

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SMARTSKY NETWORKS LLC,

Petitioner

v.

GOGO BUSINESS AVIATION LLC,

Patent owner

Case: IPR2025-00672

U.S. Patent No. 9,954,600

**PETITIONER’S OPPOSITION TO PATENT OWNER’S REQUEST FOR
DISCRETIONARY DENIAL**

Mail Stop PATENT BOARD
Patent Trial and Appeal Board
US Patent and Trademark Office
PO Box 1450
Alexandria, Virginia 22313-1450

TABLE OF CONTENTS

TABLE OF CONTENTS.....	ii
TABLE OF AUTHORITIES	iii
LIST OF EXHIBITS.....	iv
I. Introduction	1
II. Discretionary Denial Is Not Warranted	2
a. The Timing of the '600 Patent and the Co-Pending Litigation Weigh Against Denial	2
b. The Petition is Not Over-Reliant on Expert Testimony.....	7
1. The Expert Testimony on Anticipation is Appropriately Focused and Provides Helpful Context by Directing the Board to Relevant Passages in the Prior Art	8
2. The Expert Testimony Repeatedly Outlines the ‘How’ and ‘Why’ of Obviousness and Appropriately Supports Analyses with Express Citations.....	11
III. Conclusion.....	15

TABLE OF AUTHORITIES

Cases

<i>Amazon.com, Inc. et al. v. NL Giken Inc.</i> , IPR2025-00250 (PTAB May 16, 2025) .	5
<i>Apple Inc. v. Fintiv, Inc.</i> , IPR2020-00019 (PTAB Mar. 20, 2020)	4
<i>Cambridge Industries USA, Inc. v. Applied Optoelectronics, Inc.</i> , IPR2025-00434 (PTAB June 26, 2025)	7
<i>Mercedes-Benz Group AG v. The Phelan Group, LLC</i> , IPR2025-00413 (PTAB June 25, 2025)	5
<i>SmartSky Networks, LLC v. Gogo Bus. Aviation, LLC</i> , No. 1:22-cv-00266-JDW (D. Del. Feb. 28, 2022)	4
<i>VMWare, Inc. v. Intellectual Ventures I LLC</i> , IPR2020-00470 (PTAB Aug. 18, 2020)	5
<i>Zhuhai Cosmx Battery Co., Ltd. v. Ningde Ampere Tech. Ltd.</i> , IPR2025-00385 (PTAB July 2, 2025)	5, 7

Statutes

35 U.S.C § 314(b)	4
35 U.S.C § 316(a)(11).....	5

Other Authorities

FAQs for Interim Processes for PTAB Workload Management, Ex. 1010	9
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LIST OF EXHIBITS

Exhibit	Short Name	Description
Ex. 1001	'600 Patent	U.S. Patent No. 9,954,600
Ex. 1002	Declaration	Declaration of Dr. Gerard James Hayes
Ex. 1003	CV	<i>Curriculum Vitae</i> of Dr. Gerard James Hayes
Ex. 1004	'600 File History	File History of U.S. Patent No. 9,954,600
Ex. 1005	Chapelle	U.S. Patent No. 9,306,657
Ex. 1006	Jalali	U.S. Patent Application Publication No. 2014/0200045
Ex. 1007	Nelson	U.S. Patent No. 7,177,939
Ex. 1008	Mcguffin	European Patent No. 2,207,275
Ex. 1009	Scheduling Order	Docket Entry 463, Scheduling Order of January 14, 2025, <i>SmartSky Networks, LLC v. Gogo Bus. Aviation, LLC</i> , No. 1:22-cv-00266-JDW (D. Del. Feb. 28, 2022)
Ex. 1010	Workload Memo FAQs	FAQs for Interim Processes for PTAB Workload Management, available at https://www.uspto.gov/patents/ptab/faqs/interim-processes-workload-management (last accessed July 8, 2025)

I. INTRODUCTION

Pursuant to Acting Director Stewart’s March 26, 2025 Memorandum titled “Interim Processes for PTAB Workload Management” (the “**Workload Memo**”), Petitioner SmartSky Networks LLC (“**Petitioner**” or “**SmartSky**”) submits this brief in opposition to the Request for Discretionary Denial (Paper 6; the “**Request**”) filed by Patent Owner Gogo Business Aviation LLC (“**Patent Owner**” or “**Gogo**”).

