

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NOKIA OF AMERICA CORP.
Petitioner

v.

ADAPTIVE SPECTRUM AND SIGNAL ALIGNMENT, INC.
Patent Owner

Case IPR2025-00428
Patent No. 7,991,122

PATENT OWNER'S DISCRETIONARY DENIAL BRIEF

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PATENT OWNER'S EXHIBIT LIST

Exhibit No.	Description
2001	Patent Trial and Appeal Board “Interim Processes for PTAB Workload Management,” issued March 26, 2025
2002	First Amended Docket Control [40], <i>Adaptive Spectrum and Signal Alignment, Inc. v. Charter Communications, Inc. et al.</i> , Case No. 2:24-cv-00124 (E.D. Tex.) filed October 4, 2024
2003	Frequently Asked Questions, USPTO.com, accessed on May 5, 2025 at: https://www.uspto.gov/patents/ptab/faqs/interim-processes-workload-management?utm_campaign=subscriptioncenter&utm_content=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term=
2004	Plaintiff Adaptive Spectrum and Signal Alignment, Inc.’s Complaint for Patent Infringement [1], <i>Adaptive Spectrum and Signal Alignment, Inc. v. Charter Communications, Inc. et al.</i> , Case No. 2:24-cv-00124 (E.D. Tex.) filed January 19, 2024
2005	Second Amended Docket Control [140], <i>Adaptive Spectrum and Signal Alignment, Inc. v. Charter Communications, Inc. et al.</i> , Case No. 2:24-cv-00124 (E.D. Tex.) filed March 28, 2025
2006	U.S. Patent App. No. 2007/0019681A1 to Wang, published January 25, 2007
2007	John Cioffi – National Science and Technology Medals Foundation, Nationalmedals.com, accessed May 5, 2025 at https://nationalmedals.org/laureate/john-cioffi/
2008	Order Accepting Joint Stipulation and Motion to Dismiss All Claims and Defenses [144], <i>Adaptive Spectrum and Signal Alignment, Inc. v. AT&T Inc. et al.</i> , Case No. 2:24-cv-00029-JRG-RSP (E.D. Tex.) filed April 14, 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 7,991,122 (“the ’122 patent”) under 35 U.S.C. § 325(d) and/or 35 U.S.C. § 314(a).

The Petition relies extensively on prior art and arguments that were previously before the Office and should be denied under 35 U.S.C § 325(d). Each of Petitioner’s grounds relies on a primary reference (Tsatsanis) that was cited during prosecution of the ’122 patent. EX1001, (56). Nonetheless, Petitioner seems confused about this fact, as Petitioner incorrectly alleges that “Tsatsanis was not cited and was not considered during prosecution.” Pet., 11. Additionally, both Tsatsanis (Ground 1A) and Tsatsanis in view of Savor (Ground 1B) are cumulative of a prior art combination that was thoroughly examined and found to be deficient during prosecution. Petitioner does not address these substantial similarities, let alone address any of the art specifically-applied or addressed by the Examiner during prosecution. Finally, Petitioner fails to demonstrate that the Office made material errors in the original prosecution, addressing this issue in two

conclusory statements. As such, Grounds 1A, 1B, and 2 are fatally flawed for relying on art already considered, relying on art that is improperly cumulative, and/or failing to explain a material error made by the examiner during prosecution. The Petition should therefore be denied under 35 U.S.C § 325(d).

The Petition should also be denied under 35 U.S.C § 314(a). Until about three weeks ago, the '122 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 11 months before the projected FWD deadline here**. EX2002, 1 (setting trial for September 22, 2025); EX2005, 1; EX2008, 1; EX1009, 1 While AT&T and Patent Owner 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. EX2008, 1.

In particular, several PTAB Workload Management Memo considerations support Petition denial. For example, the length of time that the claims of the '122 patent have been in force, the extent of the Petition's reliance on expert testimony, and certain compelling economic interests 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 demonstrating that the '122 patent should be found unpatentable. For example, Tsatsanis, both by itself (Ground 1A) and in combination with Savor (Ground 1B), fails to disclose or render obvious at least the claimed: (i) “*evaluating data received by the new DSL line set; and evaluating data received by the already-operating DSL line set;*” and (ii) “*sending control signals, via a control signal generator coupled to the analysis unit, to the new DSL line set and to the already-operating DSL line set.*”^{1,2}

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.

¹ For ease of reference, Patent Owner will identify claim language from the '122 patent using *italics*, and will identify language quoted from other exhibits using regular font.

² 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].” EX2003, 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 her discretionary denial analysis. *Id.*

II. The '122 Patent Technology

Nearly twenty years ago, the '122 patent inventors, led by Dr. John M. Cioffi, who is often referred to as the “father of DSL” and a National Medal of Technology and Innovation Awardee for helping to invent digital subscriber line technology³, conceived of the innovations embodied by the '122 patent claims. These innovations improved broadband communications through, for example, “the non-disruptive introduction of a new DSL line into the operation of a vectored and/or non-vectored DSL system.” EX1001, 3:66-4:2. Such innovations were important to the drastic expansion of digital subscriber line (DSL) technologies, which was still in its infancy at the time of invention.

A. Background that led to the '122 patent

Around the priority date of the '122 patent, the use of digital subscriber line (DSL) technologies was drastically expanding. *See* EX1001, 1:34-61. As DSL

³ National Science & Technology Medals Foundation, John Cioffi, at <https://nationalmedals.org/laureat/john-cioffi/%20> (last accessed Jan. 21, 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.”) (EX2007).

technologies accrued an increased presence in the communications industry, a number of providers sought to utilize the large bandwidth capabilities of DSL systems for digital communications over existing telephone subscriber lines, such as loops and/or copper plants. *Id.*, 1:34-37. However, as an increasing number of new telephone subscriber lines were configured for DSL, the amount of crosstalk existing between these new DSL lines and already-operating DSL lines debilitated the operational performance of DSL line sets as a whole. *See id.*, 1:47-54.

