

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS,
T-MOBILE USA, INC. T-MOBILE US, INC.
AND AT&T MOBILITY, LLC

Petitioners,

v.

ASPEN NETWORKS, INC.,

Patent Owner.

Case No. IPR2025-00008

U.S. Patent No. 8,009,554

PATENT OWNER'S PRELIMINARY RESPONSE

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EXHIBIT LIST

Exhibit No.	Description
2001	Declaration of Izhak Rubin, Ph.D.
2002	AT&T Mobility, LLC, Cellco Partnership d/b/a Verizon Wireless, T-Mobile US, Inc., and T-Mobile USA, Inc.’s Preliminary Proposed Claim Constructions and Extrinsic Evidence, dated January 9, 2025. <i>Aspen Networks, Inc. v. AT&T Mobility, LLC et. al.</i> , Case No. 2:23-cv-00476-RWS-RSP
2003	DocketNavigator Statistics – Motion Success, accessed on December 27, 2024
2004	LegalMetric Nationwide Report, Stay Pending Inter Partes Review in Patent Cases, August 2012 - October 2024
2005	Judicial Caseload Profile, September 2024
2006	Excerpts from AT&T Mobility, LLC, Cellco Partnership d/b/a Verizon Wireless, T-Mobile US, Inc., and T-Mobile USA, Inc.’s P.R. 3-3 Invalidity Contentions, dated May 29, 2024. <i>Aspen Networks, Inc. v. AT&T Mobility, LLC et. al.</i> , Case No. 2:23-cv-00476-RWS-RSP

I. INTRODUCTION

Pursuant to 35 U.S.C. § 323 and 37 C.F.R. § 42.207, Patent Owner Aspen Networks, Inc. (“Aspen”) submits this Preliminary Response to Cellco Partnership d/b/a Verizon Wireless, T-Mobile USA, Inc., T-Mobile US, Inc., and AT&T Mobility, LLC’s, (collectively, “Petitioners”) Petition for *Inter Partes* Review of U.S. Patent No. 8,009,554 (“the ’554 Patent”).

The Petition largely ignores one of the key limitations that led to allowance of the challenged patent during prosecution. While other deficiencies exist, this foundational error applies to all challenged claims, and thus Patent Owner submits that the Board should deny institution on this basis alone.

During prosecution, various Office Actions were provided and responded to, and in the final response, the Examiner allowed claims based on the following limitation included in all independent Claims:

“...the SIP signaling sequence of the transmission is maintained after said switching from the first network path to the one of a plurality of alternative network paths” (Petition Ref. 1.6).

See EX1002, 148-150; *see also* EX1001, Claim 1 (and similar limitations in independent Claims 8, 15, 22).

The patent claims in the '554 Patent are directed to additional subject matter and patentability relates to multiple claimed features; however, a Petition that ignores the significance of this limitation that led to allowance should not be instituted. Doing so wastes Patent Office and practitioner resources.

The Petition takes two positions with respect to this limitation (1.6). One is based on the *Tagg* reference (Ground 1) and the other is based on the *Kottilingal* reference (Ground 2). Tellingly, both Ground 1 and Ground 2 rely on obviousness rather than anticipation, but then Petitioners gloss over the deficiencies in the references and attempt an end-around to avoid the rigorous standard required to show inherency under the guise of “obviousness.”

The Petitioners' first argument (Ground 1) asks the Board to ignore the “SIP Sequence” limitation entirely. The cited reference, *Tagg*, includes no discussion of a SIP sequence, much less maintaining a SIP sequence as set forth in the claims. Indeed, a word search of this reference provides no hits for the terms “SIP signaling sequence”, “SIP sequence”, “CSEQ”, or other similar terms. A review of the full reference in context does not supplement this deficiency; rather, the reference does not include any discussion relating to SIP sequencing. The supporting declaration does not address or correct for these deficiencies in the cited references, and instead, Petitioners simply ask the Board to overlook them.

Petitioners’ second argument (Ground 2) discusses SIP sequencing tangentially; however, the disclosure in that reference teaches a fundamentally different process. Specifically, Ground 2 of the Petition relies on a “SPAWN” messaging process in *Kottilingal*, and heavily relies on Fig. 7 to suggest that the SIP sequence number is maintained.

```

SPAWN SIP:BOB@BILOXI.COM SIP/2.0
VIA: SIP/2.0/UDP PC33.ATLANTA2.COM;BRANCH=ADFS
MAX-FORWARDS: 70
TO: BOB <SIP:BOB@BILOXI.COM>
FROM: ALICE <SIP:ALICE@ATLANTA2.COM>;TAG=876767776
CALL-ID: D7878-0-A2@PC33.ATLANTA2.COM
CSEQ: 314160 SPAWN
CONTACT: SIP:ALICE@PC33.ATLANTA2.COM.
CONTENT-TYPE: APPLICATION/SDP
CONTENT-LENGTH: 142

MASTER VIA: PC33.ATLANTA1.COM;BRANCH=Z9HG4BK776ASDHDS
MASTER TO: BOB <SIP:BOB@BILOXI.COM>
MASTER FROM: ALICE <SIP:ALICE@ATLANTA1.COM>;TAG=1928301774
MASTER CALL-ID: A84B4C76E66710@PC33.ATLANTA1.COM
MASTER CSEQ: 314159 INVITE
MASTER CONTACT: <SIP:ALICE@PC33.ATLANTA.COM>
  
