful only when it is paired with an erroneous sequence number field, while an erroneous sequence number field can be useful without an

accompanying erroneous sequence number length field. Thus, an erroneous sequence number field can stand alone, but an erroneous sequence number length field cannot.

The '215 specification makes clear that an erroneous sequence number field can be used absent an erroneous sequence number length field. As examples, Figure 10 shows four erroneous sequence numbers that are used to indicate errors, and Figure 12 shows a bitmap that contains an erroneous sequence number field to indicate where the bitmap begins. Both contain erroneous sequence number fields, but not erroneous sequence number length fields, thus supporting the Board's construction of claim 15.

By contrast, an erroneous sequence number length field can indicate an error only by reference to a starting point, which would be represented by an erroneous sequence number field. The '215 patent discloses no examples of an erroneous sequence number length field without an accompanying erroneous sequence number field, for the simple reason that an erroneous sequence number length field standing alone would not convey sufficient information to determine what packets must be retransmitted.

Based on the full teaching of the specification, we conclude that Wi-Fi's proposed construction of claim 15 is unreasonable. It would allow an erroneous sequence number length field to be present without an erroneous sequence number field, which the specification indicates would not work, while requiring all erroneous sequence number fields to be associated with erroneous sequence

number length fields, which the patent teaches is not necessary. The Board's construction, on the other hand, comports with what the patent teaches about the number and length fields. Even though the language of claim 15, standing alone, provides some support for Wi-Fi's interpretation, we hold that in the end the claim must be read as the Board construed it in order to be faithful to the invention disclosed in the specification.

Accordingly, because claim 15, as properly construed, does not require a length field, we hold that the Board was correct to conclude that Seo anticipates that claim.

AFFIRMED

Appendix E

REYNA, *Circuit Judge*, concurring.

I agree with the majority that Wi-Fi One has neither shown Broadcom to be in privity with the Texas Defendants nor a real party in interest in the Texas litigation.

I write separately to convey my sense that this Court has jurisdiction to address the time bar question despite the statutory requirement that the Board's institution decisions "shall be final and nonappealable." 35 U.S.C. § 314(d). I believe that the legal distinction that exists between an "institution" decision and a final decision compels that the decision in this case is a final decision, not an institution decision. A final decision concerning the time bar set forth by 35 U.S.C. § 315(b) should be subject to review.

DISCUSSION

Our opinion in *Achates Reference Publishing v. Apple, Inc.*, 803 F.3d 652 (Fed. Cir. 2015), holds that a time bar decision is not reviewable—a holding that I believe should be reconsidered by the *en banc* court. The § 315(b) time bar falls squarely within the exceptions acknowledged by this court in *Achates*. "[E]ven when the statutory language bars judicial review, courts have recognized that an implicit and narrow exception to the bar on judicial review exists for claims that the agency exceeded the scope of its delegated authority or violated a clear statutory mandate." *Achates*, 803 F.3d at 658 (*quoting Hanauer v. Reich*, 82 F.3d 1304, 1307 (4th Cir. 1996)).

Achates renders § 315(b) toothless. For example, if the Board simply chose to ignore a time bar issue altogether, there would be no avenue for appellate review. I do not believe that is what Congress intended. Rather, I believe § 314(d) was intended to ensure that institution decisions were truly preliminary, not to capture all statutory limitations on the inter partes review ("IPR") process.

Here, the statutory language explicitly allows review of the Board's final decision,[1] and in this case we are faced with an argument that the Board exceeded the scope of its statutory authority both in instituting the IPR and in issuing its final decision.

It is clear that not every decision on whether there exists legal basis to commence an IPR is an unreviewable determination by the Director to institute as contemplated under § 314(d). For example, the Supreme Court has noted that § 314(d) may not bar consideration of a constitutional question, but that it "does bar judicial review of the kind of mine-run claim" of whether the grounds stated by the PTO in its institution decision matched the grounds in the original petition for IPR. *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2136, 195 L. Ed. 2d 423 (2016). The Court noted that Congress did not intend for a final IPR decision to "be unwound under some minor statutory technicality related to its preliminary decision to institute inter partes review." *Id.* at 2140.

---

1. A party to an IPR "may appeal the Board's decision" to this court. 35 U.S.C. § 141(c).

The time-bar question is not a "mine-run" claim, and it is not a mere technicality related only to a preliminary decision concerning the sufficiency of the grounds that are pleaded in the petition. *See Cuozzo*, 136 S. Ct. at 2136. Indeed, the time bar question is immaterial to the Board's initial determination of whether there is a reasonable likelihood the petitioner would prevail on the merits. Rather, the time bar deprives the Board of jurisdiction to consider whether to institute a review after one year has expired from the date a petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent. 35 U.S.C. § 315(b). Compliance with the time bar is part of the statutory basis on which the final decision rests, despite the fact that the question is first evaluated at the outset of the proceeding and noticed as part of the institution decision.

Cuozzo explicitly notes that its holding does not "enable the agency to act outside its statutory limits" and that such "shenanigans" are properly reviewable. 136 S. Ct. at 2141-42. That admonition compels us to review allegations that the Board has ignored, or erred in the application of, the statutory time bar.

APPENDIX F — JUDGMENT OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, DATED SEPTEMBER 16, 2016

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

2015-1945

WI-FI ONE, LLC,

Appellant,

v.

BROADCOM CORPORATION,

Appellee.

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2013-00602.

JUDGMENT

THIS CAUSE having been heard and considered, it is ORDERED and ADJUDGED:

PER CURIAM (DYK, BRYSON, and REYNA, *Circuit Judges*).

AFFIRMED. *See* Fed. Cir. R. 36.

Appendix F

ENTERED BY ORDER OF THE COURT

September 16, 2016	/s/ Peter R. Marksteiner
Date	Peter R. Marksteiner
	Clerk of Court

APPENDIX G — JUDGMENT OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, DATED SEPTEMBER 16, 2016

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

2015-1946

WI-FI ONE, LLC,

Appellant,

v.

BROADCOM CORPORATION,

Appellee.

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2013-00636.

JUDGMENT

THIS CAUSE having been heard and considered, it is ORDERED and ADJUDGED:

PER CURIAM (DYK, BRYSON, and REYNA, *Circuit Judges*).

AFFIRMED. *See* Fed. Cir. R. 36.

Appendix G

ENTERED BY ORDER OF THE COURT

September 16, 2016	/s/ Peter R. Marksteiner
Date	Peter R. Marksteiner
	Clerk of Court

APPENDIX H — DECISION OF THE UNITED STATES PATENT AND TRADEMARK OFFICE, PATENT TRIAL AND APPEAL BOARD, DATED JUNE 1, 2015

UNITED STATES PATENT AND
TRADEMARK OFFICE

BEFORE THE PATENT TRIAL
AND APPEAL BOARD

BROADCOM CORPORATION,

Petitioner,

v.

WI-FI ONE, LLC,

Patent Owner.

IPR2013-00601 (Patent 6,772,215 B1)
IPR2013-00602 (Patent 6,466,568 B1)
IPR2013-00636 (Patent 6,424,625 B1)[1]

Before KARL D. EASTHOM, KALYAN K. DESHPANDE, and MATTHEW R. CLEMENTS, *Administrative Patent Judges.*

CLEMENTS, *Administrative Patent Judge.*

---

1. We exercise our discretion to issue one Order to be filed in each case. The parties are not authorized to use this style heading for any subsequent papers.

Appendix H

DECISION
Request for Rehearing
37 C.F.R. § 42.71(d)

I. SUMMARY

Patent Owner, Wi-Fi One, LLC,[2] requests rehearing of the Final Written Decisions (IPR2013-00601, Paper 66, "601 Dec."; IPR2013-00602, Paper 60, "602 Dec."; IPR2013-00636, Paper 60, "636 Dec."). Paper 70 ("Req.").[3] Patent Owner seeks rehearing on the grounds that:

1. The Board misapprehended the purpose of the "real party in interest or privy" language in 35 U.S.C. § 315(b), and misapprehended the correct legal standard for determining whether a non-party is a "real party in interest or privy of petitioner" under § 315(b); and

2. On July 11, 2014, Patent Owner filed an Updated Mandatory Notice in IPR2013-00601 indicating that the patent-at-issue had been assigned to Wi-Fi One, LLC, and that Wi-Fi One, LLC and PanOptis Patent Management, LLC are now the real parties-in-interest. Paper 43. The same paper was filed in IPR2013-00602 (Paper 40) and IPR2013-00636 (Paper 38).

3. Patent Owner filed a Request for Rehearing in each of IPR2013-00601 (Paper 70), IPR2013-00602 (Paper 64), and IPR2013-00636 (Paper 64). All three requests put forward substantively the same arguments and, thus, we address them together with reference to the Request in IPR2013-00601. Citations are to IPR2013-00601, unless otherwise noted.

2. The Board misapprehended the entirety of the factual record and overlooked evidence supporting Patent Owner's contention that certain district court defendants are real parties in interest and/or privies of Petitioner in this proceeding.

Req. 2. Patent Owner also argues that our Final Written Decisions raise administrative law issues. *Id.* at 4, 13–15.

The Requests for Rehearing are *denied*.

II. DISCUSSION

The applicable standard for a request for rehearing is set forth in 37 C.F.R. § 42.71(d), which provides in relevant part:

> A party dissatisfied with a decision may file a request for rehearing, without prior authorization from the Board. The burden of showing a decision should be modified lies with the party challenging the decision. The request must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed in a motion, opposition, or a reply.

A. 35 U.S.C. § 315(b)

Patent Owner argues that the Board misapprehended the purpose of the "real party in interest, or privy"

language of § 315(b). Req. 4. Specifically, Patent Owner argues that "the legislative purpose of [35 U.S.C. § 315(b)] is to ensure IPR Petitions are not used as a litigation tactic for purposes of delay" (*id.* at 4), and that "[t]he plain text of the statute makes clear that . . . § 315(b) is intended to prevent litigation defendants from subverting the statutory time-bar by having their agents or cohorts file an IPR petition that they themselves are barred from filing" (*id.* at 5). Patent Owner also argues that the legal standard for determining whether a third party is a "real party in interest, or privy of petition" under § 315(b) "is purposefully broad and flexible so that the Board can determine, on a caseby-case basis and in light of all relevant facts, whether particular parties are attempting to circumvent the § 315(b) time-bar." Req. 7.

Patent Owner has not argued in its Patent Owner Response the legislative purpose of § 315(b). We could not have misapprehended or overlooked arguments not before us. Moreover, Patent Owner identifies nothing in our Decision that it contends mischaracterizes the legislative purpose of § 315(b). We are not persuaded, therefore, that we have overlooked or misapprehended the legislative purpose of § 315(b).

Patent Owner also argues that we misapprehended the legal test that should be applied to determine whether a non-party is a "real party in interest, or privy" for purposes of § 315(b). Req. 6. Specifically, Patent Owner contends that "the Board applied a narrow and rigid standard that is erroneous as a matter of law" (*id.* at 7) because it "requires — as an absolute and necessary

condition — that Broadcom controlled or could have exercised control over one or more of the District Court Defendants in relation to the District Court Litigation" (*id.*) without "also considering, *inter alia*, the non-party's control over the IPR" (*id.* at 8). According to Patent Owner, "the issue under § 315(b) is whether the District Court Defendants have attempted to circumvent the one-year statutory time-bar." Req. 9.

Although our Decision on Patent Owner's Motion for Additional Discovery (Paper 23) focuses primarily on Broadcom's ("Petitioner") exercise of control, or opportunity to exercise control over the prior District Court lawsuit (Req. 8), that is because that was the focus of Patent Owner's Motion for Additional Discovery. *See, e.g.*, Paper 14, 6 ("Here, evidence will prove that Broadcom has had the opportunity to control and maintains a substantive legal relationship with the D-Link Defendants sufficient to bind Broadcom to the District Court's judgment.").

That decision, however, did not characterize the legal standard, for all cases, as being limited strictly to a petitioner's control, or opportunity to control, a non-party in previous litigation. To the contrary, it addressed control, or opportunity to control, by a non-party generally as one of a number of factors:

> Whether parties are in privity, for instance, depends on whether the relationship between a party and its alleged privy is "sufficiently close such that both should be bound by the trial outcome and related estoppels." [*Office*

> *Patent Trial Practice Guide*, 77 Fed. Reg. 48,756, 48,759 (Aug. 14, 2012]. Depending on the circumstances, a number of factors may be relevant to the analysis, including whether the non-party "exercised or could have exercised control over a party's participation in a proceeding," and whether the non-party is responsible for funding and directing the proceeding. *Id.* at 48,759-60.

Paper 23, 7.

That decision also addresses Patent Owner's theory that the indemnity agreements imply that the District Court Defendants are real parties in interest in these *inter partes* reviews ("IPRs"). *See id.* at 12–13. Patent Owner relied on substantively the same arguments and evidence in its Patent Owner Response as in its Motion for Additional Discovery, and our Final Written Decision, thus, applied essentially the same analysis. 601 Dec. 8–9. Accordingly, we are not persuaded that we misapprehended the proper legal standard for establishing privity or real party in interest.

B. District Court Defendants

Patent Owner argues that we misapprehended and overlooked evidence establishing that certain District Court defendants are real parties in interest and/or are in privity with Petitioner for purposes of this proceeding. Req. 10–13. Specifically, Patent Owner argues that it has made "a strong circumstantial showing that Petitioner

and at least some of their District Court Defendant customers are in cahoots" because "there are indemnity agreements," they "share a common economic and legal interest," and "[Petitioner] has been coordinating with the District Court Defendants for many years." *Id.* at 11–12. According to Patent Owner, "the Board erred when it decided the § 315(b) issue without reviewing the known indemnity agreements." *Id.* at 12.

Patent Owner's arguments are not persuasive. The evidence cited by Patent Owner were Paper 3, and Exhibits 2005 and 2015–2018. PO Resp. 8–14. Exhibit 2018 is a final judgment of infringement in the co-pending district court litigation that sheds no light on whether Broadcom controlled, or could have controlled, the district court defendants, or vice-versa. All of the other evidence was considered in our Decision on Patent Owner's Motion for Additional Discovery. For example, we considered, and rejected, Patent Owner's argument that an indemnity relationship is sufficient to establish privity:

> Contrary to Ericsson's assertion that "[t]he weight of authority strongly supports that an indemnity agreement . . . establish[es] privity," Mot. 6, *Bros. Inc, TRW, Dentspl[]y* and other cases noted *supra* illustrate that more is required. Control of the litigation, or some sort of representation, constitutes a "crucial" factor. *Dentsply*, 42 F.Supp.2d at 398.

Paper 23, 9. As we indicated in our Final Written Decision, Patent Owner's Response relied on substantively the

same arguments and evidence as its Motion for Additional Discovery, and we were not persuaded for the same reasons as explained in our decision on that motion. 601 Dec. 8–9. Accordingly, we are not persuaded that we misapprehended or overlooked the evidence relied upon by Patent Owner. To the extent Patent Owner is arguing that we should have granted its Motion for Additional Discovery directed to the indemnity agreements, the argument is untimely because our decision denying that discovery was issued well over a year before our Final Written Decision, Patent Owner requested rehearing (Paper 27) and we denied that request (Paper 28). *See* 37 C.F.R. § 42.71(d)(1).

In these proceedings, Patent Owner does not set forth a persuasive argument, supported by evidence, that the District Court Defendants funded, controlled, or could have controlled these proceedings, or that Petitioner's indemnity agreements even mention IPRs, let alone would show funding, control, or ability to control IPRs, or would have obligated Broadcom to file specific, if any, IPRs. *See* Req. 12. Instead, Patent Owner generally asserts that "Broadcom's duty to indemnify triggered the successive attack on [it]s patents," without specifying, based on cited precedent supporting the theory, how even a generic trigger for some unspecified future action, even if it existed, elevates the District Court Defendants to real parties in interest in the IPRs. *See* PO Resp. 13.

Patent Owner also argues that Petitioner failed to provide evidence of the non-party's lack of participation in, or control over, this proceeding, and that the Declaration

of David Djavaherian (Ex. 1007) submitted by Petitioner in its Opposition to Patent Owner's Motion for Additional Discovery is carefully worded to obscure the true nature of the relationship between Petitioner and the District Court defendants. Req. 11, 12. Patent Owner did not make these arguments in the Patent Owner Response. We, therefore, could not have misapprehended or overlooked them.

C. Administrative Law Issues

Patent Owner argues that "the Board's Final Written Decision and other actions in this IPR are *ultra vires*, undertaken without statutory authority." Req. 13. Specifically, Patent Owner argues the following:

> The Board's refusal to consider a reasonably full evidentiary record in connection with the § 315(b) issue; its denial of all discovery on the issue; and its refusal to consider the terms of the known indemnity agreement and other known facts all violate the Board's duties under the APA. *See Olenhouse v. Commodity Credit Corp.*, 42 F.3d 1560, 1581 (10th Cir. 1994); *Intel Corp. v. U.S. Int'l Trade* [*Comm'n*], 946 F.2d 821, 836-39 (Fed. Cir. 1991).

Id. at 14. Patent Owner also argues that (1) our actions are inconsistent with public statements made during the rulemaking process and, therefore, violate the Administrative Procedure Act ("APA"); (2) our Decision is contrary to 37 C.F.R. § 42.3(b) and our failure to follow our

rules is contrary to the APA; and (3) our Decision does not establish that we have jurisdiction to hear this petition in light of 35 U.S.C. § 315(b), contrary to the APA. *Id.* at 15.

Patent Owner's arguments are predicated on its contention that we lack jurisdiction under § 315(b) because the defendants in the co-pending district court litigation are real parties-in-interest who were served with a complaint alleging infringement more than one year before the filing of the Petitions in these proceedings. As discussed above, we are not persuaded that we erred in determining that those defendants are not real parties in interest. As a result, we are not persuaded that the Petitions were time-barred under § 315(b), and we are, therefore, not persuaded that our Final Written Decisions are *ultra vires* actions that exceed our statutory authority.

III. Conclusion

For the foregoing reasons, Patent Owner has not shown that our Final Written Decision in IPR2013-00601 should be modified. For the same reasons, Patent Owner also has failed to show that our Final Written Decisions in IPR2013-00602 and IPR2013-00636 should be modified.

ORDER

Accordingly, it is:

ORDERED that Patent Owner's Requests for Rehearing are *denied*.

APPENDIX I — FINAL WRITTEN DECISION OF THE UNITED STATES PATENT AND TRADEMARK OFFICE, PATENT TRIAL AND APPEAL BOARD, DATED MARCH 6, 2015

UNITED STATES PATENT AND
TRADEMARK OFFICE

BEFORE THE PATENT TRIAL
AND APPEAL BOARD

BROADCOM CORPORATION,

Petitioner,

v.

WI-FI ONE, LLC,

Patent Owner.

Case IPR2013-00636
Patent 6,424,625 B1

Before KARL D. EASTHOM, KALYAN K. DESHPANDE, and MATTHEW R. CLEMENTS, *Administrative Patent Judges.*

CLEMENTS, *Administrative Patent Judge.*

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

Appendix I

I. INTRODUCTION

Broadcom Corporation ("Petitioner") filed a Petition requesting *inter partes* review of claim 1 of U.S. Patent No. 6,424,625 (Ex. 1001, "the '625 patent"). Paper 3 ("Pet."). Telefonaktiebolaget L. M. Ericsson[1] ("Patent Owner") filed an election to waive its Preliminary Response. Paper 19. On March 10, 2014, we instituted an *inter partes* review of claim 1on certain grounds of unpatentability alleged in the Petition. Paper 25 ("Dec. to Inst.").

After institution of trial, Patent Owner filed a Patent Owner Response (Paper 34, "PO Resp.") and a Motion to Amend (Paper 36, "Mot. to Amend"). Petitioner filed a Reply (Paper 45, "Pet. Reply") and an Opposition to Patent Owner's Motion to Amend (Paper 44, "Opp. to Mot. to Amend"). Patent Owner filed a Reply to Petitioner's Opposition to its Motion to Amend. Paper 47 ("PO Reply"). Oral hearing was held on December 8, 2014.[2]

The Board has jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73.

---

1. On July 11, 2014, Patent Owner filed an Updated Mandatory Notice indicating that the '215 patent had been assigned to Wi-Fi One, LLC, and that Wi-Fi One, LLC and PanOptis Patent Management, LLC were now the real parties-in-interest. Paper 38.

2. A transcript of the oral hearing is included in the record as Paper 59.

Petitioner has shown, by a preponderance of the evidence, that claim 1 of the '625 patent is unpatentable. Petitoner's Motion to Amend is *denied*.

A. Related Proceedings

Petitioner and Patent Owner indicate that the '625 patent is involved in a case captioned *Ericsson Inc. v. D-LINK Corp.,* Civil Action No. 6:10-cv-473 (E.D. Tex.) ("D-Link Lawsuit"). Pet. 1–2; Paper 6, 1. Patent Owner also identifies an appeal at the Federal Circuit captioned *Ericsson Inc. v. D-LINK Corp.*, Case Nos. 2013-1625, -1631, -1632, and -1633. Paper 6, 1. Petitioner also filed two petitions for *inter partes* review of related patents: IPR2013-00601 (U.S. Patent No. 6,772,215) and IPR2013-00602 (U.S. Patent No. 6,466,568). Pet. 2.

B. The '625 patent

The '625 patent relates generally to Automatic Repeat Request (ARQ) techniques for transferring data in fixed/wireless data networks. Ex. 1001, 1:7–9. ARQ techniques commonly are used in data networks to ensure reliable data transfer and to protect data sequence integrity. *Id.* at 1:13–15. The integrity of data sequences normally is protected by sequentially numbering packets and applying certain transmission rules. *Id.* at 1:20–22. By doing so, the receiver receiving the packets can detect lost packets and thereby request that the transmitter retransmit the affected data packets. *Id.* at 1:15–20. According to the '625 patent, there were three main ARQ schemes: Stop-and-Wait; Go-Back-N; and Selective Reject. *Id.* at 1:23–25.

All three provide a mechanism for transferring packets to a receiver in a data network in an appropriate order. *Id.* at 1:25–27.

Normally, it is desirable to transfer all packets without data loss. *Id.* at 3:46–47. Sometimes, however, sending significantly delayed packets provides no benefit—e.g., where the delay causes the information in the packets to become outdated and therefore useless to the receiver. *Id.* at 3:47–51. Examples of delay-sensitive applications are, e.g., telephony, video conferencing, and delay-sensitive control systems. *Id.* at 3:51–53. According to the '625 patent, prior art ARQ methods did not recognize and allow for situations where data packets have a limited lifetime, and therefore, fail to minimize bandwidth usage by not sending (or resending) significantly delayed or outdated data packets. *Id.* at 4:9–13.

To address these issues, the '625 patent discloses an ARQ technique that minimizes bandwidth usage by accounting for data packets that have an arbitrary but limited lifetime. *Id.* at 4:16–19. Exemplary embodiments of the invention include enhanced "Go- Back-N" and "Selective Reject" techniques that discard outdated data packets. *Id.* at 4:21–25. In an exemplary embodiment of the invention, the progress of a bottom part of a sender window of the transmitter is reported to the receiver in order to allow the receiver to properly skip packets which do not exist anymore because they have been discarded. *Id.* at 5:15–21. Thus, the receiver can be commanded to skip or overlook the packets that have been discarded or, in other words, to release any expectation of receiving

the packets that have been discarded. *Id.* at 5:22–27. In the case where the transmitter discards a packet, it orders the receiver to accept the next packet by setting a Receiver Packet Enforcement Bit ("RPEB") in the ARQ header of the next packet and sending the packet to the receiver. *Id.* at 5:28–32. When the receiver receives the packet, the RPEB will cause the receiver to accept the packet. *Id.* at 5:32–33.