The increasing level of crosstalk among DSL line sets stemmed from the inability to appropriately provision and train new DSL line sets within existing DSL line set binders. *Id.* As new twisted pairs were activated for DSL operation, already-operating DSL lines encountered substantial crosstalk, which negatively impacted their operation. *Id.* For example, in vectored DSL systems, the activation of new DSL lines can “interfere with the vectored system operation which, prior to new line activation, has been configured to operate in a certain way” and “re-configuration may thus be needed to avoid disrupting strong crosstalk.” *Id.*, 1:51-54. Re-configuration is a complicated and time-consuming process, and traditional DSL technology could not adequately accommodate the increasing presence of DSL lines within the infrastructure of existing DSL deployment setups. *See id.*, 5:52-61. Moreover, many traditional DSL provisioning techniques did not

contemplate using the “capabilities of current, pending and anticipated DSL standards.” *See id.*, 2:3-5.

As a result, the inevitable and substantial crosstalk generated by newly provisioned DSL lines among already-operating DSL lines caused considerable disruption and performance issues of DSL technologies. *See id.*, 1:47-54. Given the emergence of new DSL standards at the time of the ’122 patent’s priority date, crosstalk and noise among DSL lines required unique and distinct solutions for particular DSL implementations. *See, e.g., id.*, 5:15-36. These limitations and gaps in DSL line set provisioning capabilities disrupted communication systems as a whole. *See id.*, 5:33-37.

B. Innovations of the ’122 patent

The ’122 patent discloses multiple innovations related to provisioning and training new DSL line sets to already-operating DSL line sets. *Id.*, 3:58-56. In particular, the claims of the ’122 patent are directed to a method (claims 1-13), a controller (claims 14-19), and a computer program product (claim 20) that facilitate “the non-disruptive introduction of a new DSL line into the operation of a vectored and/or non-vectored DSL system.” *Id.*, 3:66-4:2.

The systems and methods disclosed in the ’122 patent address and solve the limitations of prior DSL provisioning methodologies by implementing a “DSL Optimizer” and “DSL control unit” capable of adding new DSL line sets to an

already-operating DSL line set while simultaneously minimizing the negative effects of crosstalk. *Id.*, 12:60-13:5. Specifically, the '122 patent discloses “a DSL control unit . . . [that] can be part of a controller (for example, in or as a DSL optimizer, dynamic spectrum manager or spectrum management center).” *Id.* The '122 patent discloses a unique architecture that advantageously allows the DSL line set provisioning and training components to be located anywhere while cancelling the negative effects of crosstalk. *Id.*, 4:13-19. The unique and innovative elements of the '122 patent, such as the DSL Optimizer and Control Unit are illustrated in Figure 3A (reproduced below).

components and/or lines with which the present invention is practical.” *Id.*, 4:4-7.

For example, the ’122 patent contemplates implementing the DSL Optimizer and Control Unit among a “model system according to the G.997.1 standard (G.ploam), which applies to various ADSL and VDSL systems.” *Id.*, 5:1-3. Notably, this implementation works well with both established and emerging DSL systems, such as ADSL and VDSL, and satisfies “various [physical layer management] standards that may or may not include splitters, such as ADSL1 (G.992.1), ADSL-Lite (G.992.2), ADSL2 (G.992.3), ADSL2-Lite (G.992.4), ADSL2+(G.992.5), VDSL1 (G.993.1) and other G.993.x emerging VDSL standards, as well as the G.991.1 and G.991.2 SHDSL.” *Id.*, 5:6-11.

The above configuration of the ’122 patent also facilitates the integration of future standardized systems, such as VDSL2, into a vectored DSLAM or other vectored or non-vectored DSL system, without a new user disrupting service to other users in the same or a nearby binder. *Id.*, 1:65-2:2. Specifically, the DSL Optimizer and Control Unit of the ’122 patent are advantageously configured to “use the existing transmit power, CARMASK and/or PSDMASK capabilities of current, pending and anticipated DSL standards including VDSL2 (or G.997.1 as modified for VDSL2) to reduce both downstream and upstream training-signal levels.” *Id.*, 2:2-5.

Thus, the solutions described by the '122 patent transcend traditional DSL provisioning and training technologies by, among other things, configuring new DSL lines in a manner that facilitates non-disruptive levels of crosstalk for a variety of DSL deployment scenarios. *See id.*, 11:61-12:9. Moreover, the '122 patent improved the effectiveness of digital communications systems as a whole by enumerating a means of introducing non-disruptive crosstalk in DSL lines without being localized to a particular DSL system or standard. *See id.*, 2:2-5.

III. The Petition Should Be Denied Under 35 U.S.C. 325(d)

The Board has discretion to deny review where “the same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d). Under Section 325(d), the Board uses a two-part framework:

- (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and
- (2) if either condition of first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GMBH, IPR2019-01469, Paper 6, 8 (P.T.A.B. Feb. 13, 2020) (precedential March 24, 2020). The Board explained that the policy undergirding “this framework reflects a

commitment to defer to previous Office evaluations of the evidence of record unless material error is shown.” *Id.*, 9.