```

} SO CALLEE CAN
IDENTIFY WITH
FIRST SESSION

SPAWN MESSAGE

FIG. 7

However, *Kottilingal* makes clear that this “SPAWN MESSAGE” is sent **before** any switching occurs. Indeed, as discussed below, this message is sent via an existing network connection (not the new, switched to, network connection) as a preceding step that may allow network switching to occur. Thus, when viewed in context, the “CSEQ” numbers in *Kottilingal* Fig. 7 are not directed to the same feature set forth in the claims, e.g., the SPAWN MESSAGE numbers do not show that “the SIP

signaling sequence of the transmission is maintained after said switching.” *See* EX1001, Claim 1. The Petition never explains this discrepancy.

In fact, *Kottilingal* goes further and provides an indication in Fig. 14 that the SIP sequence after switching will be **different**, not maintained.

```
SWITCH SIP:BOB@BILOXI.COM SIP/2.0
VIA: SIP/2.0/UDP PC33.ATLANTA2.COM;BRANCH=ADFD SGFSS
MAX-FORWARDS: 70
TO: BOB <SIP:BOB@BILOXI.COM>
FROM: ALICE <SIP:ALICE@ATLANTA2.COM>;TAG=876198
CALL-ID: D7878-0-A2@PC33.ATLANTA2.COM
CSEQ: 31401 SWITCH
CONTACT: SIP:ALICE@PC33.ATLANTA2.COM.
CONTENT-TYPE: APPLICATION/SDP
CONTENT-LENGTH: 142

SPAWN-ID: ASD14KLJLDK1567E409870

SWITCH-FROM: ALICE <SIP:ALICE@ATLANTA1.COM>
SPAWN-TO: ALICE <SIP:ALICE@ATLANTA2.COM>

MEDIA FLOW HANDOFF CONTROL PACKET
```

FIG. 14

In short, the only disclosure in the cited art directed to the “SIP signaling sequence” limitation (1.6) teaches a different process, and at best it teaches changing the SIP sequence after a network switch, contrary to the methods of the challenged claims. EX1006, Fig. 14.

Separate from the Petition’s deficient unpatentability arguments, the Board should deny institution because the invalidity issues presented herein will be argued, tried, and decided by a judge and jury long before this proceeding could reach a final written decision. Petitioners filed this Petition just before the statutory bar date, and

long after the related cases pending in the Eastern District of Texas had progressed in earnest. The Board should exercise its discretion under 35 U.S.C. § 314 and deny institution for this additional reason and for the reasons discussed below.

II. OVERVIEW OF THE TECHNOLOGY, THE '554 PATENT, AND THE PRIOR ART

A. Technical Background

The '554 Patent, focuses on an improved process for switching between network connections. EX2001, ¶ 11. At the time of the invention,¹ this switching process, particularly for voice over internet protocols (“VoIP”) calls was challenging, leading to multiple dropped calls and a frustrated user experience. *Id.*

Multiple factors complicated this process, including conflicting standards and protocols. *Id.* For example, at this time, traditional telephone lines still provided the

¹ Solely for purposes of this proceeding, Patent Owner will refer to the March 13, 2008 priority date, the date of the filing of US Application No. 61/036377, as the date of the invention. Patent Owner contends that the date of invention is earlier than this priority date, however, because the claimed invention was conceived at least as early as October 2006 and reduced to practice in August 2007, but such earlier invention date does not affect the availability of Petitioners' cited references as prior art, and thus has no substantive impact in this proceeding.

dominant form of voice-to-voice communication, which had a set protocol. *Id.* ¶ 12. Cellular communication had also become popular and pervasive, utilizing its own data transfer process. *Id.* ¶¶ 13-14. On top of these more standard forms of data transfer for audio data, the internet and local area networks used multiple different protocols. *Id.*

The invention of the '554 Patent was developed against this backdrop. At that time, it was unclear which form of data communication and protocols would be appropriate for audio and video data. *Id.* ¶ 15. Adding to this complexity was the determination as to what process should govern the switching between various network paths, particularly when further data transitions took place, such as transitions involving address and/or port translations, i.e., a NAT and/or a PAT. *Id.*

The inventors of the '554 Patent, however, ignored the more standard protocols for audio data, e.g., telephone and cellular standards, and instead focused on internet technology (VoIP). *Id.* ¶ 16. The inventors established the proper flow process and protocol structure that are necessary for switching between network paths, while maintaining a stable call connection and often improving call quality. *Id.* For example, the '554 Patent focuses on protocols that operate on top of the Internet Protocols such as Real Time Protocols (RTP) and Session Initiation Protocols (SIP). *Id.*

Even if a narrow view of the invention were to be taken (which it should not), and the inventive field was limited to VoIP calls utilizing RTP and SIP, the industry was still struggling to find an appropriate solution. *Id.* ¶ 11. Indeed, as demonstrated by the references cited in the Petition, multiple different approaches existed with each having its own advantages and disadvantages, none of which disclose the claimed subject matter. Rather, the inventors were the first to recognize the right combination of features to address the underlying issues, in part, by recognizing the importance of SIP and SIP sequencing in maintaining a call transmission when switched between network paths.