Figure 8 is reproduced below.

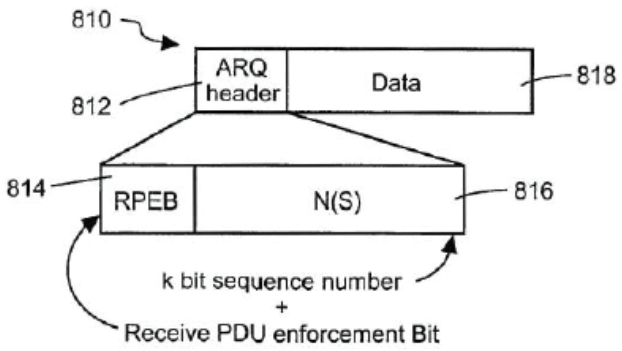


FIG. 8

Figure 8 shows ARQ packet 810 with ARQ header 812 and data portion 818. *Id.* at 5:33–35. Header 812 includes RPEB 814 and k-bit sequence number N(S) 816. *Id.* at 5:35–37. RPEB 814 may be used in a variety of situations. *Id.* at 5:41–43. For example, if a NACK is sent by a receiver, received by the transmitter, and is valid for one discarded data packet, then the next data packet to be retransmitted can have RPEB set to TRUE. *Id.* at 5:43–48. In another example, if a retransmission timer expires and one or

more data packets have been discarded, the next incoming data packet to be transmitted (or the first data packet to be retransmitted) can have RPEB set to TRUE. *Id.* at 5:49–53. If RPEB is TRUE and the difference between the sequence number and the Expected Sequence Number (ESN) of the next packet to be received is less than the window size (i.e., half the maximum sequence number), the packet will be accepted and forwarded to a higher layer (as long as the data in the packet is also correct). *Id.* at 5:62–63, 6:32–36. In this way, the various embodiments of the invention increase throughput of a communications system using ARQ packets by discarding outdated packets. *Id.* at 9:60–62.

C. Illustrative Claim

Claim 1, the sole challenged claim, is reproduced below:

> 1. A method for discarding packets in a data network employing a packet transfer protocol including an automatic repeat request scheme, comprising the steps of:
>
> a transmitter in the data network commanding a receiver in the data network to a) receive at least one packet having a sequence number that is not consecutive with a sequence number of a previously received packet and b) release any expectation of receiving outstanding packets having sequence numbers prior to the at least one packet; and

the transmitter discarding all packets for which acknowledgment has not been received, and which have sequence numbers prior to the at least one packet.

D. Prior Art Supporting the Instituted Grounds

The following prior art was asserted in the instituted grounds:

Garrabrant	US 5,610,595	Mar. 11, 1997	Ex. 1002
Andreas Hettich, "Development and performance evaluation of a Selective Repeat-Automatic Repeat Request (SR-ARQ) protocol for transparent, mobile ATM access" (April 17, 1996) (diploma paper, Aachen Tech. University)("Hettich")			Ex. 1003
Walke	DE 19543280	May 22, 1997	Ex. 1004
Hettich (English language translation)[3]			Ex. 1007
Walke	DE 19543280 (English translation)[4]	May 22, 1997	Ex. 1008

3. All references in this decision to "Hettich" are to the English translation (Ex. 1007) of the German thesis.

4. All references in this decision to "Walke" are to the English translation (Ex. 1008) of the German patent publication.

E. The Instituted Grounds of Unpatentability

The following table summarizes the challenges to patentability on which we instituted *inter partes* review:

Reference	Basis
Garrabrant	§ 102
Hettich	§ 102
Walke	§ 103

II. ANALYSIS

A. 35 U.S.C. § 315(b)

Patent Owner argues that "Petitioner is subject to the 35 U.S.C. § 315(b) bar as a privy to the D-Link Defendants, and because the DLink Defendants are real parties-in-interest to this action, despite Petitioner's failure to designate them as such under 35 U.S.C. § 312(a)(2)." PO Resp. 8–9. According to Patent Owner, Petitioner is in privity with defendants named in the D-Link Lawsuit (*Ericsson Inc. v. D-Link Corp.*, 6:10-cv-473) because, *inter alia*, "[Petitioner] has an indemnity relationship with Dell and Toshiba." *Id.* at 9–12. Patent Owner also argues that the defendants named in the D-Link Lawsuit (the "D-Link Defendants") are real parties-in-interest to this proceeding because Petitioner has a "substantive legal relationship with at least Dell and Toshiba," Petitioner used the same prior art references as the D-Link Defendants, and the Petition was filed after the D-Link Defendants abandoned their invalidity case regarding the '625 patent in the D-Link Lawsuit. *Id.* at 12–15.

Petitioner counters that "[Patent] Owner has raised this identical argument twice, and failed each time," and that "[t]his third attempt relies on exactly the same arguments [Patent] Owner made to this Board and the Federal Circuit and should be rejected for the same reasons." Pet. Reply 1. Petitioner continues that, "[Patent] Owner offers no new reason whatsoever for this Board to reverse its prior decision that [Patent] Owner's proferred 'evidence' and legal authorities fail to amount to anything more than 'speculation' or 'a mere possibility' that [Petitioner] is in privity with the D-Link Defendants or that the D-Link Defendants are real parties-in-interest." *Id.* We find Petitioner's arguments persuasive.

Patent Owner's arguments and evidence are not different substantively from the arguments and evidence presented in its Motion for Additional Discovery (Paper 11). The arguments and evidence are unpersuasive for same reasons explained in our Decision on Patent Owner's Motion for Additional Discovery (Paper 20), which we adopt and incorporate by reference.

B. Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are interpreted according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *see also In re Cuozzo Speed Technologies, LLC*, No. 2014-1301, 2015 WL 448667, at *5–*8 (Fed. Cir. Feb. 4, 2015) ("Congress implicitly adopted the broadest reasonable interpretation standard in enacting the AIA," and "the standard was properly adopted by PTO regulation."). Under the

broadest reasonable interpretation standard, claim terms are given their ordinary and customary meaning as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). An inventor may rebut that presumption by providing a definition of the term in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). In the absence of such a definition, limitations are not to be read from the specification into the claims. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

1. Preamble

Petitioner proposes that the preamble of claim 1 should not be construed to limit claim 1. Pet. 17–18. Specifically, Petitioner argues that the terms used in the preamble are not later referred to or necessary to understand the body of claim 1, and that the preamble merely states the purpose or intended use of the invention. *Id.* at 17. Petitioner further argues that, during prosecution of the '625 patent, the Patent Owner did not rely on the preamble to distinguish the prior art. *Id.* at 18.

"In general, a preamble limits the invention if it recites essential structure or steps, or if it is 'necessary to give life, meaning, and vitality' to the claim." *Catalina Marketing Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (quoting *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999)).

On this record, because claim 1 defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, we agree that the preamble does not limit claim 1.

2. "commanding"

Petitioner argues that "commanding" should be construed to mean "an instruction represented in a control field to cause an addressed device to execute a specific control function." Pet. 18–19 (emphasis and internal quotation marks omitted). Petitioner's proposed construction is similar to the definition of "command" from the *IEEE Dictionary*. Pet. 19 n.3 (citing Ex. 1011, 214–215).

Petitioner argues that this construction is consistent with the claims and specification of the '625 patent, which describes the commanding step being carried out by an enforcement bit ("RBEP bit"). *Id.* (citing Ex. 1001, Abstract, claim 3). Petitioner argues that the definition proposed by Patent Owner in the Texas Litigation was overly broad because one of ordinary skill would not understand a packet to be a command to receive simply because the receiver receives it. Pet. 19–20 (citing Ex. 1006 ¶ 38).

The '625 patent states that, "the receiver can be *commanded* to skip or overlook the packets which have been discarded, or in other words, to release any expectation of receiving the packets which have been discarded." Ex. 1001, 5:22–25 (emphasis added). The

'625 patent further explains that, "[i]n the case where the transmitter discards a packet, it orders the receiver to accept the next packet, by setting a certain Receiver Packet Enforcement Bit (RPEB) in the ARQ header of the next packet and sending the packet to the receiver." *Id.* at 5:28–32. The result is that, "[w]hen the receiver receives the packet, the RPEB bit will cause the receiver to accept the packet." *Id.* at 5:32–33. Thus, not every received packet "commands" the receiver to perform the rest of the claimed limitation; only a packet whose RPEB bit is set "commands" the receiver to do so. Moreover, Petitioner's proposed construction is consistent with how a person of ordinary skill in the art would have understood the term at the time that the '625 patent was filed. *See* Ex. 1011, 214–215. Accordingly, in the Decision to Institute, we construed "commanding" to mean "an instruction represented in a control field to cause an addressed device to execute a specific control function." Dec. to Inst. 8–9.

Patent Owner argues that this construction "does not represent the broadest reasonable construction" (PO Resp. 19) because it "improperly imports limitations from the specification" by reciting "represented in a control field" (*Id.* at 20). According to Patent Owner, the broadest reasonable interpretation of "commanding" is "exercising a dominating influence." *Id.* at 19–20.

Patent Owner's proposed construction relies heavily on extrinsic evidence in the form of a definition from http://www.merriam-webster.com. Patent Owner does not even attempt to establish that this definition is contemporaneous with the effective filing date of the '625

patent. Nevertheless, to the extent that "an instruction represented in a control field" incorporates a limitation from the Specification, we modify our construction to clarify that the command need not be in any particular format, such as the RPEB bit of the preferred embodiment; it need only cause an addressed device to execute a specific control function. Accordingly, we construe "commanding" to mean "causing an addressed device to execute a specific control function."

C. Claim 1 – Anticipation by Garrabrant

Petitioner argues that claim 1 is unpatentable under 35 U.S.C. § 102(b) as anticipated by Garrabrant. Pet. 28–37. In support of this ground of unpatentability, Petitioner provides detailed explanations as to how each claim limitation is disclosed by Garrabrant, and relies upon the Declaration of Dr. Harry Bims (Ex. 1006). *Id.* (citing Ex. 1006 ¶¶ 47–70).

Patent Owner argues that claim 1 is not anticipated by Garrabrant because Garrabrant does not disclose (1) "commanding a receiver to . . . receive," as recited in claim 1; (2) "commanding a receiver to . . . release," as recited in claim 1; and (3) "discarding all packets for which acknowledgment has not been received, and which have sequence numbers prior to the at least one packet," as recited in claim 1. PO Resp. 20–37.

Upon consideration of the parties' contentions and supporting evidence, we determine that Petitioner has not demonstrated, by a preponderance of the evidence, that claim 1 is anticipated by Garrabrant.

Appendix I

Garrabrant (Exhibit 1002)

Garrabrant describes a method and apparatus for transmitting data in a packet radio communication system having data sources, destinations, and intermediate repeaters. Ex. 1002, Abstract.

According to a packet protocol, a sequence index is used to prevent duplicate packets from being received by requiring that the sequence number fall within a sequence number window at each device. *Id.* The sequence number window is incremented each time a packet is received. *Id.* The sequence number also is used to cause the retransmission of packets that are lost, at which time the sequence number window in the devices that are affected are reset to allow transmission of the lost packet. *Id.*

Figure 7A is reproduced below.

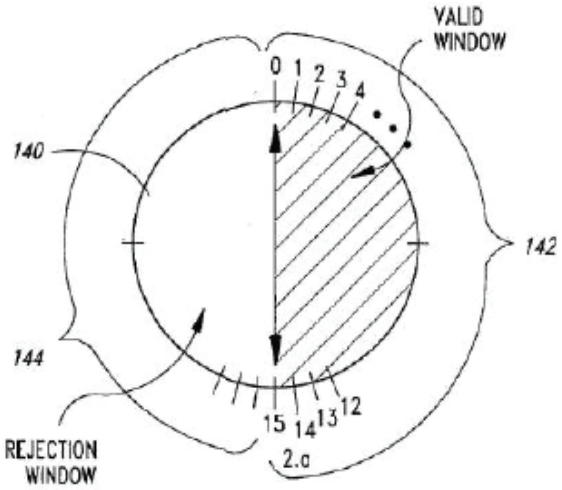


Fig. 7A

Appendix I

Figure 7A illustrates a window used with the packet radio communication system of the '625 patent according to the protocol of the '625 patent before the transmission of a message. *Id.* at 9:9–13. The window has circle 140 with sequence numbers on the circumference of the circle representing the possible values that can be contained in a set of possible sequence numbers. *Id.* at 9:13–16. Some predetermined fraction of the set of possible sequence numbers constitutes the set of sequence numbers in "valid" window 142, and the set of remaining possible sequence numbers constitutes the set of sequence numbers in "rejection" window 144. *Id.* at 9:20–24.

When the message source does not receive a response ("UA") acknowledging receipt of the transmitted message, the message is retransmitted for a certain predetermined number of times. *Id.* at 10:4–8. A source unit and a destination unit will allow as many messages as there are in "valid" window 142 to become lost while still maintaining synchronization. *Id.* at 10:15–17.

Figures 8A and 8B, reproduced below, show what happens if five packets are lost. *Id.* at 10:17–18.

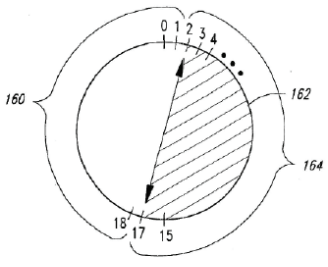


Fig. 8A

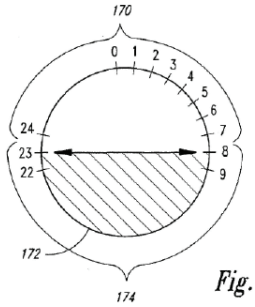


Fig. 8B

Appendix I

Figure 8A illustrates rejection window 160 in circle set of acceptable sequence numbers 162 at a destination unit of the packet radio communication system *before* the rejection window is updated in response to the receipt of a "lost" message. *Id.* at 10:18–24. Figure 8B illustrates rejection window 170 in circle set of acceptable sequence numbers 172 at the destination unit *after* the rejection window is updated in response to the receipt of a "lost" message. *Id.* at 10:24–28. In Figure 8A, it is assumed that out of 8 packets sent, packets 0 and 1 were successfully received to define "valid" window 164 and packets 2 through 6 were lost. *Id.* at 10:28–30. As a result, "valid" window 164 did not advance further. *Id.* at 10:30–32. Each time a packet was transmitted, the sender unit incremented its sequence count. *Id.* at 10:32–34. However, because these packets were lost, the destination unit did not receive them and "valid" window 164 is still set between 2 and 17. *Id.* at 10:34–37. When packet 7 eventually arrives at the destination unit, it falls within "valid" window 164 and is accepted by the destination unit. *Id.* at 10:37–39. The destination unit then sets its internal sequence count to 8 as shown in Figure 8B and slides its "valid" window 164 to the position of "valid" window 174, shown in Figure 8B, to allow packets 8 through 23. *Id.* at 10:39–42.

Analysis

Independent claim 1 recites

> a transmitter in the data network commanding a receiver in the data network to a) receive at least one packet having a sequence number that

> is not consecutive with a sequence number of a previously received packet and b) release any expectation of receiving outstanding packets having sequence numbers prior to the at least one packet.

Petitioner relies upon Garrabrant's disclosure of sending a "lost" message that instructs the receiver to move its window forward upon receipt of the next received packet. Pet. 31 (citing Ex. 1002, Figs. 8A, 8B, 10:14–42). In the example illustrated in Figures 8A and 8B, the "lost" message instructs the receiver to receive a packet (packet 7) having a sequence number that is not consecutive with a sequence number of a previously received packet (packets 0 and 1), and release any expectation of receiving outstanding packets having sequence numbers prior to the at least one packet (i.e., moving "valid" window forward to allow packets 8 through 23, thereby giving up on packets 2 through 5). *Id.*

Patent Owner argues as follows:

> A "lost" message is not a unique command (or even a command for that matter); a "lost" message that is received by a receiver is no different from, nor treated differently from any other message (or packet) received by the receiver—that is why Garrabrant puts that term in quotes. (*See id.* at 10:18-28 ("a 'lost' message").) Upon receipt of a message, the Garrabrant receiver adjusts its valid window

> (and concomitantly the rejection window) based upon the sequence number of every received message—whether that received message is a "lost" message or one received in sequence.

PO Resp. 26. According to Patent Owner, "[a]n analysis of Figs. 8A and 8B shows that the 'lost' message disclosed in Garrabrant does not command the receiver to accept anything, let alone a packet." *Id.* at 28. Although Garrabrant describes Figure 8B as representing the rejection window after it is updated in response to receipt of "a 'lost' message" (Ex. 1002, 10:24–28), Patent Owner argues that the "lost" message referred to is actually packet 7. PO Resp. 29 (citing 1002, 10:37–42). Patent Owner also argues that if the "lost" message were a command, it would be listed in Garrabrant's two tables of commands, which it is not. *Id.* at 24–25.

Petitioner counters that Garrabrant's description of "a 'lost' message" refers to "a control message *named* 'lost.'" Pet. Reply 7. Petitioner emphasizes Garrabrant's disclosure that "the rejection window [is] updated in response to the receipt of a 'lost' message." *Id.* With respect to the tables of commands, Petitioner argues that "Garrabrant never states that the messages in the tables are the 'only' commands allowed" and that "Garrabrant never excludes other commands from being present." *Id.* at 8. Petitioner concludes that "[Patent] Owner's argument does not preclude either of these types of command messages from transmitting the 'lost' message." *Id.* at 9.

In light of the arguments and evidence, we are not persuaded that Petitioner has demonstrated, by a preponderance of the evidence, that Garrabrant discloses a control message named "lost." Garrabrant describes the rejection window in Figure 8B as having been "updated in response to the receipt of a 'lost' message." Ex. 1002, 10:24–28. Later in the same paragraph, however, Garrabrant states explicitly that valid window 174 is updated "[w]hen packet 7 eventually arrives . . . and is accepted by the destination unit." *Id.* at 10:37–42. Together, the two sentences imply that packet 7 is the "lost" message referred to at column 10, line 28. Garrabrant, however, describes only packets 2 through 6—not packet 7—as lost (*Id.* at 10:30), which implies that packet 7 is not a "lost" message. We note, however, that Garrabrant describes packets 2 through 6 as lost (without quotes). *Id.* at (10:28–30 ("In FIG. 8A it is assumed that out of 8 packets sent, packets 0 and 1 were successfully received to define the "valid" window 164 and packets 2 through 6 were lost."). We, therefore, interpret Garrabrant's use of lost (without quotes) to mean truly lost (i.e., never received by the receiver), and its use of "lost" (with quotes) to mean transmitted but not yet received, as packet 7 is at the time depicted in Figure 8A. As a result, we agree with Patent Owner that Garrabrant discloses updating the window in response to packet 7, and does not disclose a separate control message named "lost." Because we are not persuaded that Garrabrant discloses a control message named "lost," we are not persuaded that Garrabrant discloses "causing an addressed device to execute a specific control function," as required by our construction of "commanding."

Our determination is supported by the fact that Petitioner's contention that a separate "lost" message is received before packet 7 is inconsistent with the disclosure in Garrabrant. If we were to accept Petitioner's contention that the described "lost" message is a separate control message that updates the valid window as shown in Figure 8B, then valid window 174 shown in Figure 8B would be set to allow only packets 8 through 23 before packet 7 arrived and, therefore, packet 7 would not be "accepted by the destination unit" when it "eventually arrives," as Garrabrant states. Ex. 1002, Fig. 8B, 10:39–42. Casting further doubt upon Petitioner's contention that the described "lost" message is a control message is the omission of any such message from the tables of commands disclosed in Garrabrant. *Id.* at 6:5–45.

Conclusion

We are not persuaded that Petitioner has demonstrated, by a preponderance of the evidence, that claim 1 is unpatentable as anticipated by Garrabrant.

D. Claim 1 – Anticipation by Hettich

Petitioner argues that claim 1 is unpatentable under 35 U.S.C. § 102(b) as anticipated by Hettich. Pet. 37–41. In support of this ground of unpatentability, Petitioner provides detailed explanations as to how each claim limitation is disclosed by Hettich, and relies upon the Declaration of Dr. Bims (Ex. 1006). *Id.* (citing Ex. 1006 ¶¶ 79–90).

Patent Owner argues that claim 1 is not anticipated by Hettich because Hettich does not disclose (1) "commanding a receiver to . . . receive," as recited in claim 1; (2) "commanding a receiver to . . . release," as recited in claim 1; and (3) "discarding all packets for which acknowledgment has not been received, and which have sequence numbers prior to the at least one packet," as recited in claim 1. PO Resp. 37–46.

Upon consideration of the parties' contentions and supporting evidence, we determine that Petitioner has demonstrated, by a preponderance of the evidence, that claim 1 is anticipated by Hettich.

Hettich (Exhibit 1007)

Hettich describes a new link access protocol based on known ARQ protocols and adjusted for the special requirements of the Mobile Broadband System ("MBS") project. Ex. 1007, 4–5. Specifically, Hettich discloses an Adaptive Selective Repeat ("ASR") ARQ protocol that is a modified Selective Reject ("SR") ARQ and uses a Selective Reject (SREJ) PDU to request an individual frame again. *Id.* at 29–30. Hettich further discloses a Delay PDU that "is used to inform receivers that cells have been discarded." *Id.* at 34. The Delay PDU "is sent in the opposite direction instead of an acknowledgement"—i.e., from transmitter to receiver—and has RN (the lowest frame number that has not been received correctly yet) set equal to SN, where SN is the highest number of all of the discarded cells. *Id.* at 28, 34. If the receiver receives a Delay PDU, it stops waiting for cells with sequence numbers less than or equal

to RN. *Id.* at 35. The receiver then shifts its window and issues a corresponding acknowledgement. *Id.*

Analysis

Independent claim 1 recites

> a transmitter in the data network commanding a receiver in the data network to a) receive at least one packet having a sequence number that is not consecutive with a sequence number of a previously received packet and b) release any expectation of receiving outstanding packets having sequence numbers prior to the at least one packet.

Petitioner relies upon Hettich's disclosure of a Delay PDU that commands a receiver to shift its window, thereby releasing any expectation of receiving packets having sequence numbers less than or equal to SN and allowing the receiver to receive packets with sequence numbers greater than SN. Pet. 34–35.

Claim 1 also recites "the transmitter discarding all packets for which acknowledgment has not been received, and which have sequence numbers prior to the at least one packet." Petitioner relies upon Hettich's disclosure that the transmitter sets RN=SN in the Delay PDU, where "*SN* is the highest number of all the discarded cells," and "there cannot be valid (not discarded) cells with lower sequence numbers." *Id.* at 34. Thus, the transmitter discards all packets with sequence numbers below SN.

We are persuaded that the evidence cited by Petitioner supports Petitioner's contentions. Patent Owner presents several arguments as to why Hettich does not teach all of the limitations of the claims. PO Resp. 37–46. Petitioner responds to these arguments. Pet. Reply 11–13. We address each argument in turn below.

"commanding a receiver to receive"

Patent Owner argues that, "the Delay PDU causes Hettich's receiver to 'stop[] waiting for cells,'" but "does not 'command' or 'order' the receiver to accept any packet, as required by the claim language." PO Resp. 39. According to Patent Owner, "[t]hat the receiver moves its window forward to allow it 'to receive a packet after SN' shows that the receiver, not the transmitter controls packet reception."

Petitioner counters that "claim 1 does not require identifying a specific sequence number. Nor does it require that the next received packet have that specific sequence number. Claim 1 only requires that there be a command to receive 'at least one packet,' which in Hettich are sequence numbers to N+1, N+2, N+3, etc." Pet. Reply 11.