Discretionary denial is not appropriate in these proceedings given the totality of the evidence and arguments in view of all relevant considerations. The relevant considerations within the framework outlined by the Workload Memo overwhelmingly weigh against discretionary denial. In a number of other petitions with circumstances similar to here, discretionary denial was deemed inappropriate (including unsuccessful patent owner allegations of over-reliance on expert testimony). For example, the Request mentions in passing the parallel pendency of district court litigation between the parties, but fails to fully disclose that trial is scheduled for March 8-12, 2027, so it is not expected until several months after conclusion of the IPR proceedings. Further, Patent Owner has not developed strong settled expectations since U.S. Patent No. 9,954,600 (the “**'600 Patent**”) has not been in force for a significant period of time (also in line with prior decisions against discretionary denial pursuant to the Workload Memo).

Patent Owner's Request is conspicuously silent on any of the aforementioned or other factors, which is quite telling. Rather, Patent Owner's sole argument is that Petitioner is allegedly over-reliant on expert testimony (e.g., whether for anticipation or obviousness, for disclosed elements or motivation to combine). Yet, in self-serving fashion, Patent Owner ignores arguments made in the exact same paragraph or slightly further, on the exact same pages, that Patent Owner cited. Patent Owner's argument falls short, as it selectively cites certain portions of the Declaration of Dr. Gerard James Hayes (the "**Dr. Hayes Declaration**") and the Petition for *Inter Partes* Review of U.S. Patent No. 9,954,600 (the "**Petition**" or "**IPR Petition**"). As demonstrated below, by reading the same pages or even paragraphs that Patent Owner cited, one can find the various forms of additional factual, analytical, or literature support that Patent Owner speciously claimed were lacking.

II. DISCRETIONARY DENIAL IS NOT WARRANTED

Deciding whether to grant Patent Owner's Request is bifurcated between discretionary factors versus merits or other statutory non-discretionary factors. *See* Workload Memo at 1. In assessing considerations for discretionary denial,

- the parties are permitted to address all relevant considerations,
- which may 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.

Id. at 2-3. Patent Owner's reliance on a single factor is unavailing and debunked below. Further, among other reasons and as more particularly outlined herein, the Request should be denied because: validity of the '600 Patent claim has not been presented for adjudication in another forum; recent cases since the Workload Memo support referring the Petition to the Board; the strength of Petitioner's challenge is strong on the merits; the Petition's use of expert testimony is properly focused; and Patent Owner has not developed strong settled expectations given the short length of time since claim issuance.

**A. The Timing of the '600 Patent and the Co-Pending Litigation
Weigh Against Denial.**

Neither the factors listed in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper No. 11 at 5-6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”), nor recent analogous decisions pursuant to the Workload Memo, favor discretionary denial of this Petition. Here, there is co-pending district court litigation between Petitioner and Patent Owner, and the expected timing of trial favors institution of the present IPR proceedings. Further, Patent Owner has not established strong settled expectations with respect to the '600 Patent, also weighing against discretionary denial.

Petitioner and Patent Owner are parties to *SmartSky Networks, LLC v. Gogo Bus. Aviation, LLC*, No. 1:22-cv-00266-JDW (D. Del. Feb. 28, 2022) (the “Litigation”), where Patent Owner, via counterclaim, asserted infringement of the '600 Patent. *See* Patent Owner’s Request, Paper 6 at 2. Patent Owner has known of Petitioner and Petitioner’s business for many years; in 2020 Patent Owner unsuccessfully attempted to institute IPR2020-00709 against Petitioner’s separate U.S. Patent No. 9,312,947, and the Litigation was brought by Petitioner against Patent Owner in February of 2022. Yet Patent Owner did not assert infringement of the '600 Patent until March 5, 2024, leading to a separate, bifurcated scheduling order for the counterclaims, with trial being set for March 8-12 of 2027. Ex. 1009.