B. The '554 Patent

Fig. 9 in the '554 Patent depicts an embodiment of the invention.

Fig 9 A QoS Gateway Embodiment of Invention

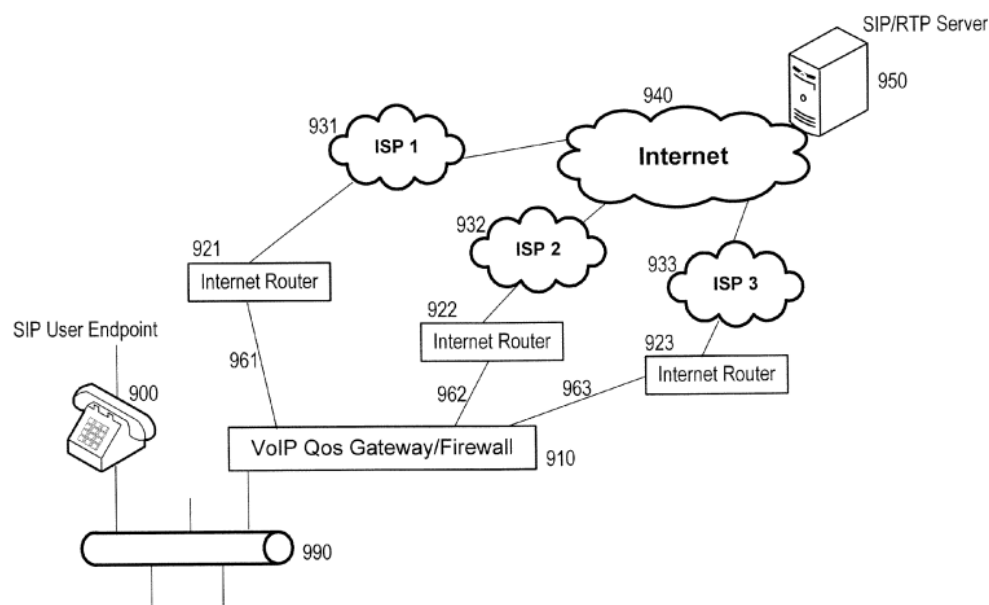


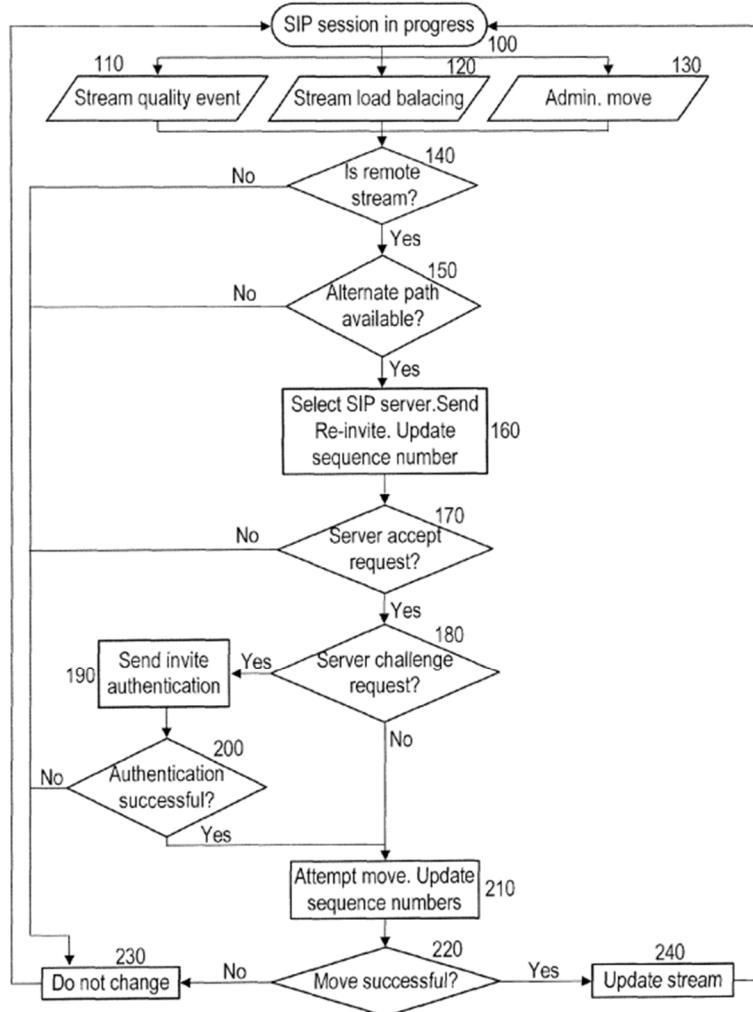
Figure 9 features a multi-link quality of service (QoS) gateway 910 that has 3 logical network interfaces 961, 962, and 963. EX1001, 5:46-61; FIG. 9. In this configuration, three routers, denoted as are 921, 922 and 923, are attached on the user local area network 990, serving to connect the user to the public Internet 940. *Id.* Network interfaces 961, 962 and 963 correspond to globally routable public IP addresses belonging to the three access Internet Service Providers shown in FIG. 9, denoted as 931, 932 and 933, respectively. *Id.* A SIP user endpoint 900 is shown communicating with a SIP/RTP server 950. *Id.* In this embodiment, three alternative paths, applicable for attaining preferred quality of service, over the non-mobile domain are shown:

Path 1: 900, 910, 961, 921, 931, 940, 950
Path 2: 900, 910, 962, 922, 932, 940, 950
Path 3: 900, 910, 963, 923, 933, 940, 950

Id. at 6:37-41.

The embodiments disclosed enable the proper switching of a call's network path while a SIP/RTP session is in progress. In particular, they teach the use of post-switching consistent SIP packet sequence numbers, as depicted in FIG.4, step 210:

Fig 4 Move SIP Control Flow and RTP Stream. The Flow Chart



Id. at 7:1-4; FIG. 4. The flowchart depicted in FIG. 4 is generally described in the Flow Chart Description table. *Id.* at 4:45-5:37. Importantly, after an alternative path is determined to be available at 150, the system selects a SIP server, sends re-invite, and updates the sequence number at 160. *Id.* The sequence number is then updated again after the attempted move at 210. *Id.* Thus, as captured by the independent claims of the '554 Patent, “[t]he SIP signaling sequence of the transmission is

maintained after said switching from the first network path to the one of a plurality of alternative network paths” during this step. *Id.* (emphasis added).

1. Challenged Claims

The '554 Patent has 28 claims, with 4 independent claims. Claim 1 is reproduced below:

1. A method of enhancing the reliability of a transmission from a source to a destination in a communications network using a network protocol that operates on top of the Internet Protocol (IP), the method comprising:

transmitting data between a source and destination over a first network path made up of one or more network links where at least one of the network links is to a local area network that is remote from the transmission source; and

switching the transmission from the first network path to one of a plurality of alternative network paths;

wherein said transmission is not disrupted as a result of said switch to the one of a plurality of alternative network paths, said transmission contains audio or video data and at least one Network Address Translation (NAT) is performed on said transmission;

said transmission uses the Real Time Protocol (RTP);

said transmission uses the Session Initiation Protocol (SIP); and

the SIP signaling sequence of the transmission is maintained after said switching from the first network path to the one of a plurality of alternative network paths.

EX1001, Claim 1 (emphasis added).

Although the other issued independent claims (Claims 8, 15, 22) differ, they all include similar language to the language bolded above—the SIP signaling sequence limitation, identified as limitation 1.6 in the Petition.

2. Prosecution History

The '554 Patent stems from U.S. Application No. 12/137,258, filed on June 11, 2008, which claims priority to U.S. Provisional Application No. 61/036377, filed on March 13, 2008. During prosecution, the Examiner issued various Office Actions, and the Applicant responded with arguments and, at times, limited amendments.

During prosecution, on April 14, 2010, the Examiner issued a Non-Final Office Action for U.S. Application No. 12/137,258 rejecting Claims 1-3, 5-7, 9-14, 16-18, and 20-21 under 35 U.S.C. § 102 as being anticipated by US 2006/0193295 to White et al. (“White”) and Claims 4, 8, 15, and 19 under 35 U.S.C. § 103 as being unpatentable over White in view of US 2003/0156559 to Yi et al. (“Yi”). EX1002, 99-104. On September 14, 2010, Applicant filed a response to the Non-Final Office Action amending Claims 1-21 and adding Claims 22-50. *Id.* at 112-117, 126-134.

On November 26, 2010, the Examiner issued a Final Office Action rejecting Claims 1-3, 11-14, 22-26, 34-38, and 46-50 under 35 U.S.C. § 103 as being unpatentable over White in view of US 2007/0253413 to Citron et al. (“Citron”) and Claims 4-7, 9-10, 15-18, 20-21, 27-30, 32-33, 39-42, and 44-45 under 35 U.S.C. § 103 as being unpatentable over White in view of Citron and Yi. *Id.* at 135-140. With respect to Claims 4, 15, 27, and 39, the Examiner admitted that White fails to disclose maintaining SIP sequencing after a switchover but alleged this deficiency was cured by Yi. *Id.* at 138.

On January 11, 2011, Applicant filed a response to the Final Office Action amending dependent Claims 4, 15, 27, and 39, which were directed to SIP signaling sequence, to incorporate the limitations of independent Claims 1-3, 11-14, 22-26, and 34-38, respectively. *Id.* at 147-150, 155-160. This amendment allowed several of these pending claims, including Claim 4, to include all of the originally proposed limitations for these claims in independent form. Applicant further argued that Yi failed to disclose maintaining a SIP signaling sequence after switching from a first network path to one of a plurality of alternative networks paths and, as such, the Claims were allowable. *Id.* at 147-150. Following this amendment and argument, a Notice of Allowance was issued on February 4, 2011, and the ’554 Patent issued on August 30, 2011. *Id.* at 162, 221.