We find Petitioner's arguments persuasive. Receipt of a Delay PDU causes Hettich's receiver to "shift[] the window." Ex. 1007, 35. As a result of that shift, Hettich's receiver will accept a packet, such as N+2 or N+3, that has "a sequence number that is not consecutive with a sequence number of a previously received packet," as required by claim 1. Pet. Reply 11; Ex. 1007, 35–36.

Patent Owner's argument that the receiver controls packet reception because it moves its window forward is not persuasive because it does so in response to Hettich's Delay PDU sent by the transmitter.

"commanding a receiver to release"

Patent Owner argues that "a Delay PDU does not command a receiver to release expectations of receiving outstanding packets having a sequence number *prior to* a received out of sequence packet" because it "merely release[s] expectation of receiving outstanding packets having sequence numbers equal to or less than the sequence number of the Delay PDU, not packets having sequence numbers prior to the out of sequence packet." PO Resp. 40. Patent Owner argues that, in Hettich, it is possible for the next packet received by the receiver to have a non-sequential SN. *Id.* at 40–41. Patent Owner then acknowledges that the next packet received by the receiver could be sequential, but argues that a person of ordinary skill in the art would not expect it to be. *Id.* at 41–42.

Petitioner counters that Hettich's "transmitter would be able to send the DELAY N command and then send packet N+1 next, and this would be readily understood." Pet. Reply 12. Petitioner also argues that, "[a]t a minimum, Hettich implicitly discloses (and certainly does not exclude) sending N+1 as the next packet." *Id.* Finally, Petitioner argues that "claim 1 does not require the next packet actually sent to have any particular sequence number, only that the receiver be ready to receive 'at least one packet' not consecutive with a previously received packet (such as

N+1) and release expectations of receiving prior packets (such as N, N-1, etc.)." *Id.*

Although this limitation is amenable to two interpretations, we find Petitioner's arguments persuasive under both. To the extent that this limitation is construed to require releasing expectation of *all* packets having a sequence number prior to the received out of sequent packet, Hettich teaches that the Delay PDU—*i.e.,* the out of sequence packet—commands the receiver to release expectation of receiving packets having a sequence number lower than SN by instructing the receiver that cells with sequence numbers less than SN have been discarded. Ex. 1007, 34. Patent Owner concedes that the Delay PDU "release[s] expectation of receiving outstanding packets having sequence numbers *equal to or less than* the sequence number of the Delay PDU." PO Resp. 40 (emphasis added). Thus, when SN is equal to the sequence number of the Delay PDU, the receiver "release[s] any expectation of receiving outstanding packets having sequence numbers prior to the at least one packet [i.e., the Delay PDU]," as recited in claim 1. Ex. 1007, 34–36. To the extent that this limitation is construed to require releasing expectation of receiving *at least some* outstanding packets, Hettich's Delay PDU does so when SN is less than the sequence number of the Delay PDU. *Id.*

With respect to whether the next packet would be sequential, claim 1 does not require that the next received packet have a particular sequence number. It requires only that that packet's sequence number "is not consecutive with a sequence number of a previously received packet."

As a result, Patent Owner's arguments are not persuasive because they are not commensurate with the limitations of the claim.

Discarding unacknowledged packets

Patent Owner argues that, "Hettich is silent as to whether acknowledgment has been received for any of the non-discarded cells having sequence numbers between the Delay PDU and the next received out of order packet." PO Resp. 43. According to Patent Owner, "the transmitter in Hettich may contain one or more nondiscarded cells for which acknowledgement has not been received, and which have sequence numbers prior to the first cell that the receiver received after reception of the Delay PDU." *Id.*

Petitioner counters that "[w]hile possible, it is understood that the transmitter could send DELAY N and then send packet N+1." Pet. Reply 13. According to Petitioner, "as long as the transmitter discards packets meeting the conditions of claim 1, claim 1 is met whether or not the transmitter discards other packets." *Id.* We find Petitioner's arguments to be persuasive. Hettich discloses that the "[t]he Delay PDU is used to inform receivers that cells have been discarded." Ex. 1007, 34. "SN is the highest number of all of the discarded cells." *Id.* Thus, Hettich discloses that the transmitter discards all packets having sequence numbers less than or equal to SN. Patent Owner concedes that SN may be the sequence number of the Delay PDU itself. PO Resp. 40 (the Delay PDU "release[s] expectation of receiving outstanding packets having sequence numbers *equal to or less than* the

sequence number of the Delay PDU." (emphasis added)). Thus, Hettich discloses "discarding all packets . . . which have sequence numbers prior to the at least one packet [i.e., the Delay PDU]" because the transmitter discards *all* packets that have a sequence number prior to the Delay PDU. It discards all packets that have a sequence number prior to the Delay PDU, including, *inter alia*, those "for which acknowledgement has not been received," as required by claim 1. Thus, we are persuaded that Hettich discloses the limitation.

Conclusion

We determine that Petitioner has established, by a preponderance of evidence, that Hettich anticipates claim 1.

E. Claim 1 – Obviousness over Walke

Petitioner argues that claim 1 is unpatentable under 35 U.S.C. § 103(a) as obvious over Adams. Pet. 41–47. In support of this ground of unpatentability, Petitioner provides detailed explanations as to how each claim limitation is taught or suggested by Walke, and relies upon the Declaration of Dr. Bims. *Id.* (citing Ex. 1006 ¶¶ 91–99).

Patent Owner argues that claim 1 is not obvious over Walke because Walke does not disclose (1) "commanding a receiver to . . . receive," as recited in claim 1; (2) "commanding a receiver to . . . release," as recited in claim 1; and (3) "discarding all packets for which acknowledgment has not been received, and which have

sequence numbers prior to the at least one packet," as recited in claim 1. PO Resp. 46–54.

Upon consideration of the parties' contentions and supporting evidence, we determine that Petitioner has not demonstrated, by a preponderance of the evidence, that claim 1 is obvious over Walke.

Walke (Exhibit 1008)

Walke describes a mobile communication system in which Asynchronous Transfer Mode ("ATM") network cells can be transmitted via a radio interface with a quality of service comparable to that achieved ordinarily by a fixed network of similar capacity. Ex. 1008, col. 3. Walke discloses "specific measures to ensure that the required connection-specific quality of service parameters 'maximum ATM cell-loss rate' and 'maximum ATM cell delay' are complied with," namely, "error-correction processes involving automatic repeat request (ARQ) processes." *Id.* The error correction process according to the invention uses an improved selective repeat (SR) algorithm by using a Selective Reject (SREJ) order to request retransmission of individual ATM cells. *Id.* at col. 11. In one embodiment of the error correction process, the sending station can reject ATM cells that have exceeded their maximum permitted delay. If a receiver issues a retransmission request for an ATM cell, but the cell reaches its maximum delay in the meantime, the sender rejects the ATM cell. *Id.* at col. 12. The sender informs the receiver that this ATM cell will not be retransmitted by using a delay order, which is treated as an acknowledgement, but is generated by the

Appendix I

sender and sent to the receiver. *Id.* at cols. 12–13. The receipt sequence number N(R) in this command is set to the sequence number of the rejected ATM cell. *Id.* The delay command is piggybacked by an N frame and, as a result, the N frame becomes a delay frame. *Id.*

Figure 9 of Walke is reproduced below.

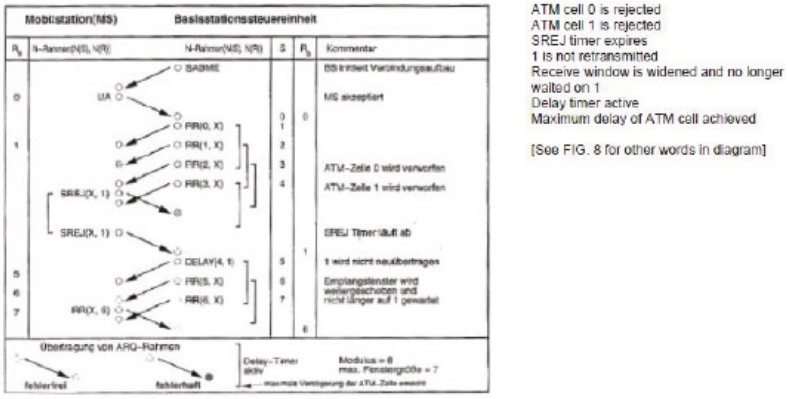


FIG. 9: Treatment of rejected ATM cells

Figure 9 shows an exemplary protocol sequence showing the treatment of outdated ATM cells. *Id.* at cols. 12–13. ATM cell RR(0, X) is received correctly. *Id.* ATM cell RR(1, X) is not received correctly. ATM cell RR(2, X) is received correctly. *Id.* The receiver sends a selective reject message SREJ(X, 1) indicating that ATM cell RR(1, X) was not received. *Id.* The transmitter decides to discard ATM cell RR(1, X) so it sends DELAY(4, 1) to the receiver. The DELAY message "tells the receiver not to wait for anything else on frame 1 and it is able to widen its receive window." *Id.* at col. 13.

Appendix I

Analysis

Independent claim 1 recites

> a transmitter in the data network commanding a receiver in the data network to a) receive at least one packet having a sequence number that is not consecutive with a sequence number of a previously received packet and b) release any expectation of receiving outstanding packets having sequence numbers prior to the at least one packet.

Petitioner relies upon Walke's teaching of a DELAY message that instructs the receiver to receive a packet (i.e., packet #4 in the example of Figure 9) and release expectation of receiving an outstanding packet (i.e., packet #1 in the example of Figure 9) having a sequence number prior to the at least one packet. Pet. 44–46 (citing Ex. 1008, cols. 12–13 (Section 2.6)). Petitioner provides an example and acknowledges that, "[i]n this example . . . the DELAY (4,1) message causes the receiver to release packet #1, but not packets #2 and #3 (and thus not 'all packets . . . [that] have sequence numbers prior to the at least one packet' as recited in Claim 1 of the '625 patent)." Pet. 44. Petitioner argues, however, that one of ordinary skill in the art would understand that Walke discloses the claimed method under certain conditions—i.e., where the DELAY message is DELAY(n, n-1). Pet. 44–45, 47.

Patent Owner argues that "Walke does not disclose a receiver releasing any expectation of receiving outstanding

packets because the Walke Delay message addresses only a single packet." PO Resp. 49. According to Patent Owner, "[i]f multiple outstanding packets having sequence numbers between the discarded packet identified by the Delay message and the first received message exist, the Delay message would not have released any expectation of receiving those outstanding packets." *Id.*

Petitioner counters that Walke performs the method in certain circumstances and that, "a method claim is anticipated whenever the method is performed, no matter how frequently." Pet. Reply 14 ("For example, when Delay (4, 3) is sent and only packet #3 is outstanding, the method of releasing expectation of receiving "all" outstanding packets below #4 (*i.e.*, #3) is met.").

We are persuaded by Patent Owner's argument. Because Walke's DELAY message identifies only a single packet, it is a command to release any expectation of receiving only one packet having a particular sequence number, not a command "release any expectation of receiving outstanding *packets* [plural] having sequence numbers prior to the at least one packet," as required by claim 1 (emphasis added).

Conclusion

We are persuaded that Petitioner has not demonstrated, by a preponderance of the evidence, that claim 1 is unpatentable as obvious over Walke.

F. Patent Owner's Motion to Amend

Patent Owner moves to substitute claim 20 for challenged claim 1 if we find claim 1 unpatentable. Mot. to Amend 1. As stated above, we determine that Petitioner has demonstrated by a preponderance of the evidence that claim 1 is unpatentable. Therefore, Patent Owner's Motion to Amend is before us for consideration. For the reasons set forth below, Patent Owner's Motion to Amend is *denied*.

Proposed substitute claim 20 is reproduced below:

> 20. (Proposed substitute for Original claim 1) A method for discarding packets in a data network employing a packet transfer protocol including an automatic repeat request scheme, comprising the steps of:
>
> a transmitter in the data network commanding a receiver having a receiver window in the data network to a) receive at least one packet having a sequence number that is not consecutive with a sequence number of a previously received packet, wherein the sequence number of the at least one packet is outside of the receiver window and
>
> b) release any expectation of receiving outstanding packets having sequence numbers prior to the at least one packet; and

> the transmitter discarding all packets for which acknowledgment has not been received, and which have sequence numbers prior to the at least one packet.

Mot. to Amend 1–2.

As the moving party, Patent Owner bears the burden of proof to establish that it is entitled to the relief requested. 37 C.F.R. § 42.20(c). Therefore, Patent Owner's proposed substitute claims are not entered automatically, but only upon Patent Owner having demonstrated by a preponderance of the evidence the patentability of those substitute claims. *See, e.g.*, 37 C.F.R. § 42.1(d) (noting that the "default evidentiary standard [in proceedings before the Board] is a preponderance of the evidence").

1. Written Description Support

A motion to amend claims must identify clearly the written description support for each proposed substitute claim. 37 C.F.R. § 42.121(b). The requirement that the motion to amend must set forth the support in the original disclosure of the patent is with respect to *each claim*, not for a particular feature of a proposed substitute claim. The written description test is whether the original disclosure of the application relied upon reasonably conveys to a person of ordinary skill in the art that the inventor had possession of the claimed subject matter as of the filing date. *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). Thus, the motion should account for the claimed subject matter as a whole,

i.e., the *entire* proposed substitute claim, when showing where there is sufficient written description support for each claim feature. *See Nichia Corp. v. Emcore Corp.*, Case IPR2012-00005, slip op. at 4 (PTAB June 3, 2013) (Paper 27).

In its Motion to Amend, Patent Owner addresses the written description support for the claimed subject matter as a whole. Mot. to Amend 4–8. For the added "wherein" clause, Patent Owner cites two portions of the '625 patent. *Id.* at 6. Petitioner argues that neither passage describes reception of a packet outside of the receiver window. Opp. to Mot. to Amend 4–6. Patent Owner counters that Petitioner's argument "is premised on the faulty assumption that the receiver and transmitter windows must be of identical size W." PO Reply 1–2. We, however, find Petitioner's arguments persuasive.

In the first passage cited by Patent Owner, the '625 patent describes reception of a packet *within* the receiver window (Ex. 1001, 6:32–36 ("If the difference between N(S) and ESN (for example, ESN1 is less than 2k-1"), not reception of a packet *outside* of the receiver window. Patent Owner's expert, Dr. Akl, testified that the receiver window size may not equal the transmitter window size (Opp. to Mot. to Amend 5 (citing Ex. 1021, 116:3–118:19)), and Patent Owner argues the same (PO Reply 1–2), but this contention is undermined by Patent Owner's acknowledgement that "[t]he receiver and the transmitter must use the same arbitrary value for W so that the receiver knows which packets to properly receive." PO Reply 1. As a result, we are not persuaded that column

6, lines 32 to 36 of the '625 patent support the proposed "wherein clause."

With respect to the second passage cited by Patent Owner, we agree with Petitioner that "[t]his disclosure simply describes having a receiver window size of up to 2k-1 positions; it does *not* describe receiving a packet *outside* the receiver window." Opp. to Mot. to Amend 6.

Accordingly, we are not persuaded that Patent Owner has shown adequate written description support for the proposed amendment.

2. Patentability over Prior Art

The patent owner bears the burden of proof in demonstrating patentability of the proposed substitute claims over the prior art in general, and, thus, entitlement to add these claims to its patent. *See Idle Free*, Paper 26 at 7. In a motion to amend, the patent owner must show that the conditions for novelty and non-obviousness are met with respect to the prior art available to one of ordinary skill in the art at the time of the invention. With regard to obviousness as the basis of potential unpatentability of the proposed substitute claims, the patent owner should present and discuss facts which are pertinent to the first three underlying factual inquiries of *Graham*: (1) the scope and content of the prior art, (2) differences between the claimed subject matter and the prior art, and (3) the level of ordinary skill in the art, *with special focus on the new claim features* added by the proposed substitute claims. *See Graham v. John Deere Co.*, 383 U.S.

1, 17–18 (1966). The patent owner should identify each new claim feature, and come forward with technical facts and reasoning about that particular feature. Some discussion and analysis should be made about the specific technical disclosure of the closest prior art as to each particular feature, and the level of ordinary skill in the art, in terms of ordinary creativity and the basic skill set of a person of ordinary skill in the art, regarding the feature.

Here, we are unpersuaded that Patent Owner has demonstrated, by a preponderance of the evidence, that the proposed substitute claims are patentable. Specifically, we are not persuaded that the proposed substitute claims are patentable over the combination of Hettich and Vornefeld.

Patent Owner argues that Vornefeld does not anticipate proposed substitute claim 20 because it "creates rather than releases expectation of cells having a lower sequence number." Mot. to Amend 11. It also does not render obvious proposed substitute claim 20, according to Patent Owner, because "one ordinary skill in the art would not combine a reference such as Vornefeld that creates expectations with a reference that releases expectations of receiving cells having lower sequence numbers." *Id.*

Petitioner counters that "[Patent] Owner admits that the concept of receiving packets outside a receiver window is not, by itself, novel, and identifies this mechanism in Vornefeld" and that Patent Owner's expert, Dr. Akl, "testified that it is inherent that one of skill in the art would know to transmit a packet outside the receiver

window." Opp. to Mot. to Amend 7 (citing Mot. to Amend 10; Ex. 1021, 129:4–14, 144:12–144:5). Moreover, according to Petitioner, Vornefeld does not merely "create expectation of cells having a lower sequence number," as Patent Owner contends. Rather, it teaches releasing expectation of receiving at least one outstanding I-frame that has a sequence number prior to the most recently received I-frame. *Id.* at 7–9.

Patent Owner replies that proposed substitute claim 20 is not anticipated by Vornefeld. PO Reply 2–4. Patent Owner argues that because "Vornefeld['s] receiver in Fig. 5.3 continues to wait for SN2, expectations for all outstanding packets are not released." *Id.* at 3. According to Patent Owner, "[t]he Vornefeld receiver cannot release expectations for outstanding cells because the upper layers in the receiver may require those outstanding cells." *Id.* Finally, Patent Owner argues that Broadcom has failed to rebut Patent Owner's showing of patentability because "Broadcom ignores many limitations of the amended claim, including the "releasing" limitation, the "discarding limitation," and the "transmitter limitations." *Id.*

We find Petitioner's arguments persuasive. Patent Owner acknowledges that the "concept of receiving packets outside a receiver window is not, by itself, novel," and cites Vornefeld as an example. Mot. to Amend 10. Because the added feature is not novel, we must analyze whether proposed substitute claim 20 would have been non-obvious over Vornefeld and other known prior art, such as Hettich.

We are not persuaded by Patent Owner's argument that a person of ordinary skill in the art would not have combined Vornfeled with a reference such as Hettich. Specifically, we are not persuaded that Vornefeld "creates rather than releases expectation of cells having a lower sequence number" (Mot. to Amend 10), because Vornefeld's mechanism does result in releasing any expectation of outstanding packets having sequence numbers prior to the at least one packet (Opp. to Mot. to Amend 7–9).

We also are not persuaded by Patent Owner's arguments that proposed substitute claim 20 is "not anticipated by Vornefeld" (PO Reply 2) because anticipation is not the sole inquiry with respect to patentability; we also consider non-obviousness. For the same reasons, we are not persuaded by Patent Owner's argument that "Broadcom ignores many limitations of the amended claims, including the 'releasing' limitation, the 'discarding limitation,' and the 'transmitter limitations.'" PO Reply 3. As discussed above, we are persuaded that these other limitations are taught by Hettich.

Finally, we are not persuaded by Patent Owner's argument that Vornefeld does not release expectations for "all" outstanding packets (PO Reply 3) because proposed substitute claim 20 does not require releasing expectations for "all" outstanding packets.

3. Conclusion

For the foregoing reasons, Patent Owner has not, in its Motion to Amend, satisfied its burden of proof.

III. CONCLUSION

Petitioner has demonstrated, by a preponderance of the evidence, that claim 1 of the '625 patent is unpatentable under 35 U.S.C. § 102(b) as anticipated by Hettich. Petitoner's Motion to Amend is denied.

IV. ORDER

Accordingly, it is

ORDERED that claim 1 of the '625 patent is held unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Amend is *denied*; and

FURTHER ORDERED that, because this is a Final Written Decision, the parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

APPENDIX J — FINAL WRITTEN DECISION OF THE UNITED STATES PATENT AND TRADEMARK OFFICE, PATENT TRIAL AND APPEAL BOARD, DATED MARCH 6, 2015

UNITED STATES PATENT
AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL
AND APPEAL BOARD

BROADCOM CORPORATION,

Petitioner,

v.

WI-FI ONE, LLC,

Patent Owner.

Case IPR2013-00602
Patent 6,466,568 B1

Before KARL D. EASTHOM, KALYAN K. DESHPANDE, and MATTHEW R. CLEMENTS, *Administrative Patent Judges.*

CLEMENTS, *Administrative Patent Judge.*

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

Appendix J

I. INTRODUCTION

Broadcom Corporation ("Petitioner") filed a Petition requesting *inter partes* review of claims 1–6 (the "challenged claims") of U.S. Patent No. 6,466,568 B1 (Ex. 1001, "the '568 patent"). Paper 2 ("Pet."). Telefonaktiebolaget L. M. Ericsson[1] ("Patent Owner") filed an election to waive its Preliminary Response. Paper 20. On March 10, 2014, we instituted an *inter partes* review of all challenged claims on certain grounds of unpatentability alleged in the Petition. Paper 27 ("Dec. to Inst.").

After institution of trial, Patent Owner filed a Patent Owner Response (Paper 36, "PO Resp.") and a Motion to Amend (Paper 38, "Mot. to Amend"). Petitioner filed a Reply (Paper 46, "Pet. Reply") and an Opposition to Patent Owner's Motion to Amend (Paper 47, "Opp. to Mot. To Amend"). Patent Owner then filed a Reply to Petitioner's Opposition to its Motion to Amend. Paper 49 ("PO Reply). Oral hearing was held on December 8, 2014.[2]

The Board has jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73.

---

1. On July 11, 2014, Patent Owner filed an Updated Mandatory Notice indicating that the '568 patent had been assigned to Wi-Fi One, LLC, and that Wi-Fi One, LLC and PanOptis Patent Management, LLC were now the real parties-in-interest. Paper 40.

2. A transcript of the oral hearing is included in the record as Paper 59.

Petitioner has shown, by a preponderance of the evidence, that claims 1–6 of the '568 patent are unpatentable. Petitioner's Motion to Amend is denied.

A. Related Proceedings

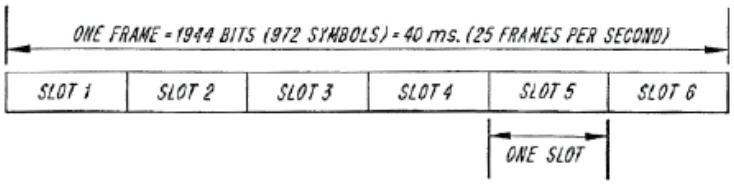
Petitioner and Patent Owner indicate that the '568 patent is involved in a case captioned *Ericsson Inc.,. v. D-LINK Corp.,* Civil Action No. 6:10-cv-473 (E.D. Tex.) ("D-Link Lawsuit"). Pet. 1–2; Paper 6, 1. Patent Owner also identifies an appeal at the Federal Circuit captioned *Ericsson Inc., v. D-LINK Corp.,* Case Nos. 2013-1625, -1631, -1632, and -1633. Paper 6, 1. Petitioner also filed two petitions for *inter partes* review of related patents: IPR2013-00601 (U.S. Patent No. 6,772,215) and IPR2013-00636 (U.S. Patent No. 6,424,625).

