UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AT&T SERVICES, INC., AND NOKIA OF AMERICA CORP.,
Petitioner

v.

ADAPTIVE SPECTRUM AND SIGNAL ALIGNMENT, INC.,
Patent Owner

Case IPR2025-00395
U.S. Patent No. 7,428,669

PATENT OWNER'S DISCRETIONARY DENIAL BRIEF

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PATENT OWNER'S EXHIBIT LIST

Exhibit No.	Description
2001	Interim Processes for PTAB Workload Management Memorandum (March 26, 2025)
2002	First Amended Docket Control Order [131], *Adaptive Spectrum and Signal Alignment, Inc. v. AT&T Inc. et al.,* Case No. 2:24-cv-00029-JRG-RSP (E.D. Tex.) filed March 6, 2025
2003	Second Amended Docket Control Order [141], *Adaptive Spectrum and Signal Alignment, Inc. v. AT&T Inc. et al.,* Case No. 2:24-cv-00029-JRG-RSP (E.D. Tex.) filed March 28, 2025
2004	Order Accepting Joint Stipulation and Motion to Dismiss All Claims and Defenses [144], *Adaptive Spectrum and Signal Alignment, Inc. v. AT&T Inc. et al.,* Case No. 2:24-cv-00029-JRG-RSP (E.D. Tex.) filed April 14, 2025
2005	Complaint [1], *Adaptive Spectrum and Signal Alignment, Inc. v. AT&T Inc. et al.,* Case No. 2:24-cv-00029-JRG-RSP (E.D. Tex.) filed January 19, 2024
2006	Claim Construction Order [142], *Adaptive Spectrum and Signal Alignment, Inc. v. AT&T Inc. et al.,* Case No. 2:24-cv-00029-JRG-RSP (E.D. Tex.) filed April 1, 2025
2007	FAQs for Interim Processes for PTAB Workload Management, USPTO available at https://www.uspto.gov/patents/ptab/faqs/interim-processes-workload-management
2008	Order Granting Motion to Dismiss All Claims and Defenses Related to U.S. Patent No. 7,428,669 [119], *Adaptive Spectrum and Signal Alignment, Inc. v. AT&T Inc. et al.,* Case No. 2:24-cv-00029-JRG-RSP (E.D. Tex.) filed February 6, 2025
2009	Tau Beta Pi, *Marconi Prize*, at https://www.tbp.org/about/Dist/Marconi.cfm (last accessed May 10, 2025)

Exhibit No.	Description
2010	IEEE, *IEEE Alexander Graham Bell Medal* 3 (2025), at https://corporate-awards.ieee.org/wp-content/uploads/bell-rl.pdf (last accessed May 10, 2025)
2011	National Science & Technology Medals Foundation, *John Cioffi*, at https://nationalmedals.org/laureate/john-cioffi/ (last accessed May 10, 2025)

I. INTRODUCTION

Pursuant to Acting Director Stewart's March 26, 2025 Memorandum titled "Interim Processes for PTAB Workload Management" (the "PTAB Workload Management Memo", EX2001), Patent Owner Adaptive Spectrum and Signal Alignment, Inc. ("Patent Owner" or "ASSIA") respectfully requests that the Director exercise discretion and deny institution of the Petition for *inter partes* review of U.S. Patent No. 7,428,669 ("the '669 patent").

The Board should deny institution of the Petition under 35 U.S.C. § 314(a) for a multitude of reasons. First, the '669 patent was asserted in a co-pending litigation (*Adaptive Spectrum and Signal Alignment, Inc. v. AT&T Enterprises, LLC, AT&T Mobility LLC, AT&T Mobility II LLC, and AT&T Services, Inc.*, No. 2:24-cv-00029-JRG-RSP) that was scheduled to begin trial **more than 10 months before the projected FWD deadline here**. EX2002, 1 (setting trial for September 22, 2025); EX2003, 1; EX2004, 1; EX1017, 1. While the parties dismissed the '669 patent and just recently settled this litigation, the factors that would have otherwise resulted in the majority of the *Fintiv* factors strongly favoring denial should still strongly weigh in favor of denial in light of the considerations recently enumerated in the PTAB Workload Management Memo. Indeed, the parties' settlement means that there are now settled expectations between the parties that

Patent Owner will no longer assert infringement of the '669 patent against Petitioner.