Critically, the claims were not allowed until the independent claims included limitation 1.6, requiring that “[t]he SIP signaling sequence of the transmission is maintained after said switching from the first network path to the one of a plurality of alternative network paths.” EX1001, Claim 1.

C. The Petition’s Cited References

The Petition cites to various references to demonstrate the background technology and its grounds of purported unpatentability. Each of the three references relied upon describes a different process for allowing a call to utilize multiple networks. These references focus on a different process, and different elements associated with the data transfer. Rather than support the Petition’s claims of invalidity, the disclosed processes in these references demonstrate the complexity associated with allowing a VoIP call to switch between networks.

1. Tagg Summary

Ground 1 of the Petition relies upon US 2005/0286466 to *Tagg et al.* (“*Tagg*”) for a single-reference obviousness position against all of the challenged claims. Petition at 14.

Tagg describes a Cooperative Tunneling Agent (CTA) that can be utilized on various devices to allow for an improved and standardized communication “pipe thru to the Internet.” EX1005, ¶ [0079]. The *Tagg* CTA provides each member a unique identifier and allows communications between members efficiently and

securely. *Id.* *Tagg* goes on to describe how this CTA provides users a broad range of functionality, which it alleges are advantageous to users and service providers. *Id.* ¶¶ [0079] – [0092]. Relevant here, *Tagg* describes how the CTA allows for a handoff process for passing users between networks, which is the basis of one of the Petition’s invalidity positions. *Id.* ¶¶ [0277] – [0285]; Petition at 39-41.

The relevant *Tagg* handoff processes focus on a duplicative system. In particular, the *Tagg* “make-before-break” handoff process sends duplicative packets via multiple networks simultaneously in order to switch networks. The use of this redundancy across various networks allows a link to be “made” and confirmed, before it is broken; thus, according to *Tagg*, allowing for an improved and seamless handover. *See* EX1005, ¶ [0095] (“Another significant advantage of a packet based system is that the packets may follow different routing paths providing for a high degree of redundancy and therefore reliability. For example, a packet may be forwarded at the radio layer via the Bluetooth, Wi-Fi and UMTS link simultaneously during handoff/over in the invented system.”)

In particular, *Tagg* defines the “make-before-break” process as one “where packet streams are sent via two paths during handoff/over.” *Id.* ¶ [0285]. *Tagg* further describes this process, stating: “A duplicate audio path to/from the proxy via another IP route is created when hand-off is looking likely, then when hand-off is confirmed, the handset switches over to the new audio-path and disconnects the old

one. This does not require any re-invites or conferencing as the proxy is the client as far as the server is concerned and so never changes its IP address.” *Id.* ¶ [0296].

Notably, as discussed in more detail below, *Tagg* does not discuss SIP sequencing at all, much less as part of any network switching.

2. *Kottilingal* Summary

Petitioner’s Ground 2 relies on two references. The base reference is U.S. Patent No. 8,467,377 to *Kottilingal* (“*Kottilingal*”).

Kottilingal describes a mobile communication device (for example, a cellular telephone) that has one air interface for wireless communication with a wireless LAN (Local Area Network) and another air interface for cellular telephone communication with a cellular telephone network. EX1006, 1:53-61. By using these two separate air interfaces, the *Kottilingal* device purportedly increases quality of service in mobile devices. *Id.* at Title, Abstract.

The *Kottilingal* mobile communication device discusses using VoIP, and in particular, transmitting data VoIP packets of a media stream to a target communication device (for example, to another IP telephone that is coupled to the Internet at a remote location). *Id.* at 1:62-2:5. The VoIP packets are communicated by using RTP over UDP (User Datagram Protocol) over IP (Internet Protocol). *Id.*

Relevant here, *Kottilingal* discusses that it may be desired to continue the call by using the other air interface of the mobile communications device. *Id.* at 2:6-41.

To do so, PARTY A's mobile communication device sends a SPAWN SIP message to PARTY B's target communication device. *Id.* The mobile communication device may then establish a second session across the other air interface. *Id.* The second session is initialized and both the first and second sessions are active VoIP sessions. *Id.* Thereafter, the mobile communication device may stop transmitting VoIP packets for the media stream in the first session and may begin transmitting subsequent VoIP packets for the media stream in the second session. *Id.* at 2:42-45.

3. *Politis* Summary

The second cited reference in Ground 2 is a secondary reference, *Politis*, which is a conference paper published April 23, 2003, entitled: "Multilayer Mobility Management for All-IP Networks: Pure SIP vs. Hybrid SIP/Mobile IP" ("Politis"). *Kottilingal* is used as the base reference, with *Politis* cited for limitation 1.3 directed Network Address Translation (NAT).