B. The '568 patent

The '568 patent relates generally to radio communications systems, such as cellular or satellite systems, that use digital traffic channels in a multiple access scheme, such as time division multiple access ("TDMA") or code division multiple access ("CDMA"). Ex. 1001, 1:13–17.

Figure 2 of the '568 patent is reproduced below.

FIG. 2



Appendix J

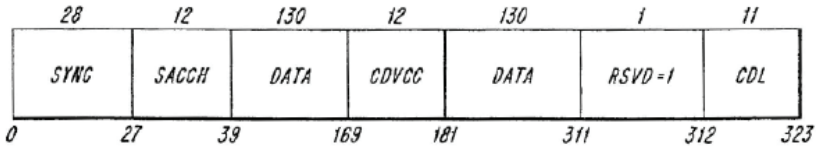
Figure 2 depicts how, in a TDMA system, the consecutive time slots on a radio channel are organized in TDMA frames of, for example, six slots each so that a plurality of distinct channels can be supported by a single radio carrier frequency. *Id.* at 5:11–15. Each TDMA frame has a duration of 40 milliseconds and supports six half-rate logical channels, three full-rate logical channels, or greater bandwidth channels as indicated in the table below:

Number of Slots	Used Slots	Rate
1	1	half
2	1, 4	full
4	1, 4, 2, 5	double
6	1, 4, 2, 5, 3, 6	triple

As shown in the table, a full-rate digital traffic channel ("DTC"), for example, uses two slots of each TDMA frame—i.e., the first and fourth, second and fifth, or third and sixth. *Id.* at 2:8–11.

A conventional downlink DTC slot format is defined as shown in Figure 3, reproduced below.

FIG. 3
PRIOR ART



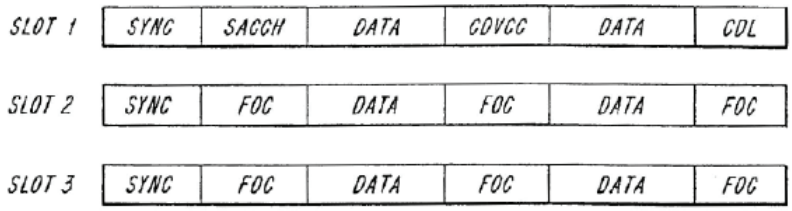
Appendix J

As shown in Figure 3, a slot includes a SYNC field, SACCH field, two DATA fields used to transmit the "payload" of the slot, a CDVCC field, and a reserved bit CDL field. *Id.* at 5:31–47. Conventionally, this format is used for each time slot in a TDMA frame—i.e., all six time slots. *Id.* at 5:47–49. However, if a mobile station is using a triple rate downlink connection—i.e., it is reading the DATA fields of each of time slots 1, 2, and 3—some of the other fields provided in the conventional downlink time slot of Figure 3 need not be transmitted in each time slot. *Id.* at 6:66–7:4. For example, a mobile station need not receive SACCH at triple rate; that is, a mobile station may only need to receive one SACCH for every three time slots. *Id.* at 7:4–8. Likewise, the CDVCC field need not be transmitted by the base station at triple rate. *Id.* at 7:10–17.

To address these issues, the '568 patent discloses an alternative slot format to accommodate the different communication services described above. *Id.* at 5:50–52.

Figure 6 is reproduced below.

FIG. 6



As illustrated in Figure 6, in one embodiment of the invention, the fields that are conventionally used for

SACCH and CDVCC information in slots 2 and 3 can be replaced by FOC information. *Id.* at Fig. 6, 7:8–10. Omitting these fields in time slots 2 and 3 (as well as 5 and 6) provides an opportunity to inform other mobile stations of information pertaining to their uplink connections. *Id.* at 7:21–25. For example, the FOC fields can be used to inform another mobile station that a previously transmitted packet was not properly received and should be retransmitted. *Id.* at 7:26–29.

According to another embodiment of the invention, the FOC may serve the purpose of a service type identifier by providing information relating to the same connection as the payload or data field in that time slot, such as a service type identifier that informs the mobile or base station of the type of information (e.g., voice, video, or data) being conveyed in the payload. *Id.* at 3:11–16, 9:27–32. This information can be used by the receiving equipment to aid in processing the information conveyed in the payload. *Id.* at 3:16–19. For example, in a multimedia connection, the information being transferred may rapidly vary between voice, data, and video. *Id.* at 9:32–34. In such a case, the FOC can inform a mobile station of the type of information being transmitted so that the mobile station will know how to process the received information. *Id.* at 9:35–38.

C. Illustrative Claim

Of the challenged claims, claim 1 is independent. Claim 1 is reproduced below:

1. A communication station comprising:

> a processor for arranging information for transmission including providing at least one first field in which payload information is disposed and providing at least one second field, separate from said first field, which includes a service type identifier which identifies a type of payload information provided in said at least one first field; and
>
> a transmitter for transmitting information received from said processor including said at least one first field and said at least one second field.

D. Prior Art Supporting the Instituted Grounds

The following prior art was asserted in the instituted grounds:

Morley US 5,488,610 Jan. 30, 1996 Ex. 1002

Adams US 5,541,662 July 30, 1996 Ex. 1006

E. The Instituted Grounds of Unpatentability

The following table summarizes the challenges to patentability on which we instituted *inter partes* review:

Reference	**Basis**	**Claims challenged**
Morley	§ 102	1–6
Adams	§ 103	1–6

II. ANALYSIS

A. 35 U.S.C. § 315(b)

Patent Owner argues that "Petitioner is subject to the 35 U.S.C. § 315(b) bar as a privy to the D-Link Defendants, and because the D-Link Defendants are real parties-in-interest to this action, despite Petitioner's failure to designate them as such under 35 U.S.C. § 312(a)(2)." PO Resp. 8. According to Patent Owner, Petitioner is in privity with defendants named in the D-Link Lawsuit (*Ericsson Inc. v. D-Link Corp.*, 6:10-cv-473) because, *inter alia*, "[Petitioner] has an indemnity relationship with Dell and Toshiba." *Id.* at 8–12. Patent Owner also argues that the defendants named in the D-Link Lawsuit (the "D-Link Defendants") are real parties-in-interest to this proceeding because Petitioner has a "substantive legal relationship with at least Dell and Toshiba," Petitioner used the same prior art references as the D-Link Defendants, and the Petition was filed after the D-Link Defendants abandoned their invalidity case regarding the '568 patent in the D-Link Lawsuit. *Id.* at 12–14.

Petitioner counters that "[Patent] Owner has raised this identical argument twice, and failed each time," and that "[t]his third attempt relies on exactly the same arguments [Patent] Owner made to this Board and the Federal Circuit and should be rejected for the same reasons." Pet. Reply 1. Petitioner continues that, "[Patent] Owner offers no new reason whatsoever for this Board to reverse its prior decision that [Patent] Owner's proferred 'evidence' and legal authorities fail to amount

to anything more than 'speculation' or 'a mere possibility' that [Petitioner] is in privity with the DLink Defendants or that the D-Link Defendants are real parties-in-interest." *Id.* We find Petitioner's arguments persuasive.

Patent Owner's arguments and evidence are not different substantively from the arguments and evidence presented in its Motion for Additional Discovery (Paper 11). The arguments and evidence are unpersuasive for same reasons explained in our Decision on Patent Owner's Motion for Additional Discovery (Paper 21), which we adopt and incorporate by reference.

B. Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are interpreted according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *see also In re Cuozzo Speed Technologies, LLC*, No. 2014-1301, 2015 WL 448667, at *5–*8 (Fed. Cir. Feb. 4, 2015) ("Congress implicitly adopted the broadest reasonable interpretation standard in enacting the AIA," and "the standard was properly adopted by PTO regulation."). Under the broadest reasonable interpretation standard, claim terms are given their ordinary and customary meaning as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). An inventor may rebut that presumption by providing a definition of the term in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475,

1480 (Fed. Cir. 1994). In the absence of such a definition, limitations are not to be read from the specification into the claims. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

Independent claim 1 recites "a service type identifier which identifies a type of payload information." Petitioner proposes that this phrase be construed as "an identifier that identifies the type of information conveyed in the payload. Examples of types of information include, but are not limited to, video, voice, data, and multimedia." Pet. 7–8. Petitioner argues that this construction is consistent with the broadest reasonable construction in light of the specification and is consistent with how the term "service" is used in the '568 patent. *Id.* Petitioner further argues that, during prosecution of the '568 patent, Patent Owner distinguished the recited "service type identifier" from a prior art identifier that identified "transmission characteristics." *Id.* At 8 (citing Ex. 1016, 5 (distinguishing the claimed service type identifier as "claiming the use of a field to identify the type of payload information *and not the type of channel coding*.") (emphasis added)). Thus, according to Petitioner, the recited "service type identifier" cannot encompass identifiers of "transmission characteristics" such as channel coding. *Id.*

The language of claim 1 requires that the "service type identifier" identify only "a type of payload information provided in said at least one first field." The '568 patent states the following:

> In addition to voice information being transmitted on the traffic channels, various other types of data can and will be transmitted thereon. For example, facsimile (fax) transmissions are commonly supported by radiocommunication systems. Similarly, packet data transmissions, which divide information streams into packets rather than providing dedicated (i.e., "connection-oriented") channels for each information stream, will be supported in radiocommunication systems. Other types of information transmission, e.g., video or hybrid voice, data and video to support internet connections, will likely be supported in the future.
>
> These various types of information communication (also referred to herein as different "*services*") will likely have different optimal transmission characteristics.

Ex. 1001, 2:25–30 (emphasis added). Thus, the '568 patent uses the term "services" to refer to "various types of information communication" and listsexplicitly "facsimile (fax) transmissions . . . , packet data transmissions, . . . [and o]ther types of information transmission, e.g., video or hybrid voice, data and video to support internet connections." *Id.* Accordingly, in the Decision to Institute, we construed "service type identifier" to mean an identifier that identifies the type of information conveyed in the payload, including but not limited to video, voice, data, and multimedia.

Patent Owner argues that our construction is "inconsistent with the intrinsic evidence as it gives no meaning to 'service type' and is therefore unreasonable." PO Resp. 21. Specifically, Patent Owner contends that our construction reads out the requirement that the service type identifier identify a "service type." *Id.* According to Patent Owner, the broadest reasonable construction of "service type identifier which identifies a type of payload information" is "an identifier that identifies a transmission characteristic of the service and the type of information conveyed in the payload." *Id.* at 21–23.

Petitioner counters that "the phrase 'of the service' lacks antecedent basis," and that "neither such occurrence [of the term 'service type identifier' in the Specification] supports [Patent] Owner's proposed construction. Pet. Reply 5.

We find Petitioner's arguments persuasive. Neither instance of "service type identifier" in the '568 patent suggests that a "service type identifier" must identify a transmission characteristic. The first instance describes the "service type identifier" as identifying only "the type of information." Ex. 1001, 3:11–19 ("a service type identifier which informs the mobile or base station of the type of information (e.g., voice, video or data) being conveyed in the payload."). The second instance describes how "the FOC fields may also serve the purpose of the service type identifier." *Id.* at 9:28–29. In this embodiment, "the FOC [i.e., service type identifier] can provide information regarding the type of service which the associated payload is currently supporting, the channel coding *and/*

or interleaving associated therewith." *Id.* at 9:29–32 (emphasis added). The use of "and/or" makes clear that a "service type identifier" may provide *only* information regarding the type of service, and need not necessarily also provide information about channel coding, which Patent Owner recognizes as transmission characteristics (Tr. 50:3–6).

We are not persuaded by Patent Owner's argument that Petitioner's reliance on the district court's construction is misplaced (PO Resp. 24) because we did not rely on the district court's construction.

We also are not persuaded by Patent Owner's argument that "the Board erred when it characterized 'services' as 'various types of information being transmitted on traffic channels'" because "services" refers to "various types of information *transmission*." PO Resp. 24–25. Patent Owner identifies no support in the '568 patent for its contention that "types of information transmission" includes the characteristics of transmitting that information. Even assuming that the '568 patent defined "service type identifier" in a way that required it to identify transmission characteristics, Petitioner's expert explains how transmission characteristics can be inferred from the type of payload. Pet. Reply 9 (citing Ex. 1023 ¶ 4). We are, therefore, not persuaded that identification of transmission characteristics would necessarily require anything more than identifying the type of payload.

Accordingly, we maintain our construction of "service type identifier" as "an identifier that identifies the type

of information conveyed in the payload, including but not limited to video, voice, data, and multimedia."

C. The Challenged Claims – Anticipated by Morley

Petitioner argues that claims 1–6 are unpatentable under 35 U.S.C. § 102(b) as anticipated by Morley. Pet. 18–27. In support of this ground of unpatentability, Petitioner provides detailed explanations as to how each claim limitation is disclosed by Morley, and relies upon the Declaration of Dr. Harry Bims (Ex. 1009). *Id.* (citing Ex. 1009 ¶¶ 29–37).

Patent Owner counters that claim 1 is not anticipated because Morley does not disclose (1) a "service type identifier" as that term is construed by Patent Owner; or (2) any "identifier which identifies a type of payload information provided in said at least one first field," as recited in claim 1. PO Resp. 27–37.

Upon consideration of the parties' contentions and supporting evidence, we determine that Petitioner has demonstrated, by a preponderance of the evidence, that claims 1–6 are anticipated by Morley.

Morley (Exhibit 1002)

Morley describes a multiplexer for use in a system for transmitting more than one type of data, e.g., voice and data. Ex. 1002, Abstract.

Figure 2 of Morley is reproduced below.

Appendix J

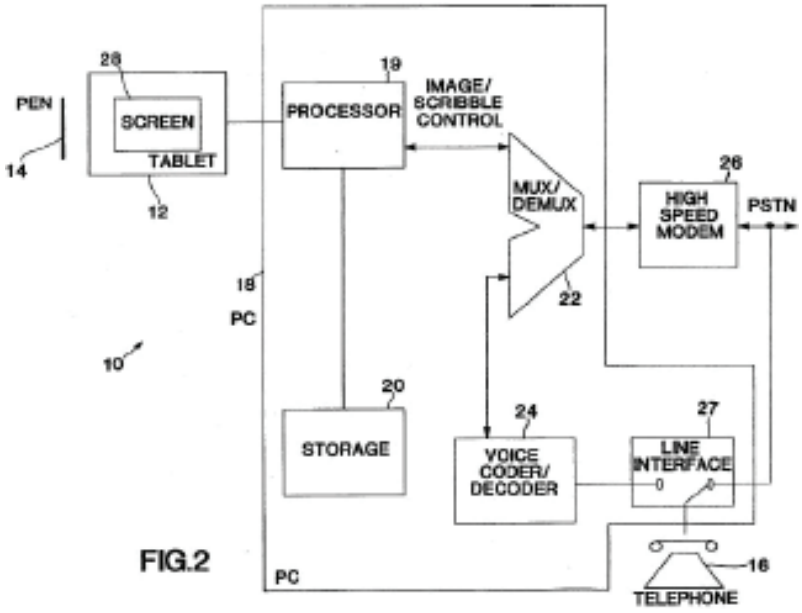


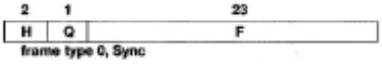
FIG.2

Figure 2 is a block diagram showing the main components of communication system 10 of Morley's invention. *Id.* at 2:52–53, 2:66–67. Controller 18 comprises processor 19, storage means 20, multiplexer/demultiplexer 22, voice coder/decoder 24, and line interface 27. *Id.* at 3:1–9. Communication system 10 can be used to share voice and visual data with another user of a similar system. *Id.* at 3:10–11. Multiplexer 22 multiplexes the voice and data signals, adds synchronization information, and transmits the composite signal to the physical layer (e.g., a high speed modem (V32bis) connected to the Public Switched Telephone Network (PSTN) or a GSM mobile network). *Id.* at 5:4–6, 5:39–41, 99:40– 46. The composite signal is

organized into frames each containing a header and one or more complete voice frames and/or other non-voice data. *Id.* At 5:41–44, 5:52–53. The content of each frame is determined by the applications and may change during the call. *Id.* at 5:55–56, 5:63–64.

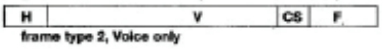
Figures 5a to 5g, reproduced below, show the structures of some possible frames.

FIG.5a



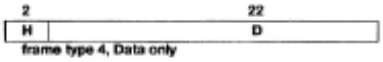
frame type 0, Sync

FIG.5b



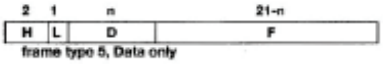
frame type 2, Voice only

FIG.5c



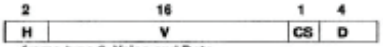
frame type 4, Data only

FIG.5d



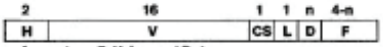
frame type 5, Data only

FIG.5e



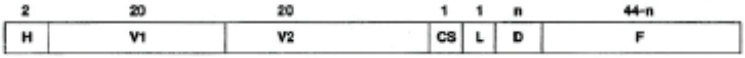
frame type 6, Voice and Data

FIG.5f



frame type 7, Voice and Data

FIG.5g



In Figures 5a to 5g, "H" is a header field that identifies the frame type, which is used to identify the contents of a frame. *Id.* at 6:22–25. Sixteen possible headers for supporting one voice channel and up to three data channels are shown in the table below:

Appendix J

Header Type	Frame Type	Header Value
0	Sync	0 × 19b3
1	Extend	0 × 007f
2	Voice Only	0 × 4ce6
3	Not Defined	0 × 0000
4	Data 0	0 × 34c9
5	Data 0*	0 × 3366
6	Voice + Data 0	0 × 2ad5
7	Voice + Data 0*	0 × 1e3c
8	Data 1	0 × 4b69
9	Data 1*	0 × 52da
10	Voice + Data 1	0 × 552a
11	Voice + Data 1*	0 × 61c3
12	Data 2	0 × 664c
13	Data 2*	0 × 7870
14	Voice + Data 2	0 × 078f
15	Voice + Data 2*	0 × 4b16

Analysis

Independent claim 1 recites

> a processor for arranging information for transmission including providing at least one first field in which payload information is disposed and providing at least one second field, separate from said first field, which includes a service type identifier which identifies a type of payload information provided in said at least one first field.

Petitioner relies upon Morley's disclosure of controller 18—e.g., a PC— comprising processor 19—e.g., an Intel 386 processor—and multiplexer 22—e.g., a GMM/Sync

2 CCP intelligent communications card and software. Pet. 20–21; *see also* Ex. 1002, 3:4–9, 3:33–41. Under the direction of processor 19, multiplexer 22 arranges voice and non-voice data for transmission in frames. Ex. 1002, 5:4–6, 5:39–44. A frame may contain at least a field V (voice) or D (non-voice data) in which payload information is disposed. *Id.* at Figs. 5a–5g, 6:4–55. A frame also contains a separate field, H (header), that identifies the frame type—i.e., the type of payload information—as voice only, data only, or voice and data. *Id.* at Figs. 5a–5g, 6:22–32, 7:1–17.

Claim 1 also recites "a transmitter for transmitting information received from said processor including said at least one first field and said at least one second field." Petitioner relies upon Morley's disclosure of high speed modem 26 for transmitting the frames arranged by multiplexer 22 over the PSTN or using GSM. Pet. 21; *see also* Ex. 1002, 3:3, 3:58–59, 4:42–44, 99:40–45.

Claim 5 recites "wherein said communication station is a base station." Claim 6 recites similarly "wherein said communication station is a mobile station." Petitioner relies upon Morley's disclosure of implementing the claimed invention using GSM. Pet. 23 (citing Ex. 1002, 99:40–45). In addition, Petitioner argues that a "base station" and a "mobile station" are inherent in GSM (Pet. 23–24), and Dr. Bims testifies as follows:

> It is inherent that GSM radio communications systems include base stations, and it is also known that base stations can receive data from

> mobile stations and retransmit data to other mobile stations. It is also inherent that GSM radio communications systems include mobile stations. Base stations and mobile stations in a GSM cellular system, or in other cellular systems, each have a processor for processing data to be sent, and a transmitter for sending data. That processor sends data that has been arranged in frames defined by the GSM protoco1. (*See, e.g.*, Mouly and Pautet, GSM, Ex. 1008, pp. 89–99).

Ex. 1009 ¶ 36. We are persuaded by the reasoning in the above-quoted analysis of Dr. Bims.

Petitioner also argues that claims 2–4 are disclosed by Morley. Pet. 22–23.

We are persuaded that Petitioner's citations support Petitioner's contentions. Patent Owner presents several arguments as to why Morley does not teach all of the limitations of the claims. PO Resp. 27–37. Petitioner responds to these arguments. Pet. Reply 6–11. We address each argument in turn below.

Whether Morley discloses a "service type identifier"

Patent Owner argues that the header of Morley's mux frame is not a "service type identifier" because Morley does not disclose separate services. PO Resp. 32. According to Patent Owner, "separate voice and data services for the mux frame require that the voice frame

and data *each* be independently communicated, rather than communicated as a single composite unit." *Id.* (citing Ex. 2020 ¶ 40). Patent Owner acknowledges that Morley's mux frame may contain voice only, data only, or a combination, but argues that a "the mux frame is not optimized for separate communication of the voice and the data." *Id.* at 32–33. Patent Owner concludes that "[b]ecause M[o]rley describes only one type of information communication, it cannot disclose a service type identifier." *Id.* at 33.

We are not persuaded by Patent Owner's argument because it is not commensurate with the language of claim 1. Claim 1 does not require a plurality of types of information communication. Patent Owner attempts to import these limitations into the term "service type identifier," but the language of claim 1 requires only that the "service type identifier" identify a type of payload information, and our construction requires only that it "identifies the type of information conveyed in the payload." Patent Owner concedes that Morley's header identifies the type of information in the payload—i.e., voice only, data only, or a combination. Accordingly, we are not persuaded that Morley's header does not disclose the claimed "service type identifier."

Patent Owner also argues that Morley does not construe a "service type identifier," as Patent Owner construes that term. PO Resp. 33–35. We decline to adopt Patent Owner's construction of "service type identifier" for the reasons discussed above. As a result, Patent Owner's argument is unpersuasive.

Lastly, Patent Owner argues that Morley's header does not "identif[y] a type of payload information," as recited in claim 1, because it "defines the format (or structure) of the information transmitted, rather than ident[ies] the payload data itself." PO Resp. 35–37. Morley's header identifies the frame type as voice only, data only, or some combination. Pet. 19–20 (citing Ex. 1002, Figs. 5a-g, 6:22–32, 7:1–17. The receiver uses this information to identify the type of payload information in the frame and write it to the appropriate buffer. Pet. 20 (citing Ex. 1002, 10:19–22). By identifying the frame type, the header necessarily identifies the type of payload information in the frame. Accordingly, we are not persuaded that Morley's header does not "identif[y] the type of payload information."

Dependent claims

Patent Owner argues that dependent claims 2–6 are not anticipated by Morley for the same reasons as independent claim 1. PO Resp. 37. We are not persuaded by Patent Owner's arguments regarding independent claim 1 for the reasons discussed above.

Conclusion

We are persuaded that Petitioner has demonstrated, by a preponderance of the evidence, that claims 1–6 are unpatentable as anticipated by Morley.

D. The Challenged Claims – Obvious over Adams

Petitioner argues that claims 1–6 are unpatentable under 35 U.S.C. § 103(a) as obvious over Adams. Pet. 45–54. In support of this ground of unpatentability, Petitioner provides detailed explanations as to how each claim limitation is taught or suggested by Adams, and relies upon the Declaration of Dr. Bims (Ex. 1009). *Id.* (citing Ex. 1009 ¶¶ 71–79).