The Board will consider the *Becton, Dickinson* factors when applying the framework. *Id.* Those factors include:

- (a) the similarities and material differences between the asserted art and the prior art involved during examination;
- (b) the cumulative nature of the asserted art and the prior art evaluated during examination;
- (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;
- (d) the extent of the overlap between the arguments made during examination and the manner in which a Petitioner relies on the prior art or a Patent Owner distinguishes the prior art;
- (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and
- (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

Becton, Dickinson & Co. v. B. Braun Melsungen AG, IPR2017-01586, Paper 8, 17-18 (P.T.A.B. Dec. 15, 2017) (informative).

The facts here support denial under 35 U.S.C. § 325(d) at least because: (i) all of Petitioner’s grounds are based on a primary reference (Tsatsanis) that was cited during prosecution; (ii) both Tsatsanis (Ground 1A) and Tsatsanis in view of

Savor (Ground 1B) are cumulative of a ground that was thoroughly examined and found to be deficient during prosecution; and (iii) Petitioner has not sufficiently identified any material error made by the Office during prosecution.

A. The first prong of the *Advanced Bionics* framework is met

Factors (a), (b), and (d) pertain to the first prong of the framework.

Advanced Bionics, Paper 6 at 10. An analysis of these three factors shows that the primary reference relied upon by Petitioner for all three grounds, Tsatsanis, was cited and considered by the Examiner during prosecution of the '122 patent.

EX1001, (56); EX1004, 134 (Jun. 6, 2007 IDS citing Tsatsanis), 377 (indicating that Tsatsanis was considered by the Examiner on Nov. 4, 2010).

Petitioner inconsistently, and confusingly characterizes the Examiner's prior consideration of Tsatsanis. On different occasions in the Petition, Petitioner fluctuates between stating that "Tsatsanis was not cited and was not considered during prosecution," and stating that "Tsatsanis (one of the two references at issue in Ground 1) appears on the face of the '122 Patent." *Compare* Pet., 11 *with* Pet., 66. Nonetheless, Petitioner alleges that because "Tsatsanis was never applied in any rejection," Tsatsanis cannot be used to satisfy the first prong of *Advanced Bionics*. Pet., 66-67. This is incorrect. The precedential *Advanced Bionics* decision recognizes that "[p]reviously presented art includes ... art provided to the Office by an applicant, such as on an [IDS]." *Advanced Bionics*, Paper 6 at 7-8; *see also*

Google LLC v. Valtrus Innovations Ltd., IPR2022-01197, Paper 18 at 15–16

(PTAB June 13, 2023) (“Our precedent holds that providing a document to the Office in an Information Disclosure Statement is sufficient to satisfy prong one of the *Advanced Bionics* ...”); *Palo Alto Networks, Inc. v. Centripetal Networks, Inc.*, IPR2021-01155, Paper 12 at 14 (PTAB Jan. 20, 2022) (finding that a reference that the “Examiner acknowledged having considered . . . by signing the IDS” was “beyond dispute” before the Office during prosecution).

In addition to Tsatsanis being previously before the Office, both Tsatsanis (Ground 1A) and Tsatsanis in view of Savoor (Ground 1B) are cumulative of a ground that was thoroughly examined and found to be deficient during prosecution of the ’122 patent.

Indeed, the Examiner reviewed and considered the Tsatsanis reference on November 4, 2010. EX1004, 377. A mere 11 days later, on November 15, 2010, the Examiner issued an office action rejecting certain claims based on U.S. Patent Application Publication No. 2007/0019681 to Wang (“Wang”), and identifying seven additional references made of record as being “pertinent to applicant’s disclosure.” EX1004, 393-396. Notably, despite Tsatsanis being fresh in the Examiner’s mind at the time, the Examiner did not find Tsatsanis to be as pertinent to the claims of the application that became the ’122 patent as the eight references identified in the office action.

A review of these references reveals that this was not a surprising conclusion. Not only is Tsatsanis not as pertinent to the claims of the '122 patent as Wang was found to be, the relevant disclosure that Tsatsanis does have is cumulative of the teachings of Wang. This is illustrated in the following chart, which compares how the Examiner applied Wang during prosecution with how Petitioner applies Tsatsanis against independent claim 1 in the Petition.

Prosecution of the '122 Patent vs. Ground 1A		
Independent Claim 1 of the '122 Patent	Prosecution of the '122 Patent	Ground 1A
1[pre] - A method of adding a new DSL line set to an already-operating DSL line set, the method comprising:	“[O]n a given cable bundle, . . . non-overlapped loop communications 80(1)-80(M) already exist. . . . At this point, new loop communication 86 is to be initiated.” EX2006, Wang, ¶[0053]; EX1004, 393-396 (citing Wang for this feature).	“At a step 904, it is contemplated that the one or more other channels associated with a communication device are provisioned and active, or are capable of being engaged in active communication. At a step 908, the operation initiates provisioning and activation, such as with a training process, of a new

		channel N+1.” EX1006, ¶[0081]; Pet., 25-26.
1[a] - collecting operational data, via a data collection unit, from the new DSL line set and the already-operating DSL line set;	<p>“[T]he NEXT crosstalk noise from other users in the extra bandwidth region is monitored continuously by the modem that was originally allocated use of the extra bandwidth. When substantial changes in the NEXT noise are experienced, the extra bandwidth has to be given up. The NEXT noise for the k-th subcarrier can be estimated as:</p> $\sigma^2 = \frac{1}{L} \sum_{i=0}^{L-1} \ D'_k - D_k\ ^2 \quad ,$ <p>EX2006, ¶[0109]; EX1004, 393-396 (citing Wang for similar features).</p>	“One proposed solution to this problem is to have the CPEs calculate the appropriate channel parameters from the received signals and communicate those parameters to the transmitter.” EX1006, ¶[0082]; Pet., 28-31.
1[b] - performing, via an analysis unit coupled to the	“Finally . . . minimization of the NEXT noise is made by choosing the position index i having the minimum value of G(i).	“At the CO, the crosstalk may optionally be further processed or utilized as received to configure a precoder type processing