Politis discloses two mobility management architectures based on SIP and Mobile IP Protocols. EX1007, 1. The two approaches, referred to as SIP-based and hybrid SIP/Mobile IP approaches, provide mobility in two different layers: the application layer and the network layer. *Id.* The first approach utilizes SIP signaling to support micromobility. *Id.* at 2. The second approach utilizes SIP in conjunction with Mobile IP functionality to support inter-domain mobility. *Id.* at 3. The second

approach additionally utilizes NAT/STUN functionalities, which increase the overall signaling load. *Id.*

4. References Not Relied Upon by Petitioners

Petitioners include discussion of various other references but fail to rely on any of them to form the basis of either Ground of alleged unpatentability. Thus, Aspen declines to address and the Board should ignore these extraneous references (EX1008 - EX1014).

III. PERSON OF ORDINARY SKILL AND CLAIM CONSTRUCTION

The Petition proposes a level of skill in the art that is ambiguous and inappropriate. Petition at 10-11. Patent Owner and its expert, Dr. Rubin, agree with the educational level and certain of the experiential level proposed by Petitioners – namely, Patent Owner agrees that a person of ordinary skill in the art (POSITA) would have had a Bachelor’s degree in electrical engineering or computer science and two years of experience; a Master’s degree in electrical engineering or computer science, but having only one year of experience; or no formal education but experience in network service plan provisioning systems of at least four years. EX1003, ¶ 37; EX2001, ¶ 47.

However, the suggestion that a POSITA in the March 2008 timeframe would have “been familiar with designing rules for implementing policies for service plans for use of an access network and provisioning those rules to network elements for

policy enforcement” is both ambiguous and unduly restrictive. For one, it is not clear what “designing rules for implementing policies for service plans for use of an access network” means. EX2001, ¶ 48. Second, it is not clear why Petitioners argue that such experience is necessarily required for a POSITA at the time of the invention. Aspen submits that the educational and experience level above relating to “network service plan provisioning systems” is more than sufficient for establishing the appropriate level of skill in the art for purposes of this proceeding. Nevertheless, to the extent Petitioners’ proposed level of skill can be understood, Dr. Rubin was at least a POSITA in the field of technology of the ’554 Patent at the time of the invention and is qualified to offer opinions on the state of the art and what POSITAs would have known and understood in the March 2008 timeframe. *Id.* ¶ 49.

Claim terms in IPR are construed according to their “ordinary and customary meaning” to those of skill in the art. 37 C.F.R. § 42.100(b). Patent Owner submits that, for the purposes of this preliminary response, no claim term requires express construction. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d

1013, 1017 (Fed. Cir. 2017); Ex.1003, ¶ 46.² Patent owner reserves the right to propose a construction in the event the Board institutes an IPR based on the Petition.

IV. PETITIONERS' ARGUMENTS FAIL TO ESTABLISH THE UNPATENTABILITY OF THE CHALLENGED CLAIMS

All of the challenged claims require maintaining a transmission's SIP signaling sequence after switching network paths. None of the references relied upon by Petitioners, alone or in combination, teaches this limitation. Ground 1 of the Petition alleges *Tagg* "discloses or suggests" this feature. *See* Petition at 39-41. However, as discussed below, *Tagg* contains no express teachings of a SIP signaling sequence, let alone any discussion of maintaining a SIP signaling sequence as part of a network switching. EX2001, ¶ 56. Any handoff taught by *Tagg* does not

² Notably, though the same claim construction standard is applied in both the PTAB and district court, Petitioners have nevertheless identified a number of terms that allegedly require construction by the district court. EX2002. Here, however, the Petition states "Petitioners propose that each claim term in the Challenged Claims be given its plain and ordinary meaning in this proceeding, and that no specific construction of any claim term is required because the prior art relied on in this Petition meets each of the claim terms under any reasonable construction." Petition at 9.

include, teach, or suggest this feature and, for these reasons, institution should be denied on this Ground.

Ground 2 of the Petition similarly asserts that *Kottilingal* discloses or suggests the SIP signaling sequence limitation. Petition at 75-77. However, Petitioner's argument rests on a flawed reading of *Kottilingal*. EX2001, ¶ 57. The SPAWN SIP message in *Kottilingal* is sent prior to any network switching, not after, and more importantly, the CSEQ numbers before the handoff are different from the CSEQ numbers after the handoff, indicating the SIP signaling sequence is indeed not maintained as required by the claims.

A. Ground 1 Fails Because *Tagg* Fails to Include Any Discussion of At Least One Limitation.

Ground 1 in the Petition relies solely upon the *Tagg* reference. *See* Petition at 14. In this regard, the Petition primarily relies upon the “handoff” feature in *Tagg*, and the use of the “make-before-break” processes associated with this feature to make the case for unpatentability. *See, e.g.*, Petition at 19. However, that feature and the *Tagg* process generally fail to teach or suggest the claimed processes set forth in the challenged patent, the '554 Patent.³

³ For the purposes of this preliminary response, it is not necessary to discuss each difference between *Tagg* and the claimed subject matter. Rather, this response

1. The *Tagg* Reference Does Not Include Any Discussion of a “SIP Signaling Sequence” or “CSeq”

Tagg does not include any discussion for SIP sequencing. EX2001, ¶ 60. At no point in the *Tagg* reference is there any discussion of SIP sequencing, CSeq, SIP numbering, etc. *See generally*, EX1005. Indeed, a word search of that reference confirms this omission, and a reading of the reference (and the Petition) further demonstrates that this feature is not discussed. No other references are cited for this limitation. *See* Petition at 39-41.