In these IPR proceedings, Patent Owner’s preliminary response is due July 14, 2025. *See* Notice of Filing Date Accorded to Petition, Paper 5 at 1. Under 35 U.S.C § 314(b), a decision to institute would occur no later than October 14, 2025, and

under 35 U.S.C § 316(a)(11) a final determination would issue no later than October 14, 2026 (potentially April 14, 2027 if extended for good cause).

The first *Fintiv* factor is at least neutral because no party has requested a stay. Pet. 60; *see also VMWare, Inc. v. Intellectual Ventures I LLC*, IPR2020-00470, Paper 13 at 17 (PTAB Aug. 18, 2020) (in absence of stay motion, this factor “does not weigh for or against discretionary denial”). The second factor weighs against denial because the March 2027 trial is set beyond the statutory timeframe for IPR proceedings to conclude in October 2026. Recent decision-making pursuant to the Workload Memo supports this. *See Mercedes-Benz Group AG v. The Phelan Group, LLC*, IPR2025-00413, Paper 13 at 2 (PTAB June 25, 2025) (discretionary denial not appropriate where it was “likely that a final written decision in this proceeding will issue before the district court trial occurs.”)

In fact, discretionary denial was inappropriate under the Workload Memo even when trial was scheduled shortly after the expected date of a final determination. *See Amazon.com, Inc. et al. v. NL Giken Inc.*, IPR2025-00250, Paper 14 at 2 (PTAB May 16, 2025) (projected final written decision due date was 8 days after scheduled trial date, but consideration was given to time-to-trial statistics knowing trial likely would not begin until later); *see also Zhuhai Cosmx Battery Co., Ltd. v. Ningde Ampere Tech. Ltd.*, IPR2025-00385, Paper 9 at 2 (PTAB July 2, 2025) (deeming

discretionary denial inappropriate despite acknowledging trial scheduled one month before an expected written decision in the IPR proceedings).

The third *Fintiv* factor also weighs against discretionary denial because the Litigation on the counterclaims remains in its early stages and the district court will not invest significant resources in resolving those claims until well in the future, certainly long after issuance of the Board's institution decision expected in October 2025. *See* Pet. 61. Fact and expert discovery, claim construction briefing, Markman hearing, and dispositive motions are all currently scheduled for much later in 2026. *See* Ex. 1009.

The fourth and fifth *Fintiv* factors do not weigh against institution. *See* Pet. 61. The overlap of parties does not strongly weigh against institution, and in any event would be outweighed by the other considerations herein. Additionally, Petitioner here challenges all 19 claims of the '600 Patent, whereas in the Litigation at this time validity has not been contested; nor have infringement contentions for all 19 claims been established, which ultimately is not expected by the time of trial. As such, there is little overlap between the arguments in the Litigation and the challenged claims here.

The final *Fintiv* factor (other considerations) strongly weighs against discretionary denial. Without restating the Petition, the merits of Petitioner's

arguments are strong, and there has been no excessive reliance on expert testimony, as explained below.

Importantly here, Patent Owner has not developed strong settled expectations. The '600 Patent issued in April of 2018. *See* Patent Owner's Request, Paper 6 at 2; Ex. 1001. Decisions pursuant to the Workload Memo have found discretionary denial to be inappropriate for patents with similar timeframes. *See Zhuhai*, IPR2025-00385 Paper 9 at 2 (no strong settled expectations where patent issued in 2021) and *Cambridge Industries USA, Inc. v. Applied Optoelectronics, Inc.*, IPR2025-00434, Paper 11 at 2-3 (PTAB June 26, 2025) (no strong settled expectations where patents issued in 2020 and 2019).

The time between the grant of the '600 Patent and the filing of the IPR Petition was caused at least in part by Patent Owner's own conduct and multiyear delay in asserting the '600 Patent, for which Petitioner should not be penalized. This case should be treated like *Zhuhai* and *Cambridge*, and the Petition should be referred to the Board.