<p>collection unit, the following operations:</p> <p>analyzing the collected operational data;</p> <p>determining an operational configuration for at least one DSL line in the new DSL line set that will allow the new DSL line set to join the already-operating DSL line set without disrupting the already-operating DSL line set;</p>	<p>The corresponding k1(i) and k2(i) values represent the starting and ending subcarriers for the required bandwidth (within the total available bandwidth) at the determined position having minimum NEXT noise.”</p> <p>EX2006, ¶[0083]; EX1004, 393-396 (citing Wang for similar features).</p>	<p>module that performs processing on a signal prior to transmission through the channel(s).”</p> <p>EX1006, ¶[0083].</p> <p>“Because access to all the signals is available at the CO location, MIMO precoding may occur at that location. Thus, . . . coarse adjustments are made to the precoding MIMO processing unit or module.” EX1006, ¶[0084]; Pet., 32-34.</p>
<p>1[c] - evaluating data received by the new DSL line set; and</p> <p>evaluating data received by the already-operating DSL line set; and</p>	<p>“Finally . . . minimization of the NEXT noise is made by choosing the position index i having the minimum value of G(i). The corresponding k1(i) and k2(i) values represent the starting and ending subcarriers for the required bandwidth (within the total</p>	<p>“At the CO, the crosstalk may optionally be further processed or utilized as received to configure a precoder type processing module that performs processing on a signal prior to transmission through the channel(s).”</p>

	<p>available bandwidth) at the determined position having minimum NEXT noise.”</p> <p>EX2006, ¶[0083]; EX1004, 393-396 (citing Wang for similar features).</p>	<p>EX1006, ¶[0083]; Pet., 36-37.</p>
<p>1[d] - sending control signals, via a control signal generator coupled to the analysis unit, to the new DSL line set and to the already-operating DSL line set, further wherein the control signals comprise signals controlling operation of at least one of the following:</p> <p>the new DSL line set; or</p> <p>the already-operating DSL line set; and</p>	<p>“[A] set of filter banks can be used. The signal to be transmitted can be switched to the appropriate filter in the filter bank by some programmable switching operations. . . . By switching between the filters, the signal can be appropriately filtered in accordance with the requirements of the chosen adaptive duplexing ratio.”</p> <p>EX2006, ¶[0106]; EX1004, 393-396 (citing Wang for similar features).</p>	<p>“[T]he filters are trained in one or more stages, using signals having power levels that are matched to the degree or proficiency of filter training. It is contemplated that by matching the training signal's power level to filter training progress, the filters are progressively trained to generate cancellation signals. By starting with a low power training signal, the amount of crosstalk coupling may be reduced (due to the lower power signal), yet</p>

		<p>training may still occur.</p> <p>The crosstalk cancellation may be performed, due to the partially trained filter, to a sufficient degree to not interfere with communication on the other active channels.” EX1006, ¶[0053]; Pet., 37-39.</p>
<p>1[e] - wherein the controller is configured to evaluate whether crosstalk from the new DSL line set affects the already-operating DSL line set.</p>	<p>“It is further recognized that the NEXT noise contributed to the cable bundle by the addition of the new loop communication 86 and its required upstream and downstream bandwidths 74 and 75 varies as a function of position within the total available upstream and downstream bandwidths 70 and 72” and “by sliding the position of the required upstream and downstream bandwidths 74 and 75</p>	<p>“The purpose of this training signal is to probe the crosstalk coupling channels, identify their coupling strengths and design appropriate cancellation filters all while not disturbing operation of the other active provisioned channels.” EX1006, ¶[0082]; Pet., 41-42.</p>

	within the total available upstream and downstream bandwidths 70 and 72, and through the NEXT noise overlapping bandwidth 88, as indicated by the arrows 76, and further noting the NEXT noise contributed to the cable bundle at each possible location, an optimal position having minimized NEXT noise may be selected for the required upstream and downstream bandwidths 74 and 75.” EX2006, ¶[0054]; EX1004, 393-396 (citing Wang for similar features).	
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As illustrated above, not only was Tsatsanis expressly cited during prosecution, but Petitioner applies Tsatsanis in Ground 1A of the Petition in substantially the same manner as the Examiner applied Wang during prosecution of the '122 patent.

Petitioner’s choice to use Tsatsanis in combination with Savor (in the alternative) in Ground 1B does not change the outcome of the analysis of *Becton*,

Dickinson factors (a), (b), and (d). In fact, the sole functionality in Savor that Petitioner seeks to implement in Tsatsanis's system is allegedly already present in Tsatsanis. Specifically, Petitioner seeks to implement "the additional performance measurements taught by Savor" into Tsatsanis's system. *See* Pet., 17-18, 20 ("Upon activation of a new channel (as disclosed by Tsatsanis), the POSITA would have been motivated to additionally measure the performance parameters tracked by Savor to ensure acceptable performance by the new channel and integration with the already-active channels").