Second, several other considerations enumerated in the PTAB Workload Management Memo also weigh in favor of denying institution of the Petition. For example, the length of time that the claims of the '669 patent have been in force, the extent of the Petition's reliance on expert testimony, compelling economic interests, and other considerations all strongly weigh in favor of discretionarily denying the Petition under § 314(a).

Finally, the merits of the Petition are weak as none of Petitioner's grounds presents compelling reasons as to why the claims of the '669 patent should be found unpatentable. For example, Petitioner fails to adequately explain why a person of ordinary skill in the art (POSITA) would have been motivated to modify either Cooper or Klayman to use Digital Subscriber Line (DSL) technology or to implement DSL modems as described in Li. Neither Cooper nor Klayman are directed to DSL technology or DSL modems, and neither mention "DSL" at all. Accordingly, Petitioner's rationale is fraught with hindsight bias and improperly uses the '669 patent as a roadmap to assemble the combination. The Board should reject such theories as identically applied in both Grounds.[1]

[1] In accordance with the Board's April 25, 2025 guidance, Patent Owner does

Each of these reasons illustrates that instituting review would be wasteful of the Board's, and the parties' resources. As such, the Director should exercise discretion to deny institution of the Petition.

II. THE PETITION SHOULD BE DENIED UNDER 35 U.S.C. § 314(A)

On March 26, 2025, Acting Director Stewart issued a Memorandum titled "Interim Processes for PTAB Workload Management" (the "PTAB Workload Management Memo", EX2001). The PTAB Workload Management Memo enumerated a number of "relevant considerations" for the parties to address when arguing for or against discretionary denial. These factors include:

- Whether the PTAB or another forum has already adjudicated the validity or patentability of the challenged patent claims;
- Whether there have been changes in the law or new judicial precedent issued since issuance of the claims that may affect patentability;
- The strength of the unpatentability challenge;
- The extent of the petition's reliance on expert testimony;

"not repeat [its] merits arguments verbatim," and instead "briefly explain[s] why the merits are relevant [herein]." EX2007, FAQs for Interim Processes for PTAB Workload Management, FAQ 12. As additionally set forth in the Board's April 25, 2025 guidance, Patent Owner also requests that the Director "consider the merits in the [forthcoming] merits briefing" as part of the discretionary denial analysis. *Id*.

- Settled expectations of the parties, such as the length of time the claims have been in force;
- Compelling economic, public health, or national security interests; and
- Any other considerations bearing on the Director's discretion.

EX2001, 2-3.

As explained more fully below, several of these considerations—including the settled expectations of the parties, the extent of the Petition's reliance on expert testimony, certain compelling economic interests, and other considerations support discretionary denial under 35 U.S.C. § 314(a). In fact, the Petition represents a prime example of when discretionary denial should be used to meet the goals articulated in the PTAB Workload Management Memo: to "improve PTAB efficiency, maintain PTAB capacity to conduct AIA proceedings, . . . and promote consistent application of discretionary considerations in the institution of AIA proceedings." EX2001, 3.

A. Settled expectations of the parties

There are several developments that have transpired, both during and outside of litigation, that have led to the parties having settled expectations for the '669 patent. As articulated in the PTAB Workload Management Memo, these settled expectations weigh in favor of the Director exercising discretion to deny the Petition.

1. Settled expectation that Patent Owner will no longer assert infringement of the '669 patent against Petitioner

The '669 patent was previously asserted in a co-pending litigation (*Adaptive Spectrum and Signal Alignment, Inc. v. AT&T Enterprises, LLC, AT&T Mobility LLC, AT&T Mobility II LLC, and AT&T Services, Inc.*, No. 2:24-cv-00029-JRG-RSP) that was scheduled to begin trial **more than 10 months before the projected FWD deadline here**. EX2003, 1 (setting trial for September 22, 2025); EX1017, 1. While the parties dismissed the '669 patent and just recently settled this litigation, the factors that would have otherwise resulted in the majority of the *Fintiv* factors strongly favoring denial should still strongly weigh in favor of denial in light of the considerations recently enumerated in the PTAB Workload Management Memo. EX2001, 2-3.