B. The Petition is Not Over-Reliant on Expert Testimony.

The sole argument presented in Patent Owner's Request is excessive reliance in the Petition on the Dr. Hayes Declaration. Patent Owner repeats this stance in a number of different ways, e.g., regarding anticipation, obviousness, claim elements, and motivation to combine. However, it is readily apparent from the Petition and the

Dr. Hayes Declaration that all support appropriately stems from the cited prior art. For convenience of organization, Patent Owner's allegations are taken up below in the order in which they were presented.

1. The Expert Testimony on Anticipation is Appropriately Focused and Provides Helpful Context by Directing the Board to Relevant Passages in the Prior Art.

Patent Owner alleges no technical literature supports the interchangeability or equivalency of signal-to-interference ratio with **signal-to-noise ratio (SNR)**. *See* Patent Owner's Request, Paper 6 at 5. However, the literature support is the cited prior art itself. The Dr. Hayes Declaration provides:

In this regard, de La Chapelle discloses that a signal to interference ratio, which a POSA would understand to be interchangeable with the signal-to-noise ratio mentioned in claim 1 of the '600 patent, is used in signal to interference analysis that is performed with respect to multiple base stations (i.e., BTSs). Notably, de La Chapelle is clear in indicating interchangeableness of signal-to-noise ratio (SNR) with the signal-to-interference ratio by virtue of the substitution of SNR in the description of 17:48-53 for the signal-to-interference ratio otherwise discussed in similar terms at 8:63-9:4 of Ex. 1005.

Ex. 1002, ¶ 46 (emphasis added). This is proper use of expert testimony. *See, e.g.*, FAQs for Interim Processes for PTAB Workload Management, Ex. 1010 at ¶ 21 (“It is most helpful if an expert is providing focused testimony, for example to provide helpful context or to explain terms of art.”). Dr. Hayes is directing the Board to the relevant passages of the cited reference, providing helpful context to explain the terms of art at issue. This is an expressly approved function and not over-reliance on expert testimony.

Regarding **capacity estimates**, the Request alleges no engineering basis was offered to support their interchangeability as a quality parameter. *See* Request, Paper 6 at 5. The Request fails to recognize where the Petition and Dr. Hayes Declaration repeatedly point to express statements in the cited reference, specifically regarding capacity, interference, and signal strength—

In this regard, Chapelle expressly notes that communication capacity . . . is limited by interference. Ex. 1005, 2:4-8. This is an immutable characteristic of communication networks. Thus, capacity is known by a POSA to be directly related to interference levels A POSA would appreciate [] Chapelle’s teaching . . . given that Chapelle specifically discusses the focus on capacity in its background section Ex. 1005, 4:20-27; Ex. 1002, ¶48. Chapelle describes this process with more specificity

in connection with operation 110 of FIG. 16, where signal strength measurement is expressly disclosed in connection with quality determination. Ex. 1005, 16:43-50.

Pet. 11-12 (emphasis added). Again, this is an example of focused expert testimony, providing helpful context and pointing to the relevant passages of the prior art.

The Request further alleges a lack of structural analysis in the context of the **forward-link user capacity matrix**. *See* Request, Paper 6 at 6. This fails to recognize the software architecture discussion of the necessity for computer storage for comparison. *See* Ex. 1002, ¶ 66 (“The quality related parameters . . . must be stored in a computer for comparison This necessity for storage inherently creates a matrix of parameters that can be compared.”) Here, matrix is the term of art being explained, again via focused expert testimony; and the backdrop of computer storage is helpful context being outlined and brought to the forefront. These are all proper limited uses of expert testimony.

Finally, the Request raises **return-link user capacity matrix** as an allegedly key limitation. *See* Request, Paper 6 at 7. However, as already highlighted in the Petition, “the recitation of this phrase as an alternative . . . means that anticipation is achieved without expressly showing this feature.” Pet. 21.