Petitioner alleges that "Savor discloses exemplary, non-limiting DSL performance parameters including, for example, several parameters representing noise, several parameters representing information about each tone, a parameter representing code violations for each line, and a parameter representing forward error correction information." *Id.*, 20. However, elsewhere, Petitioner also alleges that Tsatsanis's system is already configured to analyze such performance parameters. *See* Pet., 53 (**Noise** – Petitioner alleges that "**Tsatsanis teaches a method that 'monitors**, with one or more CPE receivers associated with **active channels, for noise**, coupling or both generated by transmission of the training signal **and isolates noise**, coupling, or both generated by the training signal and received at the CPE receivers associated with active channels.'") *citing* EX1006, [0017]; Pet. 50 (**Tones** – Petitioner alleges that "Tsatsanis teaches that the MIMO

processing module processes ‘**256 tones** on each of fourteen channels or lines’ ...

[and] Tsatsanis states that ‘processing may occur on one frequency at a time (fourteen channels) as the system cycles through the **256 frequencies [(i.e., tones)]**, which represent the data.’”) *citing* EX1006, ¶[0061] (original emphasis removed, new emphasis added); EX1006, ¶[0058] (disclosing that “[i]t is also contemplated that **error correcting coding** type modulation may occur”).

Therefore, under Petitioner’s own interpretation of Tsatsanis, the implementation of Savor’s additional performance measurements into Tsatsanis’s system does not materially change the scope of the Tsatsanis’s existing system. As a result, the combined system of Tsatsanis and Savor presented in Ground 1B of the Petition is also substantially similar to what was already applied by the Office during prosecution.

Because Tsatsanis appears on the face of the ’122 patent, Tsatsanis was considered by the Examiner, and because both Tsatsanis and the combination of Tsatsanis and Savor are substantially similar to what was already applied by the Office during prosecution of the ’122 patent, the first prong of *Advanced Bionics* is satisfied. *See Fellowes, Inc. v. Treefrog Devs., Inc.*, IPR2020-01509, Paper 11 at 7-9, 17-18 (PTAB Feb. 22, 2021) (denying institution based on § 325(d) because the prior art reference was considered by the Examiner, and was cited in an IDS and

listed on the face of the patent); *Ecto World, LLC and SV3, LLC v. RAI Strategic Holdings, Inc.*, IPR2024-01280, Paper 10, 10-11 (PTAB Mar. 6, 2025) (same).

B. The second prong of the *Advanced Bionics* framework is also met

“If, after review of factors (a), (b), and (d), it is determined that the same or substantially the same art or arguments previously were presented to the Office, then factors (c), (e), and (f) relate to whether the petitioner has demonstrated a material error by the Office.” *Advanced Bionics*, Paper 6 at 10. Petitioner does not address factors (c), (e), and (f), and does not adequately demonstrate material error by the Office.

Petitioner provides two conclusory explanations for why it believes that the Office materially erred during prosecution of the ’122 patent, each of which is flawed. First, Petitioner alleges that it has shown that the Office materially erred because the Petition explains that “Tsatsanis, by itself or in combination with Savoor, discloses or renders obvious all the features of the independent claims.” Pet., 67. However, the Board in the past has declined to independently review and assess the merits of a petition’s grounds to conclude whether and how any material error occurred when a petitioner fails to explain what the alleged material error was. *See, e.g., Roku, Inc. v. Universal Elecs., Inc.*, IPR2019-01619, Paper 11, 11, 19 (PTAB April 2, 2020) (noting that a reference “was previously presented to the Office . . . in an [IDS],” and not considering the merits of the challenge when

petitioner did not “explain adequately how the Examiner erred in a manner material to the patentability ... by allegedly not considering [the reference]”); *Google LLC v. Kewazinga Corp.*, IPR2021-00527, Paper 16, 18–19 (PTAB Aug. 24, 2021) (same); *Microsoft Corp. v. IPA Techs. Inc.*, IPR2019-00840, Paper 9, 17 (PTAB Nov. 12, 2019) (“Petitioner . . . does not explain how or why the examiner erred in evaluating” a reference cited in an IDS and finding “this factor weighs strongly in favor” of discretionary denial); *Ivantis, Inc. v. Sight Sciences, Inc.*, IPR2022-01540, Paper 14, 13-14 (PTAB Mar. 22, 2023) (denying institution where petitioner made no attempt to establish Examiner error in evaluating the art previously presented to the Office).

Thus, the Board should reject Petitioner’s attempt to rely on the merits of its grounds as evidence of material error. “That approach not only places Petitioner[s’] burden improperly on the shoulders of the Board, it cuts against the express language of our § 325(d) precedent requiring that Petitioner[s] make a ‘showing of material error’ and ‘point[] out sufficiently how’ the Examiner erred.” *Google*, IPR2022-01197, Paper 18, 22-23 (citing *Advanced Bionics* at 8-9). In fact, “the express language of *Advanced Bionics* suggests that a petitioner should explain with specificity what it believes the previous error is and also show why that error is material to the patentability of the challenged claims.” *Id.* (citing *Advanced Bionics* at 8-9).

Petitioner’s second conclusory explanation for why it believes that the Office materially erred during prosecution of the ’122 patent is that the combination of Tsatsanis and Savor “was never considered by the Examiner with respect to any of the issued claims.” Pet., 67. This reasoning is flawed in two respects. Not only does this explanation fail to recognize that the combination of Tsatsanis and Savor is substantially similar to what was already applied by the Office during prosecution of the ’122 patent (as explained above), but the explanation is also contrary to prior Board decisions. Indeed, merely alleging that prior art was not applied or considered, without more, is insufficient to satisfy a Petitioner’s burden to show material error. *See, e.g., ABS Global, Inc. v. Cytonome/ST, LLC*, IPR2021-00306, Paper 13, 13-14 (PTAB June 7, 2021) (argument that the Examiner did not consider or apply certain prior art was insufficient because petitioner did “not point[] out any specific disclosure from [the prior art] that was overlooked by the Office.”); *Vital Connect. Inc. v. Bardy Diagnostics, Inc.*, IPR2023-00381, Paper 7, 19 (PTAB July 11, 2023) (argument that grounds were “not previously considered and/or applied by the Examiner..., without any further analysis, cannot persuade us of material error.”).