Indeed, the parties' dismissal of the '669 patent and settlement means that there are now settled expectations between the parties that Patent Owner will no longer assert infringement of the '669 patent against Petitioner. *See* Pet., 70 (stating that Patent Owner's infringement positions were "largely accusing Nokia products"); EX2008.[2]

[2] Despite the parties' settlement of the co-pending litigation, and the settled expectations of what the settlement entails, Petitioner has refused Patent Owner's requests to move for termination of this proceeding. Petitioner's refusal evidences

Thus, the well-settled expectation that Patent Owner will no longer assert infringement of the '669 patent against Petitioner warrants discretionary denial of the Petition. Indeed, denial of the Petition will help "improve PTAB efficiency, maintain PTAB capacity to conduct AIA proceedings, . . . and promote consistent application of discretionary considerations in the institution of AIA proceedings." EX2001, 3.

2. Length of time the claims were in force, and Petitioner's prolonged and unexplained delay

A further relevant consideration identified in the PTAB Workload Management Memo was "[s]ettled expectations of the parties, such as the length of time the claims have been in force." EX2001, 2. Here, the claims of the '669 patent have been in force for over 16 and a half years. EX1001, (45). Petitioner was also provided with actual notice of the '669 patent and Patent Owner's infringement allegations relating thereto over a year and half ago. EX2005, ASSIA-AT&T Complaint, ¶¶42, 59-66. Despite this notice, Petitioner **waited nearly a year** after the filing of the district court complaint in the previously co-pending litigation, and **over eight months** after infringement contentions were served in the previously co-pending litigation. Petitioner make no mention of this delay in its Petition.

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its disregard for the Board's resources that would be required to continue this proceeding despite the underlying dispute being resolved.

Waiting nearly a year from the filing of the district court complaint to challenge a reasonable number of claims—16 total claims—is not diligent. Petitioner does not provide any explanation for its delay in filing the Petition.

Under these circumstances, the Petitioner's delay in filing this IPR is a further factor that favors discretionary denial. *Cf. Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11, 11 (P.T.A.B. Mar. 20, 2020) ("If the evidence shows that the petitioner filed the petition expeditiously, such as promptly after becoming aware of the claims being asserted, this fact has weighed against exercising the authority to deny institution under *NHK*."); *Hulu, LLC v. Piranha Media Distribution, LLC*, IPR2024-01252, Paper 27, 3 (P.T.A.B. Apr. 17, 2025) (even when "the *Fintiv* framework does not fit neatly with the circumstances of [the] case, . . . the *Fintiv* framework emphasizes efficiency concerns, and *Fintiv* encourages the parties to explain the impact of other facts and circumstances that exist in their proceeding on efficiency and integrity of the patent system").

B. Extent of the Petition's reliance on expert testimony

Another basis for discretionary denial is that Petitioner's expert declaration largely parrots the Petition without providing any additional compelling analysis or corroborating evidence, and thus does nothing to overcome the weak merits of the Petition. *Xerox Corp. et al.* v. *Bytemark*, IPR2022-00624, Paper 9, 15 (P.T.A.B. Aug. 24, 2024) (precedential) (according "little weight" to declaration testimony

that contains a verbatim restatement of a petition's conclusory assertions without additional supporting evidence or reasoning); *Facebook, Inc. v. Windy City Innovations, LLC*, 973 F.3d 1321, 1340–41 (Fed. Cir. 2020) (affirming Board decision giving no weight to expert testimony that "merely repeated Petitioner's argument, nearly verbatim, without citation to the basis for his testimony"); *see* Section III *infra*. This practice raises concerns under 37 C.F.R. § 42.65(a). *See* 37 C.F.R. § 42.65(a) ("Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.").