It is troubling that Petitioners do not acknowledge this deficiency, leaving Patent Owner and the Board to guess what their corresponding position is. Thus, the basis for the Petition’s position that this limitation is rendered obvious by *Tagg* is entirely unclear, and the Petitioner’s Expert does not remedy this omission with any analysis. This failure alone is fatal to Ground 1. *See Uber Techs., Inc. v. LBT IP II LLC*, No. IPR2022-00879, 2022 WL 17490219, at *7 (PTAB. Dec. 7, 2022) (finding Petitioner’s failure to address an independent claim limitation “fatal” to its ground of unpatentability).

focuses on *Tagg*’s failure to teach or suggest “the SIP signaling sequence of the transmission is maintained after said switching from the first network path to the one of a plurality of alternative network paths” as set forth in the independent claims.

2. The Petition Improperly Attempts to Ignore the Deficiencies in the *Tagg* Reference

Despite the Petition's failure to clearly present a teaching for this limitation, Patent Owner will address what appears to be Petitioners' position. For this limitation 1.6, the Petition relies almost exclusively on an annotated version of Fig. 15 in *Tagg* and a general statement that a POSITA "would have understood" that *Tagg* disclosed SIP sequencing. Petition at 39-41.

Figure 15 illustrates the embodiment in *Tagg* that Petitioners rely upon. The annotated version from the Petition is reproduced below:

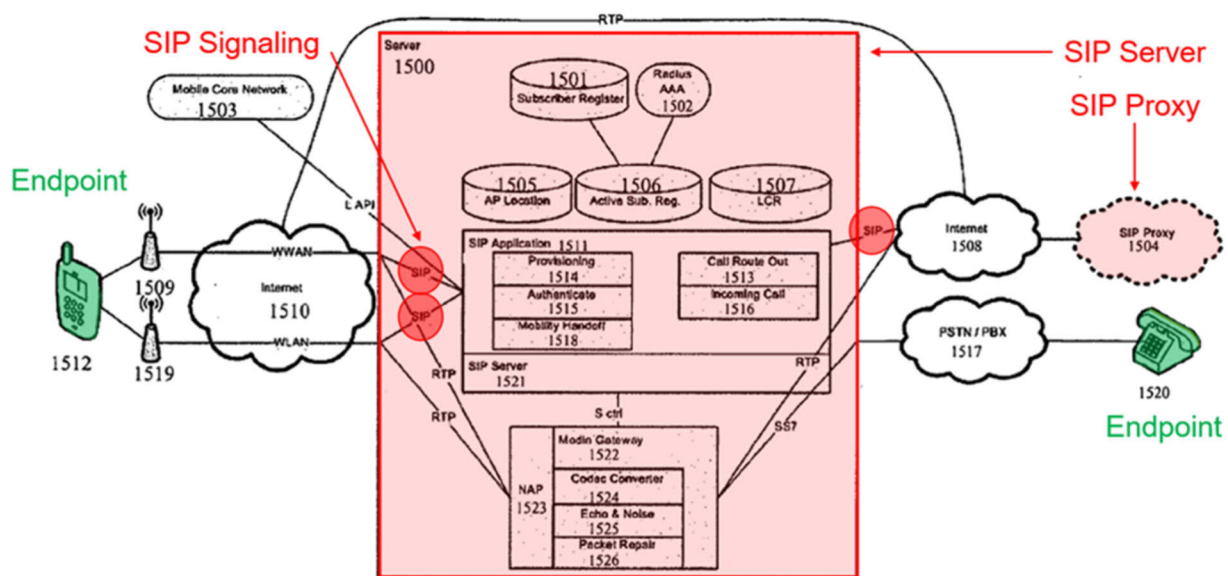


Figure 15

Petition at 40; EX1005, FIG. 15 (annotated by Petitioners). Petitioners argue that this diagram somehow shows that "the same SIP signaling sequence is preserved to and through a SIP server or SIP proxy regardless of switching from a WWAN to

WLAN network or vice versa.” Petition at 40. Petitioners’ expert parrots this same statement. Ex. 1003, ¶¶ 117-124.