For at least these reasons, the second part of the *Advanced Bionics* framework is therefore also met.

* * *

In sum, the facts here show that: (i) all of Petitioner’s grounds are based on a primary reference (Tsatsanis) that was cited during prosecution; (ii) both Tsatsanis (Ground 1A) and Tsatsanis in view of Savoor (Ground 1B) are cumulative of a ground that was thoroughly examined and found to be deficient during prosecution; and (iii) Petitioner has not sufficiently identified a material error made by the Office during prosecution. Accordingly, the Board should exercise its discretion to deny review under § 325(d). *Advanced Bionics*, Paper 6, 8-9 (“If a condition in the first part of the framework is satisfied and the petitioner fails to make a showing of material error, the Director generally will exercise discretion not to institute *inter partes* review.”).

IV. 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;
- 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.

Several of these considerations—including the settled expectations of the parties, the extent of the Petition’s reliance on expert testimony, and certain compelling economic interests 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

Several developments demonstrate the settled expectations of the parties with respect the ’122 patent. 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 ’122 patent against Petitioner’s customer and real party in interest, AT&T

Until about three weeks ago, the ’122 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 11 months before the projected FWD deadline here**. EX2002, 1 (setting trial for September 22, 2025); EX2005, 1; EX2014, 1; EX1009, 1. While AT&T and Patent Owner 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 settlement means that there are now settled expectations between the parties that Patent Owner will no longer assert infringement of the '122 patent against Petitioner's customer and real party in interest, AT&T. *See* Pet., 73 (identifying AT&T Services Inc., AT&T Enterprises, LLC, AT&T Mobility LLC, and AT&T Mobility II LLC, and Nokia of America Corp. as real parties in interest). This understanding of settled expectations also extends to Petitioner as Petitioner admits in the Petition that the infringement positions in the previously co-pending litigation are largely based on Petitioner's products. *See id.*, 71 (stating that Patent Owner's infringement positions were "largely accusing Nokia products").

Thus, the well-settled expectation that Patent Owner will no longer assert

infringement of the '122 patent against Petitioner's customer and real party in interest, AT&T, 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 '122 patent have been in force for over 13 and a half years. EX1001, (45). Petitioner's customer and real party in interest, AT&T, was also provided with actual notice of the '122 patent and Patent Owner's infringement allegations relating thereto over a year and half ago. EX2004, ASSIA-AT&T Complaint, ¶¶42, 59-66. Despite this notice, Petitioner **waited over a year** after the filing of the district court complaint in the previously co-pending litigation (and a mere one day before AT&T's statutory bar date under 35 U.S.C. § 315(b)), and **15 months** after AT&T was provided with actual notice of the '122 patent to file the instant Petition. This was also **over eight months** after infringement contentions were served in the previously co-pending litigation. Petitioner makes no mention of this delay in its Petition.

Taking more than a year from the filing of the district court complaint to challenge a reasonable number of claims—20 total claims, with 13 unique claims—is not diligent. This is even truer considering the fact that all of Petitioner’s grounds rely (improperly) on a primary reference that was cited during prosecution and is cumulative of another reference substantively applied by the Examiner during prosecution. *See* Section III *supra*. 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 (PTAB 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 (PTAB 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 additional 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 (PTAB 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 V *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 are again without technical explanations or evidence to support the conclusions. *SFC Co., Ltd. v. LG Chem, Ltd.*, IPR2020-00178, Paper 16, 37-39 (May 29, 2020); *TRW Automotive US LLC v. Magna Elecs. Inc.*, IPR2014-00258, Paper 16, 19-23 (PTAB. Jun. 26, 2014) (rejecting obviousness analysis that failed to support rationale with supporting evidence and technical reasoning). In fact, Petitioner’s expert **only considered a single technical reference** beyond the asserted

references, the '122 patent, and the '122 patent's file history. *See* EX1002, ¶13.

And Petitioner's expert cited this single technical reference (EX1007) a total of two times in the entirety of the declaration. *See id.*, ¶¶90, 123.

As such, Petitioner's improper use of expert testimony further supports discretionary denial under 35 U.S.C. § 314(a).

C. Compelling economic interests

Compelling economic interests further weigh in favor of the Director exercising discretion to deny the Petition. For example, the district court, Patent Owner, and Petitioner's customer and real party in interest, AT&T, already made significant economic investment in the previously co-pending litigation before it was settled just three 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 a mere month away from the completion of fact discovery before reaching a settlement. EX2005, 1, 3-4.

Additionally, Patent Owner and AT&T expended significant 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 proceedings 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.

V. The Merits of the Petition are Weak

The Director should use discretion to deny the Petition for each of the reasons discussed above, and for the additional reason that the merits of the Petition are weak.⁴ Indeed, Grounds 1A and 1B, which are the only grounds in the Petition challenging the independent claims of the '122 patent, are deficient because Petitioner did not establish a reasonable likelihood that Tsatsanis, alone or in combination with Savor, renders the challenged claims obvious. As discussed briefly below, Petitioner's Grounds 1A and 1B fail for at least the following reasons:

1. Tsatsanis, alone or in combination with Savor, fails to disclose, or render obvious, "*evaluating data received by the new DSL line set; and evaluating data received by the already-operating DSL line*

⁴ 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]." EX2003, FAQs for Interim Processes for PTAB Workload Management, FAQ 12.

set,” as recited in independent claim 1 (and similarly recited in independent claims 14 and 20); and

2. Tsatsanis, alone or in combination with Savoor, fails to disclose, or render obvious, “*sending control signals, via a control signal generator coupled to the analysis unit, to the new DSL line set and to the already-operating DSL line set,*” as also recited in independent claim 1 (and similarly recited in independent claims 14 and 20).