Patent Owner argues that (1) Adams's ID tag is not a "service type identifier" because it does not convey transmission characteristics; (2) Adams's ID tag does not "identif[y] a type of payload information provided in said at least one first field," as recited in claim 1; and (3) Adams does not teach or suggest a "base station" or "mobile station," as recited in claims 5 and 6, respectively. PO Resp. 40–46.

Upon consideration of the parties' contentions and supporting evidence, we determine that Petitioner has demonstrated, by a preponderance of the evidence, that claims 1–6 are obvious over Adams.

Adams (Exhibit 1006)

Adams describes an interactive video system that processes a video data stream and an associated data stream corresponding to the video data stream. Ex. 1006, Abstract. The interactive video system includes satellite receiver 14, cable television ("CATV") receiver 16, or television broadcast receiver 18. *Id.* at Fig. 1, 4:2–4.

Appendix J

Satellite receiver 14 enables reception of packetized digital data streams over a satellite link. *Id.* at 4:5–6. The packetized digital data streams received by satellite receiver 14 include video data packets, audio data packets, and associated data packets. *Id.* At 4:9–12.

Figure 5 is reproduced below.

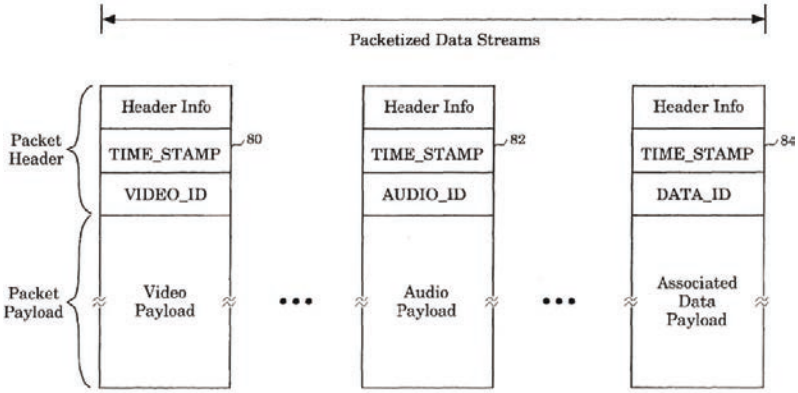


Figure 5

Figure 5 illustrates a packetized digital data stream, including video packet 80, audio packet 82, and associated data packet 84. *Id.* at 7:9–14. Video packet 80, audio packet 82, and associated data packet 84 each comprise a packet header and payload. *Id.* at 7:15–17. Video packet 80 includes (1) a video payload that provides digital video data; and (2) a header with a video identifier (VIDEO_ID) that identifies the packet as carrying video data. *Id.* at 7:22–26. Audio packet 82 includes (1) an audio payload; and (2) a header with an audio identifier (AUDIO_ID) that identifies the packet as carrying audio data. *Id.* at 7:27–31. Associated packet 84 includes (1) an associated data payload; and (2)

a header with an associated data identifier (DATA_ID) that identifies the packet as carrying associated data. *Id.* at 7:32–37.

Analysis

Independent claim 1 recites

> a processor for arranging information for transmission including providing at least one first field in which payload information is disposed and providing at least one second field, separate from said first field, which includes a service type identifier which identifies a type of payload information provided in said at least one first field.

Petitioner relies upon Adams's teaching of digital video packets that include a first field with payload information—i.e., video payload, audio payload, or associated data payload—and a second field, separate from the first field, with a service type identifier—i.e., VIDEO_ID, AUDIO_ID, or DATA_ID—that identifies the type of payload information provided in the first field. Pet. 47–48 (citing Ex. 1006, 7:9–37).

Petitioner acknowledges that Adams teaches explicitly only a receiver. Pet. 47. Petitioner argues that Adams teaches implicitly "a communication station with a processor for formatting the audio and video data, and a transmitter for transmitting a packetized digital data stream to the device shown in Adams." *Id.* (citing Ex. 1006,

Figs. 1, 5, 2:54–65, 3:33–36, 3:65–4:6, 4:9–14, 4:25–34, 6:7–26; Ex. 1009 ¶ 72). Dr. Bims testifies as follows:

> Adams discloses receiving "at least one first field" in which payload information is disposed because in Adams each packet that is received includes an audio payload, a video payload, or a data payload. An object of the invention in Adams is to enable a content programmer to create a video display screen from a programming studio. (*Id.* at 2:21–23.) Because Adams discloses implementing a content programmer, it is obvious (if not inherent) that the communication station sending to Adams include a processor for arranging information for transmission. Adams also discloses receiving "at least one second field, separate from the first field" that identifies a type of payload information because Adams discloses that each video packet includes a packet header that includes an identifier that identifies whether audio, video, or data is carried in the packet payload. (*Id.* at Figures 3, 5, and 6, 6:7–58, 7:8–37). One of ordinary skill in the art would have understood the Adams reference to teach a transmitter for transmitting said at least one first field and said at least one second field on said radio channel.

Ex. 1009 ¶ 72. We are persuaded by the reasoning in the above-quoted analysis of Dr. Bims.

Claim 1 also recites "a transmitter for transmitting information received from said processor including said at least one first field and said at least one second field." As with the limitation above, Petitioner acknowledges that Adams teaches explicitly only a receiver, and argues that Adams teaches implicitly the recited "transmitter." Pet. 47 (citing Ex. 1009 ¶ 71). Dr. Bims testifies as follows:

> The subject matter of claim 1 would have been obvious in view of Adams. Adams is focused on a receiver, while the claims are to a transmitting device. However, one of ordinary skill in the art would have understood that the Adams reference implicitly teaches a communication station for transmitting packetized digital data streams, including the three types of payload, in Adams. Therefore it would have been obvious to provide a transmitter for sending the type of data that Adams receives.

Ex. 1009 ¶ 71. We are persuaded by the reasoning in the above-quoted analysis of Dr. Bims.

Claim 5 recites "wherein said communication station is a base station." Petitioner relies upon Adams's teaching of transmission of packetized digital data streams over a satellite link. Pet. 49–50 (citing Ex. 1006, Fig. 1, 4:2–14). Petitioner argues that "[i]t is well-known in the art that such satellite communication devices include base stations." Pet. 50 (citing Ex. 1009 ¶ 76). Dr. Bims testifies as follows:

> Dependent claim 5 recites that the communication station is a base station. Adams discloses transmission of packetized digital data streams over a satellite link, and thus the transmitter would typically be a base station. (*Id*. at Figure 1, 3:65–5:22). It is well-known in the art that such satellite communications devices include base stations. Adams also discloses communication of an analog or digital video signal over a coaxial transmission line. Transmission over a coaxial transmission line is typically by a head-end, or base station. Further, I believe it would have been obvious to provide Adams over almost any wireless system. Adams does not require any particular type of system, and thus could use systems like cellular systems with base stations. This would be the use of a known technique (of providing payloads and identifiers) applied to a known type of device (base station) to yield the predictable result of allowing the base station to send content and identify the packets that make up the content.

Ex. 1009 ¶ 76. We are persuaded by the reasoning in the above-quoted analysis of Dr. Bims.

Claim 6 recites "wherein said communication station is a mobile station." Petitioner relies upon Adams's teaching of computer system 10 for receiving packetized digital data streams. Pet. 50–51 (citing Ex. 1006, 4:9–12); *see also* Ex. 1006, Fig. 1, 3:65–4:1, 4:12–15. Petitioner argues that

it was known for computer systems to *send* video, audio, and data, and that such computer systems could be mobile, such as with laptop computers. Pet. 50–51 (citing Ex. 1009 ¶ 77). Dr. Bims testifies as follows:

> Dependent claim 6 recites that the station is a mobile station. It would have been obvious to provide a protocol for sending voice, video, and data to a mobile station, as a mobile station (e.g., like the laptop in Menand) could create multiple types of content to be sent, and therefore it would have been obvious to provide the ability to identify what type of data was included in a packet to allow the packet to be processed appropriately. This would be the use of a known technique (of providing payloads and identifiers) applied to a known type of device (mobile) to yield the predictable result of allowing the mobile to send content and identify the packets that make up the content.

Ex. 1009 ¶ 77. We are persuaded by the reasoning in the above-quoted analysis of Dr. Bims.

Petitioner also argues that claims 2–4 are taught or suggested by Adams. Pet. 48–49.

We are persuaded that Petitioner's citations support Petitioner's contentions.

Patent Owner presents several arguments as to why Adams does not teach all of the limitations of the claims.

PO Resp. 37–46. Petitioner responds to these arguments. Pet. Reply 12–15. We address each argument in turn below.

Whether Adams teaches a "service type identifier"

Patent Owner argues that Adams's ID tag is not a "service type identifier" because it is merely a label from which "[n]o transmission characteristics can be gleaned." PO Resp. 40–41. According to Patent Owner, "Adams is essentially silent as to the transmission characteristics," such as, for example, "whether the incoming packets are otherwise compressed or processed." *Id.* at 41. Patent Owner contends that "Adams discloses only one type of encoded information, namely the MPEG encoding," which "negates the need for a 'service type identifier.'" *Id.* Because "Adams discloses an invariant data structure," in Patent Owner's view, "the ID tag does not allow devices in the system to account for different transmission characteristics of different service types, and therefore cannot be a 'service type identifier.'" *Id.* at 42. Petitioner counters that "[Patent] Owner admits that Adams classifies packets as containing video, audio, or data," and "[t]herefore . . . cannot distinguish the claimed service type identifier from the identifiers discloses in Adams under the Board's construction." Pet. Reply 12. We find Petitioner's argument persuasive.

We decline to adopt Patent Owner's construction of "service type identifier" for the reasons discussed above. As a result, Patent Owner's arguments regarding transmission characteristics are unpersuasive.

Patent Owner also argues that Adams's ID tag does not "identif[y] a type of payload information provided in said at least one first field," as recited in claim 1, because "the receiver in Adams merely transfers the incoming packet to an appropriate queue based on the ID tag," and "[m]erely classifying received data packets as a video, audio, or associated data packet says nothing about the transmission characteristics of the received data packet." PO Resp. 42–43. To the extent that Patent Owner is arguing that Adams's ID tag fails to identify transmission characteristics, that argument is not persuasive because it is not commensurate with the claim language, which requires only "identif[y] a type of payload information in said at least one first field." To the extent that Patent Owner is arguing that Adams's ID tag does not "identif[y] a type of payload information" because it "[m]erely classif[ies] received data packets as a video, audio, or associated data packet," that argument is not persuasive because it is distinction without a difference. Patent Owner concedes that the receiver in Adams uses the ID tag to transfer the incoming packet to an appropriate queue. The receiver could not transfer the incoming packet to the appropriate queue—i.e., the video queue, audio queue, or data queue—if Adams's ID tag did not "identif[y] a type of payload information" as video, audio, or data.

Whether a transmitter would have been obvious

Patent Owner argues that it would not have been obvious to provide a transmitter for sending the type of data that Adams receives because "the satellite receivers in Adams only receive data" and "have no transmitter

functionality," and "Adams does not disclose how data is transmitted." PO Resp. 43–44. According to Patent Owner, "the satellite broadcasting station may simply retransmit the audio, video, and/or associated data," and "its transmitter may not transmit the information recited by the claims." *Id.* At 44. Patent Owner continues that, "[w]ithout knowing the transmission characteristics of the video, audio, and associated data frames, one cannot show that the limitations of the '568 Patent are met by Adams." *Id*. Petitioner counters that "it would have been obvious to provide a transmitter to send data in the format Adams uses to receive data, and this would need to be generated by some processor along with a transmitter." Pet. Reply 13–14 (citing Ex. 1023 ¶ 9). We find Petitioner's arguments to be persuasive. A person of ordinary skill in the art at the time would have understood that Adams's receiver would not receive data in the format taught were it not first transmitted by a transmitter in that format.

Dependent claims 2–6

Patent Owner argues that dependent claims 2–6 are not anticipated by Adams for the same reasons as independent claim 1. PO Resp. 37. We are not persuaded by Patent Owner's arguments regarding independent claim 1 for the reasons discussed above.

With respect to claim 5, Patent Owner argues that "[o]ne of ordinary skill in the art would understand that satellite communication devices contain earth stations, not base stations." PO Resp. 44–45. Dr. Akl testifies about three differences that preclude equating an Earth

station to a base station. Ex. 2020 ¶ 64. Dr. Bims testifies that "[i]t is well-known in the art that such satellite communications devices include base stations." Ex. 1009 ¶ 76. Neither expert cites to any evidence in support of their opinions. As Patent Owner points out, however, the '568 patent states that the "invention relates generally to radio communication systems, e.g., cellular *or satellite* systems." Pet. Reply 14 (citing Ex. 1001, 1:13–14) (emphasis added). Accordingly, we are persuaded that the broadest reasonable interpretation of "base station" includes the satellite communication devices taught in Adams.

With respect to claim 6, Patent Owner also argues that "the satellite receiver disclosed in Adams is not a device that is mobile" because it "is a PC that is connected to a satellite receiver 14." PO Resp. 45–46 (citing Ex. 2020 ¶ 65). Petitioner counters that "it was known and would have been obvious to use a mobile system, such as a laptop computer," and that "[Patent] Owner has failed to address the fact that it was known for satellite systems to include a mobile station with the claimed processor and transmitter for transmitting information. Pet. Reply 15 (citing Ex. 1005, Fig. 1; Ex. 1023 ¶ 10). In this regard, we credit the testimony of Dr. Bims. We are persuaded sufficiently that it was known, in 1996, for computer systems to send audio, video, and data, and that such systems could be mobile.

Conclusion

We are persuaded that Petitioner has demonstrated, by a preponderance of the evidence, that claims 1–6 are unpatentable as obvious over Adams.

E. Patent Owner's Motion to Amend

Patent Owner moves to substitute claims 8–13 for challenged claims 1–6, respectively, if we find claims 1–6 unpatentable. Mot. to Amend 1. As stated above, we determine that Petitioner has demonstrated by a preponderance of the evidence that all of the challenged claims are unpatentable, including claims 1–6. Therefore, Patent Owner's Motion to Amend is before us for consideration. For the reasons set forth below, Patent Owner's Motion to Amend is *denied*.

Proposed substitute claim 8, the only independent claim, is reproduced below:

> 8. (Proposed substitute for Original claim 1). A communication station comprising:
>
> a processor for arranging information for transmission including providing at least one first field in which payload information is disposed and providing at least one second field, separate from said first field, which includes a service type identifier which identifies *transmission characteristics of a service and* a type of payload information provided in said at least one first field; and
>
> a transmitter for transmitting information received from said processor including said at least one first field and said at least one second field.

Mot. to Amend 1–2.

A motion to amend claims in an *inter partes* review is not, itself, an amendment. As the moving party, Patent Owner bears the burden of proof to establish that it is entitled to the relief requested. 37 C.F.R. § 42.20(c). Therefore, Patent Owner's proposed substitute claims are not entered automatically, but only upon Patent Owner having demonstrated by a preponderance of the evidence the patentability of those substitute claims. *See, e.g.*, 37 C.F.R. § 42.1(d) (noting that the "default evidentiary standard [in proceedings before the Board] is a preponderance of the evidence").

1. Written Description Support

A motion to amend claims must identify clearly the written description support for each proposed substitute claim. 37 C.F.R. § 42.121(b). The requirement that the motion to amend must set forth the support in the original disclosure of the patent is with respect to *each claim*, not for a particular feature of a proposed substitute claim. The written description test is whether the original disclosure of the application relied upon reasonably conveys to a person of ordinary skill in the art that the inventor had possession of the claimed subject matter as of the filing date. *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). Thus, the motion should account for the claimed subject matter as a whole, i.e., the *entire* proposed substitute claim, when showing where there is sufficient written description support for each claim feature. *See Nichia Corp. v. Emcore Corp.*,

Appendix J

Case IPR2012-00005, slip op. at 4 (PTAB June 3, 2013) (Paper 27).

In its Motion to Amend, Patent Owner addresses the written description support for the claimed subject matter as a whole. Mot. to Amend 5–10. Petitioner argues that there is not adequate written description support for a "service type identifier" that identifies "transmission characteristics" because neither of the two portions of the '568 patent cited by Patent Owner mentions the term "transmission characteristics." Opp. To Mot. to Amend 2–3. Petitioner acknowledges, however, that the '568 patent describes how "the FOC [i.e., the service type identifier] can provide information regarding the type of service which the associated payload is currently supporting, the channel coding *and/or* interleaving associated therewith." *Id.* at 3–4 (citing Ex. 1001, 9:27–32) (emphasis added). We are unpersuaded by Petitioner's interpretation of this passage to mean that "the service type identifier just identifies the type of information and the receiver infers how to process the information." *Id.* at 4 (citing Ex. 1001, 9:32–38). By using "and/or," the '568 patent clearly describes the service type identifier as being capable of providing information regarding not only the type of information in the payload, but also channel coding. Moreover, Petitioner argues that "interleaving is not a transmission characteristic" (Pet. Reply 5), but does not argue that channel coding is not a transmission characteristic. Accordingly, we are persuaded that Patent Owner has shown adequate written description support for the proposed amendment.

2. Patentability over Prior Art

The patent owner bears the burden of proof in demonstrating patentability of the proposed substitute claims over the prior art in general, and, thus, entitlement to add these claims to its patent. *See Idle Free Systems, Inc. v. Bergstrom, Inc.,* IPR2012-00027, Paper 26, 7. In a motion to amend, the patent owner must show that the conditions for novelty and non-obviousness are met with respect to the prior art available to one of ordinary skill in the art at the time of the invention. With regard to obviousness as the basis of potential unpatentability of the proposed substitute claims, the patent owner should present and discuss facts which are pertinent to the first three underlying factual inquiries of *Graham*: (1) the scope and content of the prior art, (2) differences between the claimed subject matter and the prior art, and (3) the level of ordinary skill in the art, *with special focus on the new claim features* added by the proposed substitute claims. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). The patent owner should identify each new claim feature, and come forward with technical facts and reasoning about that particular feature. Some discussion and analysis should be made about the specific technical disclosure of the closest prior art as to each particular feature, and the level of ordinary skill in the art, in terms of ordinary creativity and the basic skill set of a person of ordinary skill in the art, regarding the feature.

Here, we are unpersuaded that Patent Owner has demonstrated, by a preponderance of the evidence, that the proposed substitute claims are patentable. Specifically,

we are not persuaded that the proposed substitute claims are patentable over Morley.

Patent Owner argues "Morley teaches away from transmission characteristics" because "[a]ny change in format in Morley is related only to header type 0, and header type zero does not identify any 'information conveyed in the payload." Mot. to Amend. 11. Patent Owner further argues that "the error correction disclosed in Morley is not associated with any alleged service type identifier (e.g., the header type.)." *Id.* Patent Owner also argues that "the header or identifier fields in . . . Morley are associated with only one type of data." *Id.* at 14.

Petitioner counters that "Morley discloses identifying a 'transmission characteristic' because Morley discloses using the header to determine the data rate at which to process the received data." Opp. to Mot. to Amend 6 (citing Ex. 1026 (Bims Decl.) ¶ 6). According to Petitioner:

> Morley describes that different buffers are processed at different rates based on the type of data -- the modem data rate is 14400 bps and the voice coder operates at 6800 bps. (Morley at 52:45-47; Ex. 1002). Morley's receiver uses the frame type, which is the type of information, to process voice data at a first rate, and other data at a second rate.

Id. With respect to Patent Owner's argument that Morley discloses only a single service, Petitioner counters that "claim 8 only recites identifying 'transmission

characteristics of a service,' not different transmission characteristics for different services." *Id.* at 6–7. Moreover, Petitioner argues, even if claim 8 required a plurality of services, "Morley's different voice and data channels constitute different services." *Id.* at 7.

Patent Owner replies that "[t]he Morley header does not determine, nor affect, the rate of processing the data . . . or the voice frames . . . of a multiplex frame." PO Reply 2 (citations omitted). Patent Owner also argues that "[t]he data and video of a multiplex frame are transmitted together as a single service, whose video and data processing rates are defined by the receiver, not the header in Morley." *Id.*

We find Petitioner's arguments persuasive. Patent Owner's proposed construction of "transmission characteristics" includes transmission rate. Mot. to Amend 4. Morley discloses that the transmission rate of data is 14400 bps whereas the transmission rate of voice is 6800 bps. Ex. 1002, 52:45–47. By identifying a frame type as voice only or data only, the header necessarily identifies the transmission rate as either 14400 bps or as 6800 bps. As a result, Morley's header identifies a transmission characteristic of a service.

Moreover, we agree with Petitioner that proposed substitute claim 8 does not require a plurality of services. Even if it did, however, we are not persuaded by Patent Owner's argument that Morley's voice-only mux frame is the same "service" as Morley's data-only mux frame for the reasons discussed above in the analysis of original claims 1–6.

3. Conclusion

For the foregoing reasons, Patent Owner has not, in its Motion to Amend, satisfied its burden of proof.

III. CONCLUSION

Petitioner has demonstrated, by a preponderance of the evidence, that claims 1–6 of the '568 patent are unpatentable under 35 U.S.C. § 102(b) as anticipated by Morley, and under 35 U.S.C. § 103(a) as obvious over Adams. Patent Owner's Motion to Amend is denied.

IV. ORDER

Accordingly, it is

ORDERED that claims 1–6 of the '568 patent are held unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Amend is *denied*; and

FURTHER ORDERED that, because this is a Final Written Decision, the parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

APPENDIX K — FINAL WRITTEN DECISION OF THE UNITED STATES PATENT AND TRADEMARK OFFICE, PATENT TRIAL AND APPEAL BOARD, DATED MARCH 6, 2015

UNITED STATES PATENT
AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL
AND APPEAL BOARD

BROADCOM CORPORATION,

Petitioner,

v.

WI-FI ONE, LLC,

Patent Owner.

Case IPR2013-00601
Patent 6,772,215 B1

Before KARL D. EASTHOM, KALYAN K. DESHPANDE, and MATTHEW R. CLEMENTS, *Administrative Patent Judges.*

CLEMENTS, *Administrative Patent Judge.*

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

Appendix K

I. INTRODUCTION

Broadcom Corporation ("Petitioner") filed a Petition requesting *inter partes* review of claims 1, 2, 4, 6, 8, 15, 22, 25, 26, 29, 32, 34, 45, 46, 49, 52, and 54 (the "challenged claims") of U.S. Patent No. 6,772,215 B1 (Ex. 1001, "the '215 patent"). Paper 3 ("Pet."). Telefonaktiebolaget L. M. Ericsson[1] ("Patent Owner") filed an election to waive its Preliminary Response. Paper 22. On March 10, 2014, we instituted an *inter partes* review of all challenged claims on certain grounds of unpatentability alleged in the Petition. Paper 29 ("Dec. to Inst.").

After institution of trial, Patent Owner filed a Patent Owner Response (Paper 40, "PO Resp.") to which Petitioner filed a Reply (Paper 49, "Pet. Reply"). Patent Owner filed a Motion to Exclude (Paper 53), which Petitioner opposed (Paper 58). Patent Owner filed a Reply to Petitioner's Opposition to its Motion to Exclude. Paper 59. Oral hearing was held on December 8, 2014.[2]

The Board has jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73.

---

1. On July 11, 2014, Patent Owner filed an Updated Mandatory Notice indicating that the '215 patent had been assigned to Wi-Fi One, LLC, and that Wi-Fi One, LLC and PanOptis Patent Management, LLC were now the real parties-in-interest. Paper 43.