In the few instances where the expert declaration does provide additional argument beyond the Petition, such arguments are conclusory, and again provide little to no compelling technical explanation or evidence to support the conclusions. *SFC Co., Ltd. v. LG Chem, Ltd.*, IPR2020-00178, Paper 16, 37-39 (P.T.A.B. May 29, 2020); *TRW Automotive US LLC v. Magna Elecs. Inc.*, IPR2014-00258, Paper 16, 19-23 (P.T.A.B. June 26, 2014) (rejecting obviousness analysis that failed to support rationale with supporting evidence and technical reasoning).

This is clear with Petitioner's attempt to provide a motivation to combine either Cooper or Klayman with Li. Pet., 11-13, 39-41; EX1002, ¶¶180-185, 248-255. As further explained in Section III, Petitioner and Petitioner's expert demonstrate improper hindsight bias by arguing that Cooper's and Klayman's

mere mention of a "twisted pair copper wire" means that a DSL system is employed. EX1002, ¶¶182, 250-251. But neither Cooper nor Klayman mention "DSL" or "DSL modems" at all. Rather, both Petitioner and Petitioner's expert have erroneously used the '669 patent as a roadmap to make the leap to DSL. Petitioner's expert provides no additional explanation for this "twisted pair" theory, which is the crux of Petitioner's motivation to combine arguments. Such conclusory statements fail to explain why a POSITA would have been motivated to modify Cooper or Klayman and demonstrate that the testimony is entitled little to no weight.

Because such rationale is fraught with hindsight bias and improperly uses the '669 patent as a roadmap to assemble the combination, the Board should reject such theories as identically applied in both Grounds. As such, Petitioner's improper use of expert testimony further supports discretionary denial under 35 U.S.C. § 314(a).

C. Compelling economic interests

There are certain compelling economic interests that further weigh in favor of the Director exercising discretion to deny the Petition. For example, the district court, Patent Owner, and Petitioner already made significant economic investment in the previously co-pending litigation before it was settled just four weeks ago. Specifically, the district court already conducted a Claim Construction Hearing on

March 19, 2025 and issued a Claim Construction Order on April 1, 2025, the parties already exchanged invalidity and infringement contentions, and were merely days away from the completion of fact discovery on May 13, 2025 before reaching a settlement. EX2002, 4; EX2003, 4; EX2006.

Additionally, the parties expended significant economic investment in their ultimately successful efforts to reach a settlement agreement. These investments, and the fact that the parties were able to resolve their dispute prior to the institution deadline for this proceeding should not be diminished, nor should such efforts to reach a settlement be deterred.

Therefore, the significant investments by the parties and the district court to-date represent compelling economic interests that weigh in favor of discretionarily denying the Petition.

D. Other considerations bearing on the Director's discretion

There is yet another consideration that weighs in favor of the Director exercising discretion to deny institution of the Petition: the fact that the ’669 patent reflects true innovation in the DSL space by a United States inventor recognized with a National Medal of Technology and Innovation and heralded as the “father of DSL.” *See* EX2009, 2010, 2011.

The inventor of the ’669 patent, Dr. John M. Cioffi, who is often referred to as the “father of DSL,” is renowned for his transformative contributions to

telecommunications, having received numerous prestigious accolades, including the Marconi Prize,[3] the IEEE Alexander Graham Bell Medal,[4] and most recently was awarded the National Medal of Technology and Innovation by the President, recognizing his enduring impact on communications technology.[5] Dr. Cioffi initially served as a member of the technical staff at Bell Labs and then worked at IBM Research. He then ventured to Stanford University, where he served as a professor for decades, playing a significant role in pioneering advancements in

[3] Tau Beta Pi, *Marconi Prize*, at https://www.tbp.org/about/Dist/Marconi.cfm (last accessed May 10, 2025) (EX2009).

[4] IEEE, *IEEE Alexander Graham Bell Medal* (2025), at https://corporate-awards.ieee.org/wp-content/uploads/bell-rl.pdf (last accessed May 10, 2025) ("For pioneering discrete multitone modem technology as the foundation of the global DSL industry.") (EX2010).