While both of these bases for denial of institution are discussed briefly below, the full scope of these arguments are included in Patent Owner’s forthcoming merits brief. In accordance with 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. EX2003, FAQs for Interim Processes for PTAB Workload Management, FAQ 12.

A. The Petition’s primary reference, Tsatsanis is only tangentially related to DSL

Despite having more than a year to search for prior art against the ’122 patent, Petitioner’s lone primary reference, Tsatsanis, is deficient for numerous reasons. Tsatsanis was not only cited during prosecution of the ’122 patent, but is also cumulative of art that was thoroughly examined and found to be deficient during prosecution. Thus, it is unsurprising that Tsatsanis has numerous

deficiencies, each of which spawn from the simple fact that Tsatsanis is only tangentially related to the DSL technologies that are at the core of the '122 patent.

Tsatsanis describes certain general concepts that overlap with the DSL-specific implementations disclosed in the '122 patent. For example, Tsatsanis describes a method for “canceling crosstalk type coupling in a multi-channel communication system.” EX1006, ¶[0009]. Tsatsanis also describes a multi-channel communication device having a transceiver that is able to “generate a cancellation signal tailored to cancel, from a victim channel, the crosstalk that couples into the victim channel.” *Id.*, ¶[0043]. The generated signal may be “at a first power level on a channel being provisioned during a training process, wherein one or more other channels associated with the multi-channel communication device are already provisioned.” *Id.*, ¶[0009].

However, the overlap largely stops there. Indeed, the only direct mention of DSL in Tsatsanis comes in the form of a single sentence in Tsatsanis’s discussion of the Related Art. *Id.*, ¶[0004] (“One example environment where a point to multi-point configuration may be used is when provisioning DSL service to a home or business”). When it comes to the discussion of Tsatsanis’s process for cancelling crosstalk of a new channel (e.g., channel N+1), that discussion is devoid of any mention of DSL or any implementation details specific to DSL systems, like

those disclosed in the '112 patent. *Compare id.*, ¶¶[0081]-[0088], FIG. 9 with EX1001, Abstract.

To be clear, the structural configuration and implementation disclosed for Tsatsanis's multi-channel communication device is divorced from a DSL-specific environment. While Tsatsanis describes several structural components included within the transceiver of its multi-channel communication device (*see* EX1006, FIG. 7), none of these components operate within the same DSL-centric environment described the '122 patent. Petitioner is similarly unable to identify any specific interactions between Tsatsanis's multi-channel communication device and the specific elements of a DSL environment. For example, the '122 patent describes a DSL Optimizer and Control Unit that directly interact with DSL deployment devices, such as an ATU-C, ATU-R, and other DSL devices, to provision and train new DSL lines. *See, e.g.*, EX1001, 5:52-6:4. Conversely, Tsatsanis merely describes receiving communication signals via a generic transceiver without any specific interactions with DSL deployment devices, such as those identified in the '122 patent. *See* EX1006, ¶¶[0063]-[0071], FIG. 7.

Therefore, Petitioner's lone primary reference is deficient as it does not contemplate the established and emerging DSL technologies integral to the provisioning and training features disclosed in the '122 patent. As a result, the

specific structural details and processing techniques disclosed and claimed in the '122 patent are missing from Tsatsanis.

B. Tsatsanis, alone or in combination with Savoor, fails to disclose, or render obvious, “*evaluating data received by the new DSL line set; and evaluating data received by the already-operating DSL line set,*” as recited in independent claim 1 (and similarly recited in independent claims 14 and 20)

Petitioner fails to show that Tsatsanis discloses, or renders obvious, “*evaluating data received by the new DSL line set*” and “*evaluating data received by the already-operating DSL line set,*” as recited in independent claim 1. The Petition relies solely on Tsatsanis to allegedly disclose these claim features. *See* Pet., 36-37. However, Petitioner’s arguments relating to these claim features fail for at least one distinct reason: Tsatsanis’s crosstalk related information is not the claimed “*data*” being evaluated in the “*evaluating*” steps recited in claim element 1[c].⁵

Here, Petitioner alleges that Tsatsanis discloses the claimed “*evaluating data received by the new DSL line set*” and “*evaluating data received by the already-operating DSL line set*” because Tsatsanis discloses that “operational data received

⁵ For ease of reference, Patent Owner identifies the relevant claim features here using the labeling provided in the Petition (e.g., claim element 1[c]). *See* Pet., 28-36.

by the CO from the CPE is ‘further processed and appropriate channel information extracted’ prior to adjustment.” Pet., 36 *citing* EX1006, ¶[0083]. Petitioner clarifies that when it refers to operational data, it is referring to Tsatsanis’s “channel parameters,” which “include ‘crosstalk related information at one or more of the CPEs.’” Pet., 28 *citing* EX1006, ¶¶[0081]-[0083]. Therefore, Petitioner’s position is that Tsatsanis’s crosstalk related information is allegedly the “*data*” being evaluated in the “*evaluating*” steps recited in claim element 1[c]. However, Petitioner’s position is flawed both legally and technically.

First, and as explained in further detail in Patent Owner’s forthcoming merits briefing, Petitioner’s position is flawed from a legal perspective because Petitioner improperly equates the same information from Tsatsanis to two separate and distinct features in claim 1 of the ’122 patent.