**2. The Expert Testimony Repeatedly Outlines the ‘How’ and
‘Why’ of Obviousness and Appropriately Supports
Analyses with Express Citations.**

Patent Owner’s arguments on obviousness are even weaker than its stance regarding anticipation. The Request alleges that Dr. Hayes’s testimony bridges technical gaps without support or creates disclosures not in references. *See* Patent Owner’s Request, Paper 6 at 8-9. However, as explained above, a full and fair read of the Petition along with the Dr. Hayes Declaration quickly reveals numerous citations to, and support from, express statements within the Chapelle reference itself, whether regarding SNR (Pet. 10; Ex. 1002, ¶ 46), capacity (Pet. 11-12; Ex. 1002, ¶ 48), or matrices (Pet. 13-14; Ex. 1002, ¶ 66). These examples are not exhaustive and it is not possible to repeat the entirety of the Petition and the Dr. Hayes Declaration herein, but it is readily apparent that Patent Owner’s sole argument does not weigh in favor of discretionary denial.

Patent Owner does not allege Dr. Hayes’s testimony creates disclosures with respect to prior art other than the Chapelle reference. However, the Request does make baseless allegations with respect to the motivation to combine references under Grounds 2-4 of the Petition. *See* Request, Paper 6 at 10-11.

Regarding **Ground 2**, Patent Owner claims that Dr. Hayes did not identify “what specific problem is being solved, what parameters are allegedly limited, or

why these particular references would be selected from the universe of prior art.” *Id.* Reading the entirety of ¶ 80 of Ex. 1002, one will see Dr. Hayes highlights the problem being solved as “the goal of having high data rate links” and identifies something as central to a prior art document as the title itself among the reasons why these references would be selected and combined. And contrary to Patent Owner’s assertion, Dr. Hayes does repeatedly specify the quality parameters to include signal strength, interference, and noise. *See, e.g., Id.* at ¶¶ 50-51, 66, 68, 70.

Even more glaringly, Patent Owner alleges that the **Ground 3** motivation to combine “consists of a single sentence asserting a POSITA ‘would find motivation from Nelson’s discussion of the use of out-of-band protocols.’ Pet. 55. Dr. Hayes adds nothing substantive . . . Dr. Hayes does not explain *how* or *why* a POSITA would have combined de La Chapelle, Jalali, and Nelson.” *See* Request, Paper 6 at 11 (emphasis in original). Yet Dr. Hayes stated “[i]t would be obvious to a POSA to provide the matrix information via out-of-band communications using the Ka or Ku band to avoid using bandwidth of other channels A POSA would find motivation from Nelson’s discussion of the use of out-of-band protocols to employ the Ka and Ku bands of Jalali.” Ex. 1002, ¶ 117. This is again properly focused expert testimony providing helpful context. Contrary to Patent Owner’s selective citations, Dr. Hayes does lend substantive explanation, highlighting the “why” (to

decrease or avoid using bandwidth of other channels) as well as the “how” (using out-of-band protocol or communication such as via Ka or Ku bands).

Finally, the Request alleges that **Ground 4** is unsupported by technical analysis, with only cursory description and no explanation of “*how* or *why* a POSITA would have combined de La Chapelle, Jalali, Nelson, and McGuffin.” *See* Request, Paper 6 at 11-12 (emphasis in original). Again, actually looking to the Dr. Hayes Declaration, as opposed to Patent Owner’s selective citations, readily shows the why and the how, respectively. “A POSA looking to conduct handoffs between beams does not wish to drop the connection.” Ex. 1002, ¶ 122. “The ways to select the best candidates for handoff are varied . . . parameters that can be measured and used as a basis for comparison (e.g., SNR, SINR, noise, etc.). These measured values can be used to estimate further characteristics like quality, data rate, or capacity.” *Id.* Again, this is hardly cursory, and further reflects proper focused expert testimony.

In Patent Owner’s last attempt to restate the same argument, Patent Owner alleges the expert testimony is conclusory, lacks factual support, and “parrots” legal arguments. *See* Patent Owner’s Request, Paper 6 at 13-14. Unfortunately for Patent Owner, the Request is again fatally flawed for selectively citing only certain portions of the Dr. Hayes Declaration while omitting other relevant parts that would contradict Patent Owner’s position.