2. A transcript of the oral hearing is included in the record as Paper 65.

Petitioner has shown, by a preponderance of the evidence, that claims 1, 2, 4, 6, 8, 15, 22, 25, 26, 29, 32, 34, 45, 46, 49, 52, and 54 of the '215 patent are unpatentable. Patent Owner's Motion to Exclude is denied.

A. Related Proceedings

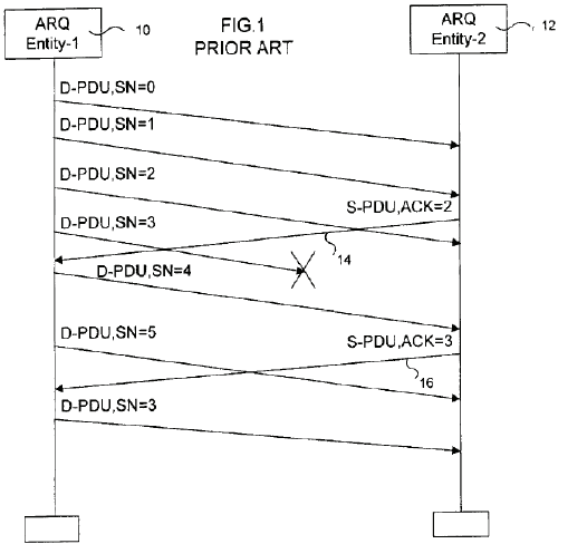
Petitioner and Patent Owner indicate that the '215 patent is involved in a case captioned *Ericsson Inc. v. D-LINK Corp.,* Civil Action No. 6:10-cv-473 (E.D. Tex.) ("D-Link Lawsuit"), and in an investigation at the U.S. International Trade Commission captioned *In the Matter of Certain Electronic Devices, Including Wireless Communication Devices, Tablet Computers, Media Players and Televisions, and Components Thereof*, ITC Inv. No. 337-TA-862. Pet. 1–2; Paper 6, 1. Patent Owner also identifies an appeal at the Federal Circuit captioned *Ericsson Inc. v. D-LINK Corp.*, Case Nos. 2013-1625, -1631, -1632, and -1633. Paper 6, 1. Petitioner also filed two petitions for *inter partes* review of related patents: IPR2013-00602 (U.S. Patent No. 6,466,568) and IPR2013-00636 (U.S. Patent No. 6,424,625).

B. The '215 Patent

The '215 patent relates to the telecommunications field and, in particular, to a method for minimizing feedback responses in Automatic Repeat Request (ARQ) protocols. Ex. 1001, 1:14–17. When data is conveyed between nodes in a network, certain algorithms are used to recover from the transmission of erroneous data and the loss of data between the nodes. *Id.* at 1:20–23. An algorithm

commonly used is referred to as an ARQ protocol. *Id.* at 1:23–25. Each node, or peer entity, in a network includes a receiver and a sender. *Id.* at 1:26–29. The units of data conveyed between peer entities commonly are referred to as Protocol Data Units ("PDUs"). *Id.* at 1:29–30. The basic function of an ARQ protocol is to allow the receiver to request that the sender retransmit PDUs that were lost during transmission or contained errors. *Id.* at 1:33–37. The receiver can inform the sender about which PDUs were received correctly and/or can inform the sender about which PDUs were *not* received correctly. *Id.* at 1:38–41. When the sender receives this information, it retransmits the "lost" PDUs. *Id.* at 1:41–42. Several ARQ protocols, such as Stop-and-Wait ARQ, Go-back-N ARQ, and Selective-Repeat ARQ, existed at the time that the '215 patent was filed and were well known. *Id.* at 2:17–21.

Figure 1 of the '215 patent is reproduced below.



Appendix K

Figure 1 illustrates the use of ARQ protocols. *Id.* at 2:22–23. A sequence of transmitted Data-PDUs ("D-PDUs") and Status-PDUs ("S-PDUs") is shown. *Id.* at 2:28–29. A D-PDU includes user data, a sequence number ("SN"), and possibly piggybacked error control information. *Id.* at 2:29–31. The sequence number ("SN") is associated with each D-PDU to identify that specific D-PDU. *Id.* at 2:32–34. An S-PDU includes status information but no user information. *Id.* at 2:31–32.

According to the '626 patent, two main methods were used in the prior art for coding the SNs within S-PDUs: (1) a list of SNs to be retransmitted; and (2) a bitmap to represent the SNs to be retransmitted. *Id.* at 2:48–52. As such, known S-PDUs included a format identifier that could be used by a receiver to distinguish between the different PDU formats.

Figures 2 and 3 of the '215 patent are reproduced below:

FIG. 2
PRIOR ART

PDU_format=S-PDU
Length=5
SN=3
SN=4
SN=5
SN=9
SN=16

FIG.3
PRIOR ART

PDU_format=S-PDU
SSN=2
BITMAP=0100001111111000

Appendix K

Figure 2 shows an S-PDU that uses the list method to code SNs. *Id.* at 2:60–62. Figure 3 shows an S-PDU that uses the bitmap method to code SNs. *Id.* at 3:18–19. According to the '215 patent, a significant problem with existing ARQ protocols is that fixed length messages are used, which leads to a waste of bandwidth because unnecessary overhead information is transmitted. *Id.* at 3:46–50; *see also id.* at Table 1, 4:1–13. According to the '215 patent, a significant need existed for a method that can be used to minimize the size of S-PDUs in an ARQ protocol or, if it is not possible to fit all SNs into a single S-PDU, to maximize the number of SNs in an SPDU with limited size. *Id.* at 4:33–38.

To address these issues, the '215 patent discloses a method whereby different mechanisms for indicating erroneous D-PDUs can be combined in a single S-PDU. *Id.* at 4:43–48. Each message includes three fields: type information, length information, and a value. *Id.* at 5:60–66. In a first embodiment of the invention, a bitmap message can be constructed using a number of methods to represent the length of the bitmap (i.e., the LENGTH field). *Id.* at 6:19–48. Likewise, a list message can list only erroneous SNs or can combine the prior art list method with the list of only erroneous SNs. *Id.* at 6:58 –7:51. In accordance with a second embodiment of the invention, a number of different message types can be combined to create an S-PDU. *Id.* at 7:52–54. Figure 8, reproduced below, illustrates how an S-PDU can be constructed in accordance with this embodiment:

Appendix K

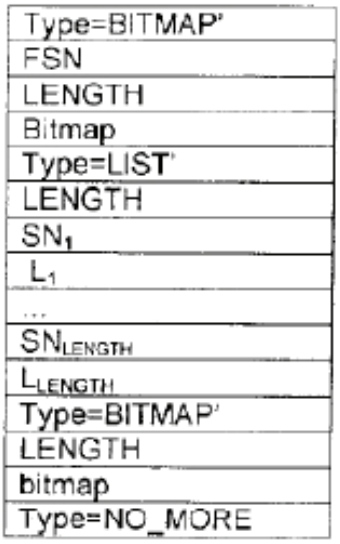


FIG. 8

As shown in Figure 8, the resulting S-PDU includes two BITMAP' messages and one LIST' message. *Id.* at 8:43–44. For comparison with the prior art techniques, Table 3 is reproduced below.

TABLE 3

	Size of S-PDU (bits)		
	State-of-the-art solutions		Combination
	LIST	BITMAP	solution
1	42	141	38
2	114	141	74
3	138	141	78
4	282	141	121
5	114	141	53

Appendix K

Table 3 shows the sizes of S-PDUs constructed in accordance with the prior art list and bitmap methods, and also with the combination method described in accordance with the second embodiment. *Id.* at 9:27–30. As illustrated by Table 3, the size of S-PDUs resulting from the combination method described in the '215 patent is significantly smaller than that of the S-PDUs resulting from the prior art methods. *Id.* at 9:32–35.

C. Illustrative Claim

Of the challenged claims, claims 1, 15, 25, and 45 are independent. Claim 1 is reproduced below:

> 1. A method for minimizing feedback responses in an ARQ protocol, comprising the steps of:
>
> sending a plurality of first data units over a communication link;
>
> receiving said plurality of first data units; and
>
> responsive to the receiving step, constructing a message field for a second data unit, said message field including a type identifier field and at least one of a sequence number field, a length field, and a content field.

D. The Instituted Ground of Unpatentability

We instituted *inter partes* review of claims 1, 2, 4, 6, 8, 15, 22, 25, 26, 29, 32, 34, 45, 46, 49, 52, and 54 under 35

U.S.C. § 102 as anticipated by Seo (US 6,581,176, issued June 17, 2003) (Ex. 1002).

II. ANALYSIS

A. 35 U.S.C. § 315(b)

Patent Owner argues that "Petitioner is subject to the 35 U.S.C. § 315(b) bar as a privy to the D-Link Defendants, and because the D-Link Defendants are real parties-in-interest to this action, despite Petitioner's failure to designate them as such under 35 U.S.C. § 312(a)(2)." PO Resp. 8. According to Patent Owner, Petitioner is in privity with defendants named in the D-Link Lawsuit (*Ericsson Inc. v. D-Link Corp.*, 6:10-cv-473) because, *inter alia*, "[Petitioner] has an indemnity relationship with Dell and Toshiba." *Id.* at 8–12. Patent Owner also argues that the defendants named in the D-Link Lawsuit (the "D-Link Defendants") are real parties-in-interest to this proceeding because Petitioner has a "substantive legal relationship with at least Dell and Toshiba," Petitioner used the same prior art references as the D-Link Defendants, and the Petition was filed after the D-Link Defendants abandoned their invalidity case regarding the '215 patent in the D-Link Lawsuit. *Id.* at 12–14.

Petitioner counters that "[Patent] Owner has raised this identical argument twice, and failed each time," and that "[t]his third attempt relies on *exactly the same arguments [Patent] Owner made to this Board and the Federal Circuit* and should be rejected for the same reasons." Pet. Reply 1. Petitioner continues that,

"[Patent] Owner offers no new reason whatsoever for this Board to reverse its prior decision that [Patent] Owner's proferred 'evidence' and legal authorities fail to amount to anything more than 'speculation' or 'a mere possibility' that [Petitioner] is in privity with the DLink Defendants or that the D-Link Defendants are real parties-in-interest." *Id.* We find Petitioner's arguments persuasive.

Patent Owner's arguments and evidence are not different substantively from the arguments and evidence presented in its Motion for Additional Discovery (Paper 14). The arguments and evidence are unpersuasive for same reasons explained in our Decision on Patent Owner's Motion for Additional Discovery (Paper 23), which we adopt and incorporate by reference.

B. Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are interpreted according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *see also In re Cuozzo Speed Technologies, LLC*, No. 2014-1301, 2015 WL 448667, at *5–*8 (Fed. Cir. Feb. 4, 2015) ("Congress implicitly adopted the broadest reasonable interpretation standard in enacting the AIA," and "the standard was properly adopted by PTO regulation"). Under the broadest reasonable interpretation standard, claim terms are given their ordinary and customary meaning as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). An inventor may rebut

that presumption by providing a definition of the term in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). In the absence of such a definition, limitations are not to be read from the specification into the claims. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

1. "responsive to the receiving step, constructing a message field for a second data unit, said message field including a type identifier field"

Petitioner proposes that this phrase be construed as "responsive to the receiving step, generating a message field including a field that identifies the message type of the feedback response message from a number of different message types." Pet. 5. Petitioner states that this construction was proposed by Patent Owner and adopted by the Court in the D-Link Lawsuit. Pet. 8 (citing Ex. 1005, 9). Petitioner does not dispute this construction. Pet. 8. The proposed construction replaces "constructing" with "generating," and replaces "type identifier field" with "a field that identifies the message type of the feedback response message from a number of different message types." Although this construction has been adopted in the D-Link Lawsuit, we are not persuaded that it is the broadest reasonable interpretation of this limitation.

For example, the antecedent basis for "*the* feedback response message" in the proposed construction is the "feedback responses" of the preamble. "In general, a preamble limits the invention if it recites essential structure or steps, or if it is 'necessary to give life,

meaning, and vitality' to the claim." *Catalina Marketing Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (quoting *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999)). "Conversely, a preamble is not limiting 'where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention.'" *Id.* (quoting *Rowe v. Dror*, 112 F.3d 473, 478 (Fed. Cir. 1997)).

If we were to adopt Petitioner's proposed construction, it would introduce a dependency upon the preamble, thereby causing the preamble to limit the invention.[3] Accordingly, in the Decision to Institute, we explained that we were not persuaded that Petitioner's proposed construction would be the broadest reasonable interpretation of the claim because no term of the claim, as drafted, has its antecedent basis in the preamble. Dec. to Inst. 10.

Patent Owner argues that we provided, in the Decision to Institute, "no case law for [the] proposition that introducing a dependency upon the preamble would cause the preamble to limit the invention," and that this proposition "appears to be focused on antecedent basis issue." PO Resp. 26. As we explained in the Decision to Institute, Patent Owner's proposed construction uses the phrase "the feedback response," the antecedent basis for which is the "feedback response" of the preamble. Dec. to Inst. 10. We decline to construe claim 1 in a way that the

3. This result would be contrary to Petitioner's proposed construction of the preambles as non-limiting. Pet. 7, 8.

preamble becomes "necessary to give life, meaning, and vitality" to the claim. *Id.* Moreover, the plain language of claim 1 requires the "type identifier field" be included in a "message field for *a second data unit*" (emphasis added). It does not require that that "message field" be for a "feedback response." By requiring the recited "type identifier field" to "identif[y] a message type of *a feedback response message*," Patent Owner's proposed construction implicitly limits the recited "second data unit" to a feedback response message. Patent Owner provides no support for such a construction.

The '215 patent does not define explicitly the term "type identifier field," but does uses it several times to describe a field in an S-PDU that indicates whether that S-PDU includes a list or a bitmap. Ex. 1001, 6:20, 8:2, 8:16; *see also id.* at 7:58–61, 8:8–10, 8:55–57 (describing a "type identifier"). For example, Table 2 depicts a column labeled "Type Identifier," that includes NO_MORE, LIST', BITMAP', and ACK. *Id.* at 9:1–9. Accordingly, in the Decision to Institute, we construed "type identifier field" as "a field of a message that identifies the type of that message."

Patent Owner argues that our construction is overly broad because it "would cover a mere S-PDU as in the prior art . . . [b]ut the specification distinguishes 'the present invention' from the prior art S-PDU." PO Resp. 26 (citing Ex. 1001, 4:38–40, 4:43–63). Patent Owner does not elaborate. Petitioner counters that "[Patent] Owner concedes invalidity under the Board's construction based on the admitted prior art," and that "invalidity of the

claims in light of the prior art is not grounds for rejecting this Board's well-reasoned claim construction." Pet. Reply 4.

We are not persuaded by Patent Owner's arguments. Patent Owner's proposed construction differs from ours in that it limits the message to "a feedback message" and states explicitly what is only implicit in our construction—i.e., "from a number of different message types." It is not evident which of those two additional limitations Patent Owner contends distinguish the prior art S-PDU. Indeed, the '215 patent describes the prior art S-PDU as a "feedback response" (*See, e.g.,* Ex. 1001, 2:38–45) and describes how it may have a number of different message types (*See, e.g., id.* at 2:63–3:45, Figs. 2, 3). In any event, the '215 patent distinguishes "the present invention"—not the "type identifier field"—from the prior art. Even assuming that the patentee intended to draft the claims, as a whole, to distinguish a prior art S-PDU, Patent Owner identifies insufficient support in the claims or Specification for its proposed construction of the term "type identifier field."

Finally, in the Decision to Institute, we alternatively construed "type identifier field" as "any type of data." Dec. to Inst. 11–12. Patent Owner argues that "[b]ecause the type identifier field is not instructional or otherwise written material, the 'printed matter' doctrine does not apply." PO Resp. 27. According to Patent Owner, "the type identifier field in the challenged claims is not printed matter, and further, it defines functional characteristics of the claimed method and system." *Id.* at 31. We are persuaded that the recited "type identifier field" is not non-functional descriptive material.

Accordingly, we maintain our construction of "type identifier field" as "a field of a message that identifies the type of that message."

2. "means for receiving said plurality of first data units, and constructing one to several message fields for a second data unit, said one to several message fields including a type identifier field and at least one of a sequence number field, a length field, a content field, a plurality of erroneous sequence number fields, and a plurality of erroneous sequence number length fields, each of said plurality of erroneous sequence number fields associated with a respective one of said plurality of erroneous sequence number length fields"

Independent claim 45 recites a "means for receiving . . . ." Petitioner contends that this term is a means-plus-function element invoking 35 U.S.C. § 112, paragraph 6[4]. We agree because (1) the limitation uses the phrase "means for"; (2) the term "means for" is modified by functional language; and (3) the term "means for" is not modified by any structure recited in the claim to perform the claimed function. In the Decision to Institute, we determined that the function of the "means for receiving . . ." is

> *receiving* said plurality of first data units, *and constructing* one to several message fields for

4. Section 4(c) of the AIA re-designated 35 U.S.C. § 112, ¶ 6, as 35 U.S.C. § 112(f). Pub. L. No. 112-29, 125 Stat. 284, 296–07 (2011). Because the '215 patent has a filing date before September 16, 2012 (effective date), we will refer to the pre-AIA version of 35 U.S.C. § 112, in this decision.

> a second data unit, said one to several message fields including a type identifier field and at least one of a sequence number field, a length field, a content field, a plurality of erroneous sequence number fields, and a plurality of erroneous sequence number length fields, each of said plurality of erroneous sequence number fields associated with a respective one of said plurality of erroneous sequence number length field.

Dec. to Inst. 12–15. We also construed the structure for performing the recited function to be the sender and receiver of a peer entity. *Id.* Neither party disputes our initial construction of this term, and Patent Owner agrees with our determination of the corresponding structure (PO Resp. 31). We maintain our construction.

3. "for minimizing feedback responses in an ARQ protocol" (Preambles)

The preamble of each independent claim recites "for minimizing feedback responses in an ARQ protocol." In the Decision to Institute, we determined that the preambles do not limit the claims. Dec. to Inst. 15. Neither party disputes our initial construction of this term, and Patent Owner agrees with it (PO Resp. 32[5]). We maintain our construction.

---

5. Patent Owner's Response appears to have swapped headings IV.B.3 and IV.B.4 inadvertently, such that this claim term is argued under the heading "for minimizing feedback responses in an ARQ protocol," and that term is argued under the heading "means for sending."

4. "means for sending a plurality of first data units over said communication link to said second peer entity"

Independent claim 45 recites a "means for sending . . . ." Petitioner contends that this term is a means-plus-function element invoking 35 U.S.C. § 112, paragraph 6. We agree because (1) the limitation uses the phrase "means for"; (2) the term "means for" is modified by functional language; and (3) the term "means for" is not modified by any structure recited in the claim to perform the claimed function. In the Decision to Institute, we determined that the function of the "means for sending a plurality of first data units over said communication link to said second peer entity" is "sending a plurality of first data units over said communication link to said second peer entity." Dec. to Inst. 15–17. We also construed the structure for performing the recited function to be the sender of a peer entity. *Id.*

Neither party disputes our initial construction of this term, and Patent Owner agrees with our determination of the corresponding structure (PO Resp. 31–32[6]). We maintain our constructions.

C. The Challenged Claims – Anticipated by Seo

Petitioner argues that claims 1, 2, 4, 6, 8, 15, 22, 25, 26, 29, 32, 34, 45, 46, 49, 52, and 54 are unpatentable under 35 U.S.C. § 102(b) as anticipated by Seo. Pet. 21–45. In support of this ground of unpatentability,

6. *See* n.5 above.

Petitioner provides detailed explanations as to how each claim limitation is disclosed by Seo, and relies upon the Declaration of Dr. Bims (Ex. 1004). *Id.* (citing Ex. 1004 ¶¶ 31–70).

Patent Owner counters that claim 1 is not anticipated by Seo because (1) Seo's NAK_TYPE does not "identif[y] the message type of a feedback response message from a number of different message types," as the parties' proposed construction of "type identifier field" requires, because Seo discloses only a single message type; and (2) Seo's NAK_TYPE field is not included in a "message field," as required by each of the challenged claims. PO Resp. 37–40. Patent Owner also argues that Seo does not disclose a length field, as required by independent claim 15. *Id.* at 40–41.

Upon consideration of the parties' contentions and supporting evidence, we determine that Petitioner has demonstrated, by a preponderance of the evidence, that claims 1, 2, 4, 6, 8, 15, 22, 25, 26, 29, 32, 34, 45, 46, 49, 52, and 54 are anticipated by Seo.

Seo (Exhibit 1002)

Seo describes a method for transmitting control frames and user data frames in a mobile radio communications system. Ex. 1002, 1:10–12. Specifically, Seo discusses a modification of the Radio Link Protocol ("RLP") specified in international standard IS-707 for a Code Division Multiple Access ("CDMA") mobile radio communication system. *Id.* at 1:14–19, 5:28–30. According to the RLP retransmission procedure, a Negative Acknowledgement

("NAK") RLP control frame for a particular user data frame can be transmitted more than once at the same time to ensure reliability and, in response to receiving each NAK, the missing user data frame will be retransmitted. According to the invention of Seo, rather than transmitting each NAK corresponding to each missed user data frame, a single NAK corresponding to *all* missed user data frames is transmitted to the sender. *Id.* at 5:31–36.

Figure 4 of Seo is reproduced below:

FIELD	LENGTH (BITS)
SEQ	8
CTL	4
RE_NUM	2
NAK_TYPE	2
NAK_SEQ	4
L_SEQ_HI	4
FIRST	12
LAST	12
FCS	16
PADDING	VARIABLE
NAK_Map_Count	2
NAK_Map	
NAK_Map_SEQ	12
NAK_Map	8

FIG. 4

Figure 4 shows the structure of a RLP NAK control frame according to the invention of Seo. *Id.* at 5:42–43. The NAK control frame of Seo includes a field NAK_TYPE with a length of 2 bits to indicate a NAK type. *Id.* at 5:53–54.

Appendix K

If the value of NAK_TYPE is "00," the receiver is requesting retransmission of a range of missed user data frames (*Id.* at 5:54–57), and the fields FIRST, LAST, FCS, and padding exist (*Id.* at 6:18–19). FIRST is the 12-bit sequence number of the first data frame for which retransmission is requested. *Id.* at 5:63–65. LAST is the 12-bit sequence number of the last data frame for which retransmission is requested. *Id.* at 5:65–67. SEQ, with a length of 8 bits, is a data frame sequence number. *Id.* at 5:57–58.

If the value of NAK_TYPE is "01," the receiver is requesting retransmission of missed user data frames using a bitmap, and the field NAK_MAP_COUNT exists. *Id.* at 6:8–21. If the value of the field NAK_MAP_COUNT+1 exists, then the fields NAK_MAP_SEQ and NAK_MAP exist. *Id.* at 6:21–22. NAK_MAP_SEQ is the 12-bit sequence number of the first data frame in the NAK Map for which retransmission is requested. *Id.* at 6:8–11. NAK_MAP is an 8-bit bitmap identifying the missing user data frames for which retransmission is requested, wherein the most significant bit corresponds to the user data frame identified by NAK_MAP_SEQ+1. *Id.* at 6:11–15.

Analysis

In light of the arguments and evidence, Petitioner has demonstrated, by a preponderance of the evidence, that the challenged claims are unpatentable as anticipated by Seo.

For example, independent claim 1 recites "sending a plurality of first data units over a communication link." Seo discloses a "transmitting station" that sends user data frames to a "receiving station" over a "radio section between a receiving station and the transmitting station." Ex. 1002, 5: 28–41; *see also id.* at 8:24–27 ("transferring user data frames of a radio link protocol (RLP) from a transmitting station to a receiving station"), Fig. 6 ("Transmitting Station A"). The user data frames transport user traffic data. *Id.* at 1:21–22.