Second, and as also explained in further detail in Patent Owner’s forthcoming merits briefing, Petitioner’s argument is technically flawed. Indeed, a POSA would have understood that Tsatsanis’s crosstalk related information (the alleged “*operational data*”) is not the “*data*” being evaluated in claim element 1[c], because crosstalk is fundamentally different than the data that is intentionally transmitted/received over DSL line sets.

Therefore, Tsatsanis, alone or in combination with Savor, does not disclose, or render obvious, “*evaluating data received by the new DSL line set; and*

evaluating data received by the already-operating DSL line set,” as recited in independent claim 1 (and similarly recited in independent claims 14 and 20).⁶ For at least these reasons, independent claims 1, 14, and 20 are patentable over these applied references. Dependent claims 2-13 and 15-19 are likewise patentable at least for their dependencies from the independent claims.

C. Tsatsanis, alone or in combination with Savor, fails to disclose, or render obvious, “*sending control signals, via a control signal generator coupled to the analysis unit, to the new DSL line set and to the already-operating DSL line set,*” as recited in independent claim 1 (and similarly recited in independent claims 14 and 20)

Petitioner also fails to show that Tsatsanis, alone or in combination with Savor, discloses or renders obvious “*sending control signals, via a control signal generator coupled to the analysis unit, to the new DSL line set and to the already-operating DSL line set,*” as recited in independent claim 1. The Petition advances two theories as to why the applied references render obvious this claim feature—one based on Tsatsanis alone, and a second based on the combination of Tsatsanis and Savor. *See* Pet., 37-41. However, both theories fail for at least one distinct reason: neither Tsatsanis nor Savor disclose the claimed “*control signal*

⁶ Petitioner does not rely on Savor in its analysis of claim element 1[c]. But even if it did, the addition of Savor would not cure Tsatsanis’ deficiencies. *See* Pet., 34 (identifying the same “cross talk” information from Savor).

generator.”

Turning first to Petitioner’s theory that rests on Tsatsanis alone. Petitioner alleges that a “POSITA would have understood that portions of the disclosed Processor/Controller ... teach the ‘control signal generator’ because it calculates the filter coefficients sent to the MIMO module ... to cancel crosstalk and thus control operation of the new and existing lines.” Pet., 39. Petitioner clarifies that “a POSITA would have understood that a transmitter, separate from the actual processor/controller, would have been necessary or at least would have been obvious to send the control signals of the processor/controller,” and it is “this separate transmitter” that allegedly discloses the claimed “*control signal generator.*” *Id.* Petitioner, however, is incorrect.

As explained in further detail in Patent Owner’s forthcoming merits briefing, Tsatsanis’s undisclosed, but allegedly obvious, transmitter coupled to Processor/Controller 724 is not the claimed “*control signal generator.*” Indeed, the ’122 patent makes clear that the claimed “*control signal generator*” does not merely transmit control signals, but also generates them: “signal generator 350 is configured to **generate and send instruction signals** to modems and/or other components of the communication system (for example, ADSL and/or VDSL transceivers and/or other equipment, components, etc. in the system).” EX1001, 14:2-6 (emphasis added). Thus, a transmitter allegedly coupled to Tsatsanis’s

Processor/Controller 724, which Petitioner alleges merely “sends the claimed ‘control signals,’” does not disclose the claimed “*control signal generator*.” See Pet., 39. Therefore, Petitioner’s first theory fails.

Turning now to Petitioner’s second theory: that Tsatsanis in combination with Savor discloses or renders obvious this claim feature. Petitioner alleges that Savor’s “central office computer 126 can interface with the ATU-Cs and the ATU-Rs, or their respective agents, in order to obtain performance data, extract provisioning data, implant provisioning data, and control the circuit provisioning in order to provide optimum performance of each DSL circuit.” Pet., 40 *citing* EX1005, 8:35-43. Petitioner then concludes that “[s]ince the central office computer controls the circuit provisioning, a POSITA would have understood that it teaches the ‘control signal generator.’” *Id.*, 41. However, as explained in further detail in Patent Owner’s forthcoming merits briefing, Petitioner has failed to provide **any** motivation to implement Savor’s structural components (including central office computer 126) into Tsatsanis’s system. Moreover, Petitioner does not explain why, much less how Savor’s central office computer 126 would be implemented within Tsatsanis, which already has structural components configured to perform the same functionality identified in Savor. Therefore, Petitioner’s second theory also fails.

As such, Tsatsanis, alone or in combination with Savor, does not disclose

or render obvious “*sending control signals, via a control signal generator coupled to the analysis unit, to the new DSL line set and to the already-operating DSL line set,*” as recited in independent claim 1 (and similarly recited in independent claims 14 and 20). For at least these reasons, independent claims 1, 14, and 20 are patentable over these applied references. Dependent claims 2-13 and 15-19 are likewise patentable at least for their dependencies from the independent claims.

VI. 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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CERTIFICATION OF WORD COUNT

The undersigned hereby certifies that the portions of the above-captioned **PATENT OWNER'S DISCRETIONARY DENIAL BRIEF**, has 8,409 words, in compliance with the 14,000 word limit set forth in 37 C.F.R. § 42.24. This word count was prepared using Microsoft Word 2016.

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CERTIFICATION OF SERVICE

The undersigned hereby certifies that the above-captioned **PATENT OWNER'S DISCRETIONARY DENIAL BRIEF**, and Exhibits 2001-2008 were served electronically in their entireties on May 6, 2025, upon the following parties by email:

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