[5] National Science & Technology Medals Foundation, *John Cioffi*, at https://nationalmedals.org/laureate/john-cioffi/ (last accessed May 10, 2025) ("For advancements that helped bring high-speed Internet to the world. The digital subscriber line that he helped invent ignited the growth of the digital age, vastly increasing people's access to information, reshaping the global economy, and transforming how we work, communicate, and find community.") (EX2011).

telecommunications and broadband technology beginning in the late 1980s. In 2003, he founded Adaptive Spectrum and Signal Alignment, Inc., the assignee of the '669 patent, to continue developing and commercializing innovative communications technologies. Those innovations now enhance internet connectivity for over 120 million households worldwide. In short, Dr. Cioffi is a recognized visionary who often looked in directions that others either scoffed at or were not even thinking about to achieve breakthroughs in communications technologies.

Such is the case with the innovations claimed in the '669 patent. For example, use and adjustment of a Codeword Composition Ratio (CCR) to enhance adaptive Forward Error Correction (FEC) in DSL modems—the focus of independent claims 1 and 14—provided enhanced DSL performance. Namely, the innovations allowed for "adjustments to the transmission error rate of a communications system using data codewords, without affecting the latency of data transmission." EX1001, 5:47-50. "This transmission error rate adjustment is accomplished using changes to a codeword composition ratio [CCR]." EX1001, 5:50-55. The '669 patent explains that "the composition of codewords used in FEC/interleaving is adjusted to meet the target BER [bit error rate], while leaving the latency unaffected (or possibly reduced)." EX1001, 5:55-62. Such innovations in DSL technology and DSL modems allowed for adaptive adjustments, improving

the performance of DSL systems.

As such, these innovations highlight the novelty of the inventions recited in the '669 patent, and serve as additional reasoning for why the Director should exercise discretion to deny institution of the Petition under § 314(a).

III. PETITIONER FAILS TO EXPLAIN WHY A POSITA WOULD HAVE BEEN MOTIVATED TO COMBINE COOPER OR KLAYMAN WITH LI, RENDERING BOTH GROUNDS DEFICIENT

The Director should discretionarily deny the Petition for each of the reasons discussed above, and for the additional reason that the merits of the Petition are weak.[6] Indeed, both Grounds 1 and 2 are deficient because Petitioner has failed to establish why a POSITA would have been motivated to modify Cooper or Klayman to implement the DSL modems described in Li. Indeed, neither Cooper nor Klayman are directed to—or even mention—DSL technology at all.

While this basis for denial of institution is discussed briefly below, the full scope of these arguments and other deficiencies are included and explained in Patent Owner's forthcoming merits brief. In accordance with the Board's April 25,

[6] In accordance with the Board's April 25, 2025 guidance, Patent Owner does "not repeat [its] merits arguments verbatim," and instead "briefly explain[s] why the merits are relevant [herein]." EX2007, FAQs for Interim Processes for PTAB Workload Management, FAQ 12.

2025 guidance, Patent Owner also requests that the Director "consider the merits in the [forthcoming] merits briefing" as part of the discretionary denial analysis. EX2007, FAQs for Interim Processes for PTAB Workload Management, FAQ 12.

A. Petitioner fails to demonstrate why a POSITA would have been motivated to modify Cooper to implement DSL modems

At the outset, Cooper does not mention "DSL" or "modems" at all. Given this silence, it is no wonder that Petitioner's theories for modifying Cooper to implement Li's alleged DSL modem teachings are confused and flawed. Specifically, Petitioner fails to establish why a POSITA viewing Cooper would have been motivated to modify Cooper's operations to incorporate DSL modem technology. This fatal flaw demonstrates that Ground 1 is deficient.

Petitioner's primary argument is that "Cooper discloses twisted pair copper wires." Pet., 11. Based solely on this observation, Petitioner asserts that a POSITA would have modified Cooper to incorporate Li's DSL modem technology. *Id.* First, this observation alone is not sufficient to establish that a POSITA would have been motivated to modify Cooper to incorporate Li. "It does not suffice to meet the motivation to combine requirement to recognize that two alternative arrangements . . . were both known in the art." *Virtek Vision Int'l ULC v. Assembly Guidance Sys., Inc.*, 97 F.4th 882, 886-87 (Fed. Cir. 2024). Simply noting that Cooper uses twisted pair lines does not provide a sufficient motivation to modify Cooper to implement DSL technology. As the Federal Circuit has consistently

explained, "obviousness concerns whether a skilled artisan not only could have made but ***would have been motivated to make*** the combinations or modifications of prior art to arrive at the claimed invention." *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015) (emphasis added). Here, the mere observation that Cooper mentions twisted pair copper wires does not provide a motivation to modify Cooper's functionality.