Claim 1 also recites "receiving said plurality of first data units." Seo discloses a "receiving station" that receives user data frames from the "transmitting station." *Id.* at 1:21–22, 5:28–41, 8:24–27, Fig. 6 ("Receiving Station B").

Finally, claim 1 recites "responsive to the receiving step, constructing a message field for a second data unit, said message field including a type identifier field and at least one of a sequence number field, a length field, and a content field." Seo discloses an "RLP NAK" message that includes a field NAK_TYPE that identifies whether the message identifies a range of sequence numbers or uses a bitmap. If the value of NAK_TYPE is "00," the RLP NAK message includes two fields—FIRST and LAST—with "the 12-bit sequence number of the first data frame for which a retransmission is required," and "the 12-bit number of the last data frame for which a retransmission is required," respectively. Ex. 1002, 5:54–57, 5:63–67, 6:17–18. If the value of NAK_TYPE is "01," the RLP NAK message includes a field NAK_MAP_SEQ with "the 12-bit

sequence number of the first data frame in this NAK Map for which [] retransmission is requested." *Id.* at 6:9–11. On this record, we are persuaded that Seo's RLP NAK message includes a type identifier field (NAK_TYPE), and a sequence number field (FIRST, LAST, or NAK_MAP_SEQ). We are persuaded that Seo discloses this limitation whether "type identifier field" is construed to mean "a field of a message that identifies the type of that message," or, in the alternative, to mean any type of data.

Claim 2 recites "wherein said message field comprises a bitmap message." Claim 6 recites similarly "wherein said content field comprises a bitmap." Seo discloses that, if the value of NAK_TYPE is "01," the RLP NAK message includes a field NAK_MAP "with a length of 8 bits [that] is a bit-map identifying the missing user data frames for which a retransmission is requested." *Id.* at 6:11–13. On this record, we are persuaded that Seo discloses claims 2 and 6.

Claim 4 recites "wherein said sequence number field includes any sequence number from said plurality of first data units." Claim 8 recites similarly "wherein said second data unit comprises information about missing or erroneous said first data units." As discussed above, the RLP NAK message includes fields with sequence numbers for which *re*transmission is requested—i.e., the sequence number of a data unit previously sent by the transmitting station but not missed by the receiving station. *See, e.g.*, *Id.* at 2:46–51 ("That is, the receiving station requests the transmitting station to retransmit the *missed* user data frames hereto.") (emphasis added). On this record, we are persuaded that Seo discloses claims 4 and 8.

Petitioner also argues that claims 15, 22, 25, 26, 29, 32, 34, 45, 46, 49, 52, and 54 are disclosed by Seo. Pet. 23–33, 38–41. We are persuaded that the evidence of record supports Petitioner's contentions.

Patent Owner presents several arguments as to how Petitioner has failed to provide an adequate reason to modify the references to reach the claimed invention and why Seo does not teach all of the limitations of the claims. PO Resp. 32–42. Petitioner responds to these arguments. Pet. Reply 1–15. We address each argument in turn below.

Whether Seo discloses "a number of different message types"

Patent Owner argues that, "the NAK_TYPE field in Seo does not 'identif[y] the message type of a feedback response message from a number of different message types' because Seo merely discloses a single message type." PO Resp. 37. According to Patent Owner, "Seo's NAK frame has a constant size and format, containing both a bitmap and a list, regardless of NAK_TYPE," and "the NAK frame . . . always contains the same fields whose content varies with the contents of the NAK_TYPE field." *Id.* at 38. Patent Owner continues that "Seo's NAK_TYPE field merely indicates which fields within the message field will contain zero values and which fields will contain non-zero values." *Id*. According to Patent Owner, "Figure 4 represents a single control frame that includes fields for both a list of first and last sequence numbers and bitmaps," and that the "only change is that certain fields contain non-zero values, depending on the value of the NAK_TYPE." *Id.* at 39.

Petitioner counters that "Seo never limits the NAK message to a fixed length," and that "[e]ven if all the NAK messages in Seo had the same fixed length, it would not prove that the NAK messages all have the same fields" because the length of a message does not necessarily determine its type. Pet. Reply 6. According to Petitioner, "Seo does not require that all fields shown in Figure 4 be used with all types of NAKs." *Id.* Petitioner continues that, "Seo describes how different fields 'exist' in different types of NAKs, as indicated by the value of NAK_TYPE." *Id.* at 6–7. We find Petitioner's arguments to be persuasive.

As an initial matter, Patent Owner's argument is based upon its proposed construction of "type identifier field," which we declined to adopt for the reasons above. In any event, we are not persuaded that Seo discloses only a single message type, as Patent Owner contends. Seo discloses explicitly that some fields in the RLP NAK control frame depicted in Figure 4 exist only if NAK_TYPE is "00," whereas other fields exist only if NAK_TYPE is "01." Ex. 1002, 6:18–22 ("[i]f a value of the field NAK_TYPE is '00', the fields FIRST, LAST, FCS, padding, exist. If a value of the 20 field NAK_TYPE is'01', the field NAK_MAP COUNT exi[st]. If a value of the field NAK_MAP COUNT+1 exists, there exist the fields NAK_MAP SEQ and NAK_MAP."); *see also id.* at claim 11. Patent Owner argues that Seo uses to the term "exist" to mean "contain non-zero values," and that those fields of Figure 4 which are not said to "exist" contain only zero values (PO Resp. 38–39), but cites nothing in Seo to support its interpretation. The only evidence Patent Owner offers is the testimony of its expert, Dr. Robert

Akl, who merely repeats the language of the Patent Owner Response. Ex. 2020 ¶ 51.

In contrast, Petitioner's expert, Dr. Bims, testifies that Seo uses the common sense meaning of "exist," and testifies that "it would make sense to include unnecessary fields in a NAK message, such as FIRST and LAST fields in a NAK message of the bitmap NAK_TYPE, or bitmap fields in a First/Last type of NAK." Ex. 1013 ¶¶ 4–6. In this regard, we credit the testimony of Dr. Bims. We conclude that Seo discloses an RLP NAK control frame that includes certain fields only when NAK_TYPE is "00" and includes other fields only when NAK_TYPE is "01." Accordingly, we are not persuaded by Patent Owner's argument that NAK_TYPE is not a "type identifier field" because it does not identify the type of a message from a number of different message types.

Whether NAK_TYPE is included in a "message field"

Patent Owner argues that, "NAK_TYPE is not part of the message, but rather part of the S-PDU header." PO Resp. 39. According to Patent Owner, "'the type identifier field' must be part of the 'said message field'" and distinguishes "fields that were included in the header of the PDU such as the PDU_format field shown in the admitted prior art." *Id.* at 39–40. Patent Owner argues that certain benefits of the invention are achieved because "the claimed 'type identifier field' [is] in the message body as opposed to the fixed length header." *Id.* at 40.

Petitioner counters that "neither the claims nor the specification of the '215 patent make a distinction between providing information in a 'header' versus in a 'payload' or in any other portion of a message." Pet. Reply 10. Petitioner continues that, "The '215 patent refers to its Figures 4-7 as 'messages' without differentiating any parts of those messages, such as those fields that include control information (type) and those fields that contain data content." *Id.* at 11 (citing Ex. 1013 ¶ 10). Moreover, according to Petitioner, "[t]he amendment did not add any requirement that a type identifier field be in a particular portion of the message (header, payload, or elsewhere);" instead, "the type identifier field was *always* part of the 'message field' – the amendment just made clear that the type identifier field was a necessary element, and not just one of several optional fields within the message field." *Id.* at 12. We find Petitioner's arguments to be persuasive.

Patent Owner relies entirely on the testimony of its expert, Dr. Akl, to support its construction of "message" as excluding headers. PO Resp. 39–40 (citing Ex. 2020 ¶¶ 52, 53). However, neither the claims nor the Specification of the '215 patent distinguish a header from the recited "message." Indeed, the term "header" is not even used in the '215 patent. Moreover, Dr. Bims testifies that "the type field in Figures 4-7 of the '215 patent contain bits that tell a receiver how to process the substance of the data that follows, and therefore, would be considered part of a header as opposed to a "payload." Ex. 1013 ¶ 10. We, therefore, see no basis to construe the term "message" to exclude a header. Accordingly, we are not persuaded that Seo's NAK_TYPE is not included in a "message field."

Appendix K

Dependent claim 15

Patent Owner argues that claim 15 requires that each message field must include a "length field" because it requires

> at least one of (i) '*a length field*', (ii) 'a plurality of erroneous sequence number-fields . . . each of said plurality of erroneous sequence number fields associated with a respective one of said plurality of erroneous sequence number *length fields*,' and (iii) 'a plurality of erroneous sequence number *length fields*.'

PO Resp. 41. In other words, Patent Owner contends that the "each of" clause at the end of claim 15 should be read in conjunction with "a plurality of erroneous sequence number-fields," recited earlier in the claim. *Id*. According to Patent Owner, "Seo does not disclose a length field" because "[n]either the FIRST/LAST nor the BITMAP section of the NAK Control frame teaches or discloses a length field. *Id*.

Petitioner counters that the "each of" clause should be read in conjunction with the "plurality of erroneous sequence number length fields," that immediately precedes it in the claim. Pet. Reply 14. According to Petitioner, "[Patent] Owner's argument gives no meaning to the phrase "at least one of." *Id*. We find Petitioner's arguments to be persuasive.

The "each of" clause references both "said plurality of erroneous sequence number fields" and "said plurality of erroneous sequence number length fields." Nothing about the clause itself suggests that it should be read in conjunction with the "plurality of erroneous sequence number-fields, as opposed to with the "plurality of erroneous sequence number length fields." When a claim recites, "at least one of A, B, and C, each of said B associated with said C," the intuitive interpretation is to read the "each of" clause as part of C. Patent Owner points to nothing in the Specification of the '215 patent that supports its counter-intuitive interpretation. Accordingly, we are not persuaded that claim 15 requires a "length field" and, therefore, are not persuaded that Seo fails to disclose claim 15.

Dependent claims

Patent Owner argues that dependent claims 2, 4, 6, 8, 22, 26, 29, 32, 34, 46, 49, 42, and 54 are not anticipated by Seo because they depend from an independent claim that is not anticipated. PO Resp. 41–42. We are not persuaded by Patent Owner's arguments regarding the independent claims for the reasons discussed above.

Conclusion

We are persuaded that Petitioner has demonstrated, by a preponderance of the evidence, that claims 1, 2, 4, 6, 8, 15, 22, 25, 26, 29, 32, 34, 45, 46, 49, 52, and 54 are unpatentable as anticipated by Seo.

D. Patent Owner's Motion to Exclude

Patent Owner's Motion to Exclude seeks to exclude (1) Exhibit 1010, entitled "TIA/EIA Interim Standard; Data Service Options for Wideband Spread Spectrum Systems," TIA/EIA/IS-707-A (Revision of TIA/EIA/IS-707); and (2) paragraph 7 of the Reply Declaration of Dr. Bims (Ex. 1013). Paper 53, 2–4. As movant, Patent Owner has the burden of proof to establish that it is entitled to the requested relief. *See* 37 C.F.R. § 42.20(c). For the reasons stated below, Patent Owner's Motion to Exclude is *dismissed as moot.*

Patent Owner argues that Exhibit 1010 should be excluded because (1) it is irrelevant under Rule 403 because it is dated 4–8 months after Seo and is not, therefore, contemporaneous evidence of how a person of ordinary skill in the art would have interpreted Seo; (2) Petitioner has not shown why the exhibit could not have been included in the Petition; (3) it does not respond to any argument raised by Patent Owner in its response; (4) it is not relevant to any issue in the case (Fed. R. Evid. 401, 403); (5) it has not been authenticated, and no evidence links it to the version of IS-707.2 referenced in Seo (Fed. R. Evid. 901); and (6) it is inadmissible hearsay because Broadcom is attempting to prove the truth of the matter asserted, including its alleged publication date (Fed. R. Evid. 801, 802). Paper 53, 2–3 (citing *Hilgraeve, Inc. v. Symantec Corp.*, 271 F. Supp. 2d 964, 974–75 (E.D. Mich. 2003)). Patent Owner argues that paragraph 7 of Dr. Bims' Declaration should be excluded because it "[f]or the same reasons above as to Exhibit 1010." *Id.* at 4.

Because we have not relied upon Exhibit 1010, the motion is *dismissed* as moot as to Exhibit 1010 and paragraph 7 of Exhibit 1013.

III. CONCLUSION

Petitioner has shown, by a preponderance of the evidence, that claims 1, 2, 4, 6, 8, 15, 22, 25, 26, 29, 32, 34, 45, 46, 49, 52, and 54 of the '215 patent are unpatentable.

IV. ORDER

Accordingly, it is

ORDERED that pursuant claims 1, 2, 4, 6, 8, 15, 22, 25, 26, 29, 32, 34, 45, 46, 49, 52, and 54 of the '215 patent are held unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Exclude is *dismissed as moot*; and

FURTHER ORDERED that, because this is a Final Written Decision, the parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

APPENDIX L — DECISION OF THE UNITED STATES PATENT AND TRADEMARK OFFICE, PATENT TRIAL AND APPEAL BOARD, DATED FEBRUARY 20, 2014

UNITED STATES PATENT AND
TRADEMARK OFFICE

BEFORE THE PATENT TRIAL
AND APPEAL BOARD

BROADCOM CORPORATION,

Petitioner,

v.

TELEFONAKTIEBOLAGET LM ERICSSON
AND ERICSSON, INC.,

Patent Owner.

Cases IPR2013-00601
Patent 6,772,215 B1

Before KARL D. EASTHOM, KALYAN K. DESHPANDE, and MATTHEW R. CLEMENTS, *Administrative Patent Judges.*

EASHTOM, *Administrative Patent Judge.*

DECISION
Request for Rehearing
37 C.F.R. § 42.71(d)

Appendix L

Patent Owner, "Ericsson," requests rehearing, Paper 27 ("Reh'g Req."), of the Decision on Ericsson's Motion for Additional Discovery, Paper 23 ("Dec. on Mot."), which denies additional discovery by Ericsson of material possessed by Petitioner, "Broadcom." Ericsson requests that the Board reverse its decision and allow for limited discovery. Reh'g Req. 8. The request is *denied*.

Ericsson argues that the Board erred "(a) in its holding that limitation of discovery holds a higher statutory priority than limitation of duplicative proceedings; and (b) in its holding that 'Broadcom must have had control over the Texas Litigation' before [the] 35 U.S.C. § 315(b) bar may be invoked."[1] Reh'g Req. 2.

Ericsson's first argument is new. This new rehearing argument is improper. "The [rehearing] request must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed in a motion . . . ." 37 C.F.R. § 42.71(d); *see also* 37 C.F.R. § 42.71(c) ("a panel will review the [rehearing] decision for an abuse of discretion.")[2]

---

1. *Ericsson Inc., et al. v. D-LINK Corp., et al.*, Civil Action No. 6:10-CV-473 (LED/KGF) ("Texas Litigation").

2. An abuse of discretion may be determined if a decision is based on an erroneous interpretation of law, if a factual finding is not supported by substantial evidence, or if the decision represents an unreasonable judgment in weighing relevant factors. *Arnold Partnership v. Dudas*, 362 F.3d 1338, 1340 (Fed. Cir. 2004).

Appendix L

The Board could not have misapprehended or overlooked an argument presented for the first time in Ericsson's Rehearing Request. Ericsson fails to point the Board to where it made the argument or where the Board made the alleged holding regarding "a higher statutory priority." The Board carefully balanced numerous factors and determined that Ericsson failed to meet the statutorily mandated "interests of justice" standard for additional discovery. *See* Dec. on Mot. 5 (citing 35 U.S.C. § 316(a)(5) ("such discovery shall be limited to . . . what is otherwise necessary in the interest of justice")); *id.* at 4–16 (balancing factors, addressing precedent and legislative history).

Ericsson's second argument does not show that the Board erred in determining that the weight of authority requires some control over the Texas Litigation by Broadcom to show privity. *See* Dec. on Mot. 7 (citing and discussing "long-standing precedent"). Ericsson relies heavily on one of the cases cited in the Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,759, 48,760 (Aug. 14, 2012)("TPG")—*Cal. Physicians' Serv. v. Aoki Diabetes Research Inst.* 163 Cal. App. 4th 1506, 1524 (Cal. App. 2008). *See* Reh'g Req. 5–7. Ericsson ignores the weight of authority cited by the Board that shows control over prior litigation is a crucial factor normally required to bind a party to that prior litigation using collateral estoppel. *See* Dec. on Mot. 7-10; Reh'g Req. 5–7.

Immediately before citing *Aoki* as an example, the TPG qualifies *Aoki* as follows: "But whether something less than *complete funding and control* suffices to justify

similarly treating the party requires consideration of the pertinent facts. *See e.g.*, *Cal. Physicians' Serv. v. Aoki Diabetes Research Inst.* 163 Cal. App. 4th 1506, 1524 (Cal. App. 2008) . . . ." (Emphasis added). In other words, although the TPG cites *Aoki*, it retains an emphasis on control. In other places, for example, the TPG states that "[a] common consideration is whether the non-party exercised control over a party's participation in a proceeding" and "the rules do not enumerate particular factors regarding a 'control' theory." TPG at 48,759.

Ericsson also quotes selectively from the Board's decision, ignoring the phrase "in normal situations" that qualifies the language it quotes. *See* Reh'g Req. 7 (discussing the Board's rationale that "Broadcom must have had control over the Texas Litigation"); Dec. on Mot. 7. The Board's characterization of the law in the previous sentence, Dec. on Mot. 7 ("[t]o show privity requires a showing that Broadcom would be bound to the outcome of the Texas Litigation") is consistent with the characterization by the court in *Aoki*, 163 Cal. App. 4th at 1524 ("[t]he question is whether, under the circumstances as a whole, the party to be estopped should easonably have expected to be bound by the prior adjudication.").

Ericsson is essentially correct in that *Aoki* held that "'preclusion can apply even in the absence of . . . control.'" Reh'g Req. 7 (quoting *Aoki*, 163 Cal. App. 4th at 1524). Nevertheless, *Aoki* also noted that "control over the prior action is commonly present" in collateral estoppel applications. *Id. Aoki* is also highly fact specific, as are typical cases involving collateral estoppel. *See* Dec. on Mot. 7-10.

Aoki begins its privity analysis by noting that "the doctrine [of collateral estoppel] applies 'only if several threshold requirements are fulfilled. First, the issue sought to be precluded from relitigation must be identical to that decided in a former proceeding.'" *Id.* at 1520 (citation omitted). Departing from the normal privity rule that requires control, and delineating its finding of privity based on a community of interest theory, which included a finding of an identical issue to be precluded, *see id.* at 1521 (discussing exact same single issue of denial of coverage for an experimental procedure), the court cited as an important factor, "prevent[ing] the possibility of a dramatically inconsistent judgment," *id.* at 1524.

On its face, this important factor, preventing a "dramatically inconsistent judgment," underlies or coalesces with the fundamental threshold requirement enunciated by *Aoki*—precluding only the identical issue previously litigated—which issue, of course, is necessary to produce a (later) inconsistent judgment. That concern is not present in this proceeding. In general, as compared to district courts, different burdens of proof, different presumptions, different claim construction standards for unexpired patents, and different prior art, typically apply to PTAB proceedings. *See* 37 C.F.R. § 42.100(b); TPG at 48,766 (the broadest reasonable construction standard). Of course, Congress was aware of the differences between the two proceedings when it listed a "privy" as precluded from a time-barred *inter partes* proceeding under 35 U.S.C. 315(b). Therefore, although identical issues may not be required to establish privity through collateral estoppel at the PTAB, the TPG emphasizes control, which implies that control is an important factor to establish privity in the absence of identical issues and otherwise.

In other words, while the TPG and 35 U.S.C. 315(b) may indicate a relaxation, to a certain extent, of collateral estoppel principles, and *Aoki* generally may present guiding principles regarding privity, *Aoki* also recognizes that "[n]otions of privity have been expanded *to the limits of due process*." 163 Cal. App. 4th at 1522 (citation omitted) (emphasis added). In order to bind a non-party under collateral estoppel, this expansion cannot exceed the bounds of due process. Ultimately, Ericsson does not show that the Board overlooked a material consideration in determining that Ericsson failed to meet its burden of showing that additional discovery would have more than a mere possibility of showing that Broadcom should be bound by the Texas Litigation. *See* Dec. on Mot. 11-13.

DECISION on REHEARING

Ericsson's sought-after relief is DENIED.

APPENDIX M — DECISION OF THE UNITED STATES PATENT AND TRADEMARK OFFICE, PATENT TRIAL AND APPEAL BOARD, DATED JANUARY 24, 2014

UNITED STATES PATENT
AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL
AND APPEAL BOARD

BROADCOM CORPORATION

Petitioner,

v.

TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)

Patent Owner.

Cases IPR2013-00601(Patent 6,772,215 B1)
IPR2013-00602 (Patent 6,446,568 B1)
IPR2013-00636 (6,424,625 B1)[1]

Before KARL D. EASTHOM, KALYAN K. DESHPANDE, and MATTHEW R. CLEMENTS, *Administrative Patent Judges.*

EASHTOM, *Administrative Patent Judge.*

---

1. The Board exercises its discretion to issue one Order to be filed in each case. The parties are not authorized to use this heading style.

Appendix M

DECISION
Ericsson's Motion for Additional Discovery
37 C.F.R. § 42.51(b)(2)

Introduction

Patent Owner ("Ericsson") filed a redacted motion for additional discovery in the instant proceedings (Paper 13, "Mot." or "Motion"), and Petitioner ("Broadcom") filed a redacted opposition (Paper 16 "Opp." or "Opposition").[2] In its Motion, Ericsson requests discovery regarding indemnity agreements, defense agreements, payments, and email, or other communications, between Broadcom and defendants ("D-Link Defendants") in related litigation, *Ericsson Inc., et al. v. D-LINK Corp., et al.*, Civil Action No. 6:10-CV-473 (LED/KGF) ("Texas Litigation"). *See* Mot.; Ex. 2001 ("Patent Owner's Requests for Production," hereinafter "Request").

In the Texas Litigation, a jury found Ericsson's challenged patents in the instant proceedings infringed by the D-Link Defendants due partly to their use of Broadcom's Wi-Fi compliant products. *See* Pet. 1–2. Broadcom was not a party to the Texas Litigation. *Id.* at 1. According to Broadcom, the jury did not address the issue of validity with respect to the patents challenged in IPR2013-00601 and IPR2013-00602. *See* IPR2013-00601, Paper 3, 2; IPR2013-00602, Paper 2, 1-2. Ericsson maintains that the requested discovery will show

2. The parties also filed sealed redacted versions. *See* note 3. Unless otherwise noted, reference throughout is to redacted papers filed in IPR2013-00636. The same or similar papers are filed in the other two cases, IPR2013-00601 and IPR2013-00602.

that "Broadcom is in privity with at least one D-Link Defendant" in the Texas Litigation. Mot. 4.

For the reasons stated below, Ericsson's motion is *denied*.

35 U.S.C. § 315(b)

Under 35 U.S.C. § 315(b), "[a]n inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent." Broadcom does not dispute that one or more of the D-Link Defendants were served with a complaint more than one year prior to the filing of the Petition. Therefore, if Ericsson can show privity existed between the D-Link Defendants and Broadcom in the Texas Litigation, an *inter partes* review may not be instituted under 35 U.S.C. § 315(b). *See* Paper 9 (Order Authorizing Motion for Additional Discovery).