Petitioner does not contest that there are sentences within both the Petition and the Dr. Hayes Declaration that frame the analysis within the context of required legal standards and terminology. By no stretch is it improper to at times make statements and use language such as “A POSA would be motivated to combine . . . since they provide similar solutions to the same problem.” Pet. 32; Ex. 1002, ¶ 80. The Request seems to believe the mere existence of such language permits extracting it in a citation and ignoring the surrounding facts and data. These things cannot be assessed in a vacuum. Using the aforementioned citation as an example, earlier in the same paragraph there is deeper support—namely, where Dr. Hayes and Petitioner invoke “the other explicit descriptions” and state that “[g]iven the title of Jalali” the context becomes clear, with “the goal [being] having high data rate links.” Pet. 31; Ex. 1002, ¶ 80.

Further, as mentioned above, the Dr. Hayes Declaration delves into various reasons ‘why’ it would be obvious to combine references, such as the desire “to conduct handoffs [without dropping] the connection,” Ex. 1002, ¶ 122; as well as ways ‘how’ to combine references, such as “out-of-band communications using the Ka or Ku band to avoid using bandwidth of other channels,” *id.* at ¶ 117. Throughout, Dr. Hayes’s focused testimony is grounded in explicit statements within the cited references, e.g., regarding SNR, *id.* at ¶ 46, capacity, *id.* at ¶ 48, and matrices, *id.* at ¶ 66.

III. CONCLUSION

The Petition is likely to prevail on the merits, and Dr. Hayes's testimony is proper and focused within the guidelines of FAQs for Interim Processes for PTAB Workload Management. Ex. 1010 at ¶ 21. Patent Owner's single argument that the Petition is over-reliant on expert testimony is unavailing, as detailed above, and should be rejected in line with similar recent decision-making pursuant to the Workload Memo.

Patent Owner does not have strong established expectations with the '600 Patent having issued in 2018, and the distant timing of the co-pending Litigation counterclaims weigh strongly in favor of instituting the present IPR. The circumstances herein are similar to numerous other recent examples where discretionary denial was inappropriate since publication of the Workload Memo.

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WHEREFORE, for all the reasons set forth herein, Petitioner respectfully requests that the Director deny Patent Owner's request for discretionary denial.

Date: July 11, 2025

By: /Chad L. Thorson/

Chad L. Thorson
Reg. No. 55,675
Burr & Forman LLP
Bank of America Plaza
101 South Tryon Street, Suite 2610
Charlotte, NC 28280
Tel: (704) 347-6477
Fax: (704) 444-9133
Email: cthorson@burr.com

CERTIFICATE OF LENGTH

Petitioner certifies that the word count in this Opposition to Patent Owner's Request for Discretionary Denial is 3,925 words, as counted by the word-processing program (Microsoft Word for Office 365) used to generate this Opposition. This Opposition is in compliance with the applicable word limit set in 37 C.F.R. § 42.24 and the Workload Memo.

Date: July 11, 2025

By: /Chad L. Thorson/

Chad L. Thorson
Reg. No. 55,675
Burr & Forman LLP
Bank of America Plaza
101 South Tryon Street, Suite 2610
Charlotte, NC 28280
Tel: (704) 347-6477
Fax: (704) 444-9133
Email: cthorson@burr.com

CERTIFICATE OF SERVICE

The undersigned certifies that a complete copy of this Opposition to Patent Owner's Request for Discretionary Denial and Exhibits 1009 and 1010 filed together with this Opposition were served in their entirety upon the following counsel of record via Electronic Mail.

John T. McKee johnmckee@quinnemanuel.com

Brian Saunders briansaunders@quinnemanuel.com

Alexander Rudis alexanderrudis@quinnemanuel.com

Jeffrey Gerchick jeffgerchick@quinnemanuel.com

Date: July 11, 2025

By: /Chad L. Thorson/

Chad L. Thorson
Reg. No. 55,675
Burr & Forman LLP
Bank of America Plaza
101 South Tryon Street, Suite 2610
Charlotte, NC 28280
Tel: (704) 347-6477
Fax: (704) 444-9133
Email: cthorson@burr.com