Second, to underscore Petitioner's failure to establish a motivation to combine Cooper and Li, even Cooper explains that using a twisted pair copper wire is not the preferred way of implementing its process. EX1006, 4:9-11. Rather, Cooper affirmatively states: "In the preferred embodiment, the communication medium 115 is hybrid optical fiber and coaxial cable." *Id.*; *see also id.*, 1:28-36, 4:43-47. Thus, Cooper does not suggest implementing DSL technology or using a DSL modem.

Petitioner additionally argues that a "POSITA would have recognized [the] benefits of using DSL modems that are compliant with current ADSL standards." Pet., 12. But this argument again reflects Petitioner's improper use of hindsight bias to construct the Cooper-Li combination. Nothing in Cooper suggests implementing its process in any DSL technology or the need to modify its process to be compliant with an ADSL standard. Rather, Petitioner has clearly used the '669 patent and its novel DSL innovations as a roadmap to argue that a POSITA

would have been motivated to modify Cooper to use DSL technology. This is improper hindsight and must be rejected. "Defining the problem in terms of its solution reveals improper hindsight in the selection of the prior art relevant to obviousness." *Insite Vision Inc. v. Sandoz, Inc.*, 783 F.3d 853, 859 (Fed. Cir. 2015); *see also ActiveVideo Networks, Inc. v. Verizon Comm's, Inc.*, 694 F.3d 1312, 1327 (Fed. Cir. 2012).

In summary, none of Petitioner's proffered reasons for combining Cooper and Li are persuasive. Outside of improper hindsight bias, Petitioner has not explained why a POSITA would have been motivated to modify Cooper to implement DSL technology or Li's DSL modems. Because Petitioner has failed to sufficiently establish a motivation to combine Cooper and Li, Ground 1 is deficient and should be rejected.

B. Petitioner fails to demonstrate why a POSITA would have been motivated to modify Klayman to implement DSL modems

Petitioner's rationale for combining Klayman with Li is identical to the rationale presented for combining Cooper with Li. *Compare* Pet., 39-41, *with* Pet., 11-13. It is also deficient for the same reasons.

Namely, Klayman does not mention "DSL" or "modems" at all. Rather, Petitioner again argues that "Klayman discloses twisted pair wires" and again uses this statement as the basis for why a POSITA would have modified Klayman to incorporate Li's DSL modem technology. Pet., 39. Such theories are fraught with

hindsight bias and improperly use the '669 patent as a roadmap to assemble the combination. For the same reasons presented with reference to Cooper, Ground 2 is also deficient and should be rejected. *See* Section III.A.

IV. CONCLUSION

Each of the issues discussed above independently supports discretionary denial. Considered together, they present a compelling case for the Director to exercise discretion and deny institution of this untimely and inefficient Petition in accordance with § 314(a). Accordingly, Patent Owner respectfully requests that the Director discretionarily deny institution of the Petition.

Respectfully submitted,

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CERTIFICATE OF WORD COUNT (37 C.F.R. § 42.24(d))

1. This Patent Owner's Discretionary Denial Brief complies with the type-volume limitation of 14,000 words, comprising 3,530 words, excluding the parts exempted by 37 C.F.R. § 42.24(a)(1).

2. This Patent Owner Preliminary Response complies with the general format requirements of 37 C.F.R. § 42.6(a) and has been prepared using Microsoft® Word 2016 in 14-point Times New Roman font.

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CERTIFICATE OF SERVICE (37 C.F.R. § 42.6(e))

I certify that the above-captioned **PATENT OWNER'S DISCRETIONARY DENIAL BRIEF** and associated Exhibits 2001-2011 were served in their entireties on May 12, 2025, upon the following parties via electronic mail:

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