Request

Pursuant to its discovery Motion, Ericsson seeks the following discovery items:

> 1. All executed contracts or agreements between Broadcom and any of the D-Link Defendants relating to Wi-Fi compliant products, such as the BCM4313 and BCM4321, that are used in any of the D-Link Defendants' products accused of infringement in the D-Link Litigation.

2. All executed contracts or agreements between Broadcom and any of the D-Link Defendants that include any indemnity or duty to defend provisions.

3. All joint defense agreements, or other agreements addressing cooperation on the defense of the D-Link Litigation, between Broadcom and any of the D-Link Defendants relating to the D-Link Litigation.

4. All invoices provided to or received from any of the D-Link Defendants, or their counsel, seeking reimbursement for any fees or expenses incurred in the D-Link Litigation.

5. Records of any payments made by Broadcom to any of the D-Link Defendants, or their counsel, or to Ericsson, pursuant to any actual or alleged contractual duty to defend or indemnify any [of] the D-Link Defendants for any fees or expenses incurred in the D-Link Litigation.

6. All emails and written correspondence between any of the D-Link Defendants, or their counsel, and Broadcom, or its counsel, relating to any claimed duty of Broadcom to defend or indemnify any of the D-Link Defendants in the D-Link Litigation from January 1, 2010 to the present.

Appendix M

> 7. All emails and written correspondence between Broadcom, or its counsel, and any of the D-Link Defendants, or their counsel, from January 1, 2010 to the present relating to:
>
> > A. The filing of IPR2013-00601, IPR2013-00602, and IPR2013-00636;
> >
> > B. Intervention by Broadcom in the D-Link Litigation;
> >
> > C. The claim construction or interpretation of any of the patents at issue in the D-Link Litigation, including, but not limited to, the '568 Patent, the '625 Patent, or the '215 Patent; and
> >
> > D. The validity or alleged invalidity of any of the patents at issue in the D-Link Litigation, including, but not limit[ed] to, the '568 Patent, the '625 Patent, or the '215 Patent.

Ex. 2001.

Analysis

To show privity, Ericsson relies, *inter alia*, on known indemnity agreements, wherein Broadcom agreed to indemnify certain D-Link Defendants. Ericsson also relies on allegations about litigation activity by Broadcom,

filing of an amicus appeal brief by Broadcom in the Texas Litigation, SEC filings, communications with Acer, Inc., a D-Link Defendant, Broadcom's use of Ericsson's expert report in the filing of the Petition, timing of the filing of the IPRs, and email correspondence about indemnity and other matters. *See* Mot. 1-7 (citing Ex. 1010; Exs. 2002-2017).[3] For its part, Broadcom asserts that "Broadcom is not in privity with the Texas Defendants, and no amount of discovery in this proceeding or in the Texas Litigation will prove otherwise." Opp. 2.

Pursuant to the America Invents Act (AIA), certain discovery is available in *inter partes* review proceedings. *See* 35 U.S.C. § 316(a)(5); 37 C.F.R. §§ 42.51-53. Discovery in an *inter partes* review proceeding, however, is less than what is normally available in district court patent

3. As indicated above, note 2, in addition to the redacted papers, the parties filed un-redacted papers that remain under seal: Ericsson filed a protected motion, Paper 11, with protected exhibits that remain under seal. Similarly, Broadcom filed a protected opposition, Paper 16, and a protected exhibit, Ex. 1017, that remain under seal. (Broadcom should clarify if Exhibit 1018 is to be placed under seal. It appears, based on the face of the document and related characterizations, that it contains confidential information. It is under seal at PTAB at this time.) After review of the un-redacted materials, the Board determines that they do not alter the outcome. In this Motion Decision, Broadcom's sealed opposition and exhibits are not addressed further, because they do not impact Ericsson's initial burden of showing that the requested discovery is necessary in the interests of justice. Ericsson's sealed motion, Paper 11, additionally shows confidential litigation activity by Broadcom that fails to imply or show control by Broadcom over the Texas Litigation.

litigation, as Congress intended *inter partes* review to be a quick and cost effective alternative to litigation. *See* H. Rep. No. 112-98 at 45-48 (2011). A party seeking discovery beyond what is expressly permitted by rule must do so by motion, and "must show that such additional discovery is in the interests of justice." 37 C.F.R. § 42.51(b)(2)(i); *accord* 35 U.S.C. § 316(a)(5) ("such discovery shall be limited to . . . what is otherwise necessary in the interest of justice").

The AIA legislative history makes clear that additional discovery should be confined to "particular limited situations, such as minor discovery that PTO finds to be routinely useful, or to discovery that is justified by the special circumstances of the case." 154 Cong. Rec. S9988-89 (daily ed. Sept. 27, 2008) (statement of Sen. Kyl). In light of this, and given the statutory deadlines required by Congress for *inter partes* review proceedings, the Board must be conservative in authorizing additional discovery. *See id.*

An important factor in determining whether additional discovery is in the interests of justice is whether there exists more than a "mere possibility" or "mere allegation that something useful [to the proceeding] will be found." *Garmin International, Inc. et al. v. Cuozzo Speed Technologies LLC*, IPR2012-00001, Paper 20, 2–3, "Order––Authorizing Motion for Additional Discovery" (listing important factors to determine whether a discovery request meets the applicable standard) (hereinafter the "Garmin factors"); *accord Apple v. Achates Reference Publishing, Inc.*, IPR2013-00080, Paper 18, "Decision––Achates Motion for Additional Discovery" (applying the

Garmin factors to indemnity agreements). The party seeking discovery must come forward with some factual evidence or support for its request. *See* IPR2012-00001, Paper 26 (decision addressing the Garmin discovery factors).

Whether a non-party is a "real party-in-interest" or "privy" for purposes of an *inter partes* review proceeding is a "highly fact-dependent question" that takes into account how courts generally have used the terms to "describe relationships and considerations sufficient to justify applying conventional principles of estoppel and preclusion." *Office Patent Trial Practice Guide*, 77 Fed. Reg. 48,756, 48,759 (Aug. 14, 2012) ("Trial Practice Guide" or "TPG"). Whether parties are in privity, for instance, depends on whether the relationship between a party and its alleged privy is "sufficiently close such that both should be bound by the trial outcome and related estoppels." *Id.* Depending on the circumstances, a number of factors may be relevant to the analysis, including whether the non-party "exercised or could have exercised control over a party's participation in a proceeding," and whether the non-party is responsible for funding and directing the proceeding. *Id.* at 48,759-60.

Ericsson's evidence does not amount to more than a "mere allegation that something useful will be found" to show privity, as is required by the first Garmin factor. To show privity requires a showing that Broadcom would be bound to the outcome of the Texas Litigation. To be bound, in normal situations, Broadcom must have had control over the Texas Litigation. According to long-standing

precedent, *Bros, Inc. v. W.E. Grace Mfg. Co.*, 261 F.2d 428, 429 (5th Cir. 1958), when a patent holder sues a dealer, seller, or distributer of an accused product, as is the case at hand, indemnity payments and minor participation in a trial are not sufficient to establish privity between the non-party manufacturer of the accused device and the defendant parties:

> While the mere payment of counsel fees or participation in a trial by one not a named party to it would not alone be sufficient, *cf. I.T.S. Rubber Co. v. Essex Co.*, [] 272 U.S. 429 [(1926)]. . . Restatement, Judgment § 84, comment e (1942), the extent and nature of that participation may completely alter the consequences. This is particularly so in patent infringement cases in which, from tactical or strategic considerations relating to venue, desirability of a particular forum and the like, such cases are so often filed and tried against a dealer, a seller, a distributor, or a user of the accused device manufactured by another. If the manufacturer stands aloof, he risks a judgment adverse to his interest resulting perhaps from inadequate or incompetent defense by one who has a secondary interest. *Such judgment, to be sure, would normall[y] not be binding by estoppel or res judicata,* but it would take its place in the jurisprudence where its practical effect as stare decisis might be as decisive. The alternative, of course, is to jump in and give the case full and active defense as though the

> manufacturer were the real named party. This assures that the issues will be presented and contested in a way deemed most effective by the nominally remote, but practically immediate, party at interest.

261 F.2d at 429 (emphases added); cited with approval by *Emerson Elec. Co. v. Black and Decker Mfg. Co.*, 606 F.2d 234, 242, n. 20 (8th Cir. 1979) ("If Emerson does control the Maryland suit, the outcome will be binding on, or inure to the benefit of, Emerson under principles of res judicata."); *see also United States v. Webber,* 396 F.2d 381, 387 (3d Cir.1968) (finding that appellants were "privies" because of their "control over and interest in the earlier litigation.")

Bros, Inc. relies on a long line of precedent to support the normal rule that privity requires a finding of active control of the trial:

> Where that course is followed and the non-party actively and avowedly conducts the defense, manages and directs the progress of the trial at its expense and under its supervision, the outcome, which if favorable would have redounded to his benefit, if adverse becomes sauce for goose and gander alike, and binding under principles of res judicata. *Minneapolis-Honeywell Regulator Co. v. Thermoco, Inc.*, 116 F.2d 845 (2d Cir. 1941); *Nash Motors Co. v. Swan Carburetor Co.*, 105 F.2d 305 (4th Cir. 1939); *Warford Corp. v. Bryan Screw Machine*

> *Products Co.*, 44 F.2d 713 (6th Cir. 1930); *N. O. Nelson Manufacturing Co. v. F. E. Myers & Bro. Co.*, 25 F.2d 659 (6th Cir. 1928); *Beyer Co. v. Fleischmann Co.*, 15 F.2d 465 (6th Cir. 1926); Restatement, Judgments 84, comment b, illustration 5 (1942).

261 F.2d at 429 (citations reformatted).

Similarly, under *TRW Inc. V. Ellipse Corp.*, 495 F.2d 314, 318 (7th Cir. 1974), "the crucial distinction . . . is the extent of participation, for privity in the law of judicial finality usually connotes representation." In *Dentsply Intern., Inc. v. Kerr Mfg. Co.*, 42 F.Supp.2d 385 (D.Del. 1999), the court characterized *TRW* as requiring control of the trial to show privity:

> In *TRW*, the Court of Appeals for the Seventh Circuit refused to apply the doctrine of res judicata to TRW, a nonparty, who agreed to indemnify a named party in a prior suit, but whose role in the prior suit was limited to observing the proceedings and filing amicus curiae briefs. In reaching this conclusion, the court noted that *the crucial distinction* between *TRW* and other cases, in which nonparty indemnitors were found to have interests sufficiently close for establishing privity for res judicata purposes, was TRW's *limited extent of participation in the prior lawsuit.* Indeed, *the court explicitly distinguished* TRW*'s situation from the situation in*

> *which a nonparty indemnitor retained the indemnitee-defendant's counsel and controlled the litigation.*

Dentsply, 42 F.Supp.2d at 398 (emphasis added).

Contrary to Ericsson's assertion that "[t]he weight of authority strongly supports that an indemnity agreement . . . establish[es] privity," Mot. 6, *Bros. Inc, TRW*, *Dentsplay* and other cases noted *supra* illustrate that more is required. Control of the litigation, or some sort of representation, constitutes a "crucial" factor. *Dentsply*, 42 F.Supp.2d at 398.

Ericsson relies, *inter alia*, on *Jennings v. U.S.*, 374 F.2d 983, 985 (4th Cir. 1967) for the following proposition: "where an indemnitor is notified and can take part in – indeed may control – the litigation, he is precluded from contesting the indemnitee's liability in the subsequent indemnity action." Mot. 5. Ericsson does not explain how this *dicta* in *Jennings* applies to the situation at hand or otherwise supports a departure from the long-standing rule that includes control or representation as a crucial factor that may bind a non-party to a trial outcome.

For example, in *Dentsplay*, the court found that "even if Centrix was ultimately relieved of its legal duty to defend and indemnify Kerr, as a factual matter, Centrix did defend Kerr for approximately two years, in a manner which was consistent with various terms of the agreement." 42 FSupp. 2d at 396, n. 4. Certain indemnity agreements involved in *Dentsply* corroborated control of the litigation, and the court found *extensive participation*

in the litigation by indemnitor Centrix. *See id.* at 397-399. "Because of the contractual relationship between Centrix and Kerr, Centrix's extensive participation in the litigation and Centrix's knowledge of the injunction, the Court concludes that privity exists between Kerr and Centrix." *Id.* at 399.

Nevertheless, Ericsson seeks to discover indemnity agreements and asserts that certain SEC filings show that "it is not uncommon for Broadcom" to indemnify its customers. Mot. 1 (citing Ex. 2005, 46). Ericsson also asserts that "Broadcom does not deny the existence of such indemnity agreements." Mot. 7. Ericsson attaches an order from the Texas Litigation, Ex. 2016, in which the district court mentions two indemnity agreements and an e-mail communication about indemnity.[4]

Ericsson also attaches evidence of other litigation activity by Broadcom (which remains under a protective order in this proceeding), Ex. 2009, and attaches a "Motion of Amici Wi-Fi Chip Companies Broadcom Corporation . . . for Leave to File Amicus Brief" in the Court of Appeals for the Federal Circuit," Ex. 2017, as further evidence of collusion, litigation activity, or control by Broadcom.

---

4. In the order, the court denied Ericsson's motion to release discovery of those items, partially because it was under a protective order there, and granting the motion would undermine the negotiations which produced the protective order and discovery items. *See* Ex. 2016, 3. The court noted that granting Ericsson's motion would allow Ericsson to employ the district court's broader "relevancy" standard and circumvent the PTO's narrower standard. *Id.*

The totality of this evidence fails to amount to more than a "mere possibility" that Broadcom controlled, or could have controlled, the Texas Litigation. Paying for trial expenses pursuant to indemnity normally does not establish privity or control. Therefore, the sought-after indemnity agreements, and the requested discovery items seeking evidence of payment pursuant to indemnity or other agreements, fail to amount to more than a "mere allegation that something useful will be found" to establish privity. *See* Ex. 2001 (discovery items 1–6, also listed *supra*).

Similarly, although filing an amicus brief shows interest in the outcome, it only shows some potential future control as a non-party over the appeal of an issue of damages. *See* Ex. 2017, 2 (motion by Broadcom to file amicus brief to address royalties and noting that the "award may also provoke indemnity issues"). Filing an amicus brief on appeal does not bind Broadcom to the trial below outcome or show that Broadcom exercised control over that outcome. *See Dentsplay*, 42 F.Supp.2d at 398 (quoted *supra*, discussing *TRW*––agreeing to indemnify a named party, but having a role limited to observing the proceedings and filing amicus curiae briefs, is insufficient to show privity). The other litigation activity by Broadcom in another forum, Ex. 2009 (under seal), appears to have occurred during the Texas Litigation, prior to the court's entry of judgment. Nonetheless, it does not show control of the Texas Litigation or otherwise show that Broadcom would be bound by that outcome.

Ericsson also requests discovery of "emails and written correspondence," Ex. 2001 (discovery requests 6, 7), between Broadcom and the D-Link defendants relating to "[i]ntervention by Broadcom in the DLink Litigation," *id.* (request 7), relating to a duty to defend or indemnify, *id.* (request 6) and also "agreements addressing cooperation on the defense of the D-Link Litigation," *id.* (request 3). Other than indemnity agreements, Ericsson does not provide sufficient evidence, if any, that any such other agreements exist or were discussed.

Ericsson also does not explain how a discovery request regarding intervention would show privity on the part of non-party Broadcom. For its part, Broadcom asserts that "Ericsson chose, for its own strategic reasons, not to sue [Broadcom] in this case." Opp. 1. The evidence also indicates that Ericsson partially opposed another manufacturer's motion to intervene. *See* Ex. 2006, 1. As Broadcom points out, participation in joint defense groups, even if such a group exists, also fails to show privity. *See* Opp. 5–6, n. 4; TPG 48,760 ("Joint Defense Group," by itself, insufficient to show privity).

Ericsson also asserts that filing a request for IPR (*inter partes* review) and the other noted litigation activity, Ex. 2009, constitutes evidence of "Broadcom filing litigation on behalf of its customers pursuant to its indemnity obligation." *See* Mot. 1; Ex. 2001 (discovery request 7A, IPR filings). Ericsson's allegation amounts to conjecture because Ericsson does not show how IPR filings and other filings were pursuant to indemnity agreements, and even if they were, the IPR filings fail

to show control over the Texas Litigation. The evidence does not amount to more than speculation that any of Broadcom's activity constitutes evidence of collusion with the D-Link defendants in the Texas Litigation in a manner that would bind Broadcom to the outcome thereof.

Ericsson also asserts that Broadcom's reliance, in its IPR filings, on "a majority of the same references that the defendants relied upon for their invalidity claims in the D-Link lawsuit" shows "coordination [that] raises serious questions about wither Broadcom is in privity with the defendants." Mot. 3. Ericsson also asserts that the IPR filings rely heavily on Ericsson's expert report from the Texas Litigation. *Id*. Again, these allegations of "serious questions" amount to just that, questions or speculation about collusion or control. Filing IPRs does not constitute evidence that shows control over prior litigation. Broadcom, as a manufacturer of accused products, had an interest in the trial; however, using some of the same trial evidence, including known prior art, in the IPR proceedings, and using an expert report, does not constitute evidence beyond mere speculation that Broadcom controlled, or should be bound by the outcome of, the Texas Litigation.

Ericsson's assertion that D-Link Defendant Acer sought "to discuss comments from Acer's vendors," including Broadcom, also fails to show control. *See* Mot. 2 (citing Ex. 2007). Even if the record shows that Acer sought to discuss the accused products with Broadcom, the manufacturer of the products, this implies control by Acer, not Broadcom. *See* Ex. 2007. As Broadcom also

points out, providing technical information to customers does not establish control over the trial. Opp. 5.

Ericsson also asserts that "Acer admitted" that some Texas Litigation discovery that Acer produced was "privileged" and shows that "a privilege exists that protects communications between Acer and Broadcom." Mot. 2 (discussing Ex. 2008). The relevance of this assertion is not clear. The emails show that Acer's counsel relies on the "Protective Order[, which] mandates that designated information may only be used for purposes of litigation between the parties," and that "fact discovery and trial in the Ericsson v. D-Link case concluded long ago." Ex. 2008 (email dated Dec. 4, 2013 11:44AM; *accord* email Dec. 5, 2013 1:46PM and other emails attached). Acer's counsel also stated that "as far as we understand it, the IPR is a proceeding initiated by Broadcom to which our clients are not parties" and "[w]e do not believe our clients are under any obligation to respond to your request." *Id.* (email dated Nov. 12, 2013 4:55 PM). This email chain shows that Acer's counsel sought to abide by the trial court's protective order, and does not imply any control by Broadcom over Acer's actions in the Texas Litigation.

Ericsson's discovery request for correspondence between Broadcom and the D-Link Defendants regarding claim construction and invalidity positions "including, but not limited to, the '568 Patent, the '625 Patent, or the '215 Patent," Ex. 2001 (requests 7C, 7D), also amounts to a speculative request. Ericsson does not point the Board to evidence that documents about some of these positions exist or that communication about them occurred.

Moreover, the request is overly broad because it is not limited to patents at issue here. Ericsson fails to explain how discovering information about other patents bears on control over the Texas Litigation.

The request for "all executed contracts or agreements between Broadcom and any of the D-Link Defendants relating to Wi-Fi compliant products," Ex. 2001 (request 1), seeks discovery that broadly embraces Broadcom's commercial activity including, for example, contracts regarding the sale of such products. Ericsson fails to explain how such broad information "relating" to selling accused products shows that Broadcom was in privy with the D-Link Defendants. The breadth and cost of searching for all potential agreements, which may include sales or other agreements, weighs against Ericsson's request.

The evidence and arguments fail to show that the sought-after discovery would have more than a mere possibility of producing useful privity information, i.e., that Broadcom controlled or could have controlled the Texas Litigation. This Garmin factor weighs heavily against Ericsson. The privity precedent outlined *supra* shows that determining whether privity exists, especially without some evidence of actual control of a trial, typically spirals into what amounts to a separate trial that involves a myriad of considerations. This impacts the PTAB's mandate to expedite the proceedings and provide limited discovery in the interests of justice. In the attached order denying Ericsson's request, the court in the Texas Litigation noted that "*[a]ccording to Ericsson*, the Indemnity documents show Broadcom is in privity with

Dell and Toshiba, *or at least show additional discovery is warranted on the issue*." Ex. 2016, 2 (emphasis added). The AIA discovery procedures do not contemplate allowing discovery on the basis that it may show that "additional discovery is warranted."

The Board agrees with Ericsson that the requests are simple to understand, and that this Garmin factor weighs in Ericsson's favor. *See* Mot. 6–7, n. 5. Nevertheless, that and other Garmin factors, including the ability to generate equivalent information, and seeking litigation positions by other means, do not outweigh the Garmin factor related to discovering useful information discussed above.

Other than the indemnity agreements, certain email correspondence, certain litigation activity, and other tangential items, Ericsson has not provided evidence to show that there is more than a mere possibility that the sought-after discovery even exists. Ericsson has not shown that the soughtafter discovery has more than a mere possibility of producing useful evidence on the crucial privity factor—control of the Texas Litigation by Broadcom in a sufficient manner to bind Broadcom through principles of res judicata or estoppel. Notwithstanding that Ericsson argues that no other way exists to obtain the discovery because of the Protective Order, *see* Mot. 7-8 (citing Exs. 2011–2014), the Board cannot determine on this record, with more than conjecture, whether Ericsson otherwise would be able to obtain much of the sought-after discovery, because Ericsson has not shown beyond mere speculation that it exists. For example, Ericsson has not shown that communication about any defense agreements,

duty to defend agreements, agreements to intervene, invalidity positions, and claim interpretation, exist.

After weighing the factors surrounding the issue of privity as advanced by Ericsson, including the redacted information and arguments presented by Ericsson and Broadcom that remain under seal, the Board finds that Ericsson has not met its burden of demonstrating that additional discovery is in the interests of justice.

In consideration of the foregoing, it is hereby

ORDERED that Ericsson's motion for additional discovery is *denied*.

APPENDIX N — ORDER DENYING PETITION FOR *EN BANC* REHEARING OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, DATED AUGUST 7, 2018

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

2015-1944, 2015-1945, 2015-1946

WI-FI ONE, LLC,

Appellant,

v.

BROADCOM CORPORATION,

Appellee,

ANDREI IANCU, UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE,

Intervenor.

Appeals from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Nos. IPR2013-00601, IPR2013-00602, IPR2013-00636.

ON PETITION FOR PANEL REHEARING AND REHEARING *EN BANC*

Appendix N

Before Prost, *Chief Judge*, Newman, Lourie, Bryson*, Dyk, Moore, O'Malley, Reyna, Wallach, Taranto, Chen, Hughes, and Stoll, *Circuit Judges*.

Per Curiam.

ORDER

Appellant Wi-Fi One, LLC filed a combined petition for panel rehearing and rehearing *en banc* in each of the above three appeals. Responses to the petitions were invited by the court and filed by intervenor Andrei Iancu and appellee Broadcom Corporation. The petitions were referred to the panel that heard the appeal, and thereafter the petitions for rehearing *en banc* were referred to the circuit judges who are in regular active service.

Upon consideration thereof,

It is Ordered That:

The petitions for panel rehearing are denied.

The petitions for rehearing *en banc* are denied.

The mandate of the court will issue on August 14, 2018.

---

* Circuit Judge Bryson participated only in the decision on the petitions for panel rehearing.

Appendix N

FOR THE COURT

August 7, 2018
Date

/s/Peter R. Marksteiner
Peter R. Marksteiner
Clerk of Court