In contrast to the Petition’s assertion, Fig. 15 simply comports with the duplicative hand-off process, which is the focus of *Tagg*. Rather than focusing on SIP or SIP sequencing, *Tagg* focuses on using a redundant process whereby data is sent in duplicate—one set sent via a LAN network and the other set sent via a WAN network. EX1005, ¶ [0324]; *see also* EX2001, ¶ 63. In particular, *Tagg* accomplishes its handoff by virtue of its make-before-break feature, whereby a duplicate audio path to/from the proxy via another IP route is created when hand-off “is looking likely.” EX1005, ¶ [0296]. “When the hand-off is confirmed, the handset switches over to the new audio-path and disconnects the old one. Importantly, this does not require any re-invites or conferencing as the proxy is the client as far as the server is concerned and so it never changes its IP address.” *Id.*

Any assertion that Fig. 15 (or *Tagg* generally) somehow illustrates maintaining a SIP signaling sequence during handoff is pure conjecture. *See* Petition at 40. Indeed, while the Petition focuses on the discussion of SIP and RTP in *Tagg*, the cited portions are tangential to the handoff process described. For example, *Tagg* generally describes that Session Initiation Protocol (SIP) and Real-time Transport Protocol (RTP) protocols can be used and these protocols should be optimized for wireless transport. EX1005, ¶ [0100]. *Tagg* further states that, in its disclosed

system, the protocol is encoded the same way regardless of which radio connection method is used. *Id.* ¶ [0129]. In this manner, Tagg alleges, the handoff in its system can be implemented quickly as no re-configuration is required or the packets can be simultaneously sent over both radio connections during the handoff to provide seamless handoff. *Id.*

The “handover” procedure discussed in *Tagg* does not rely on SIP sequencing. EX2001, ¶ 65. Again, *Tagg* purportedly accomplishes seamless handoff by duplicating an audio path to/from a proxy via another IP route when hand-off “is looking likely.” EX1005, ¶ [0296]. *Tagg* describes this duplicative process multiple times, none of which discusses SIP sequencing. *See, e.g., Id.*, ¶¶ [0296], [0324].

Thus, Tagg fails to disclose or suggest maintaining a transmission’s SIP signaling sequence after switching from a first network path to the one of a plurality of alternative network paths.

3. Petitioners’ Expert Fails to “Fill in the Gap” in the Petition’s Deficient “SIP Signaling Sequencing” Analysis

Dr. Daniel Van Der Weide’s Declaration (EX1003) similarly fails to explain how maintaining a SIP signaling sequence during handoff is taught or suggested by *Tagg*. *See* EX1003, ¶¶ 117-124.

Rather than substantiate the assertion in the Petition that *Tagg* discloses “SIP signaling sequencing”, Dr. Van Der Weide parrots it. Below is a comparison of the

assertion in the Petition compared with Dr. Van Der Weide's Declaration. As noted, Dr. Van Der Weide's declaration often copies verbatim language from the Petition for this analysis:

Petition	Dr. Van Der Weide's Declaration, EX1003
<u>Petition at 40</u> “As seen in the call handling diagram below, the same SIP signaling sequence is preserved to and through a SIP server or SIP proxy regardless of switching from a WWAN to WLAN network or vice versa.” (Next line shows an annotated Fig. 15, which is reproduced above in this Response).	<u>EX1003, ¶ 121</u> “As seen in the call handling diagram below, the same SIP signaling sequence is preserved to and through a SIP server or SIP proxy regardless of its switching from a WWAN to WLAN network or vice versa.” (Next line shows an annotated Fig. 15, which is reproduced above in this Response),
<u>Petition at 40</u> “Indeed, ‘[b]oth WWAN and WLAN connections may be made simultaneously providing multiple IP	<u>EX1003, ¶ 122</u> “Indeed, ‘[b]oth WWAN and WLAN connections may be made simultaneously providing multiple IP

Petition	Dr. Van Der Weide’s Declaration, EX1003
connectivity paths to the same point.’ <i>Id.</i> , [0246].”	connectivity paths to the same point.’ <i>EX1005</i> , ¶ 0246.”
<u>Petition at 40</u> “POSITAs would have understood that Tagg’s SIP protocol uniformity in directionality teaches that a ‘SIP signaling sequence...is maintained’ regardless of switching between the WWAN and WLAN networks because this allows the user to ‘appear[] to the rest of the world as if they are not moving between networks’ even when ‘flip[ping] back and forth freely’ between WWAN and WLAN networks (Tagg’s cases 1 and 6). <i>Id.</i>, Fig. 15, [0247], [0320]; <i>VDW Decl.</i>, ¶¶118-23.”	<u>EX1003, ¶ 123</u> “A POSITA would have understood that Tagg’s SIP protocol uniformity in directionality teaches that a ‘SIP signaling sequence...is maintained’ regardless of switching between the WWAN and WLAN networks because this allows the user to ‘appear[] to the rest of the world as if they are not moving between networks’ even when ‘flip[ping] back and forth freely’ between WWAN and WLAN networks (Tagg’s cases 1 and 6). <i>EX1005</i>, Fig. 15, ¶¶ [0247], [0320].”

Notably, all three of the above passages from the Petition quoted above cite directly to *Tagg* in support of the statements just as the Van Der Weide Declaration does.

Said another way, the entirety of Dr. Van Der Weide's (and Petitioners') position on this issue is limited to the following assertion:

A POSITA would have understood that Tagg's SIP protocol uniformity in directionality teaches that a "SIP signaling sequence...is maintained" regardless of switching between the WWAN and WLAN networks because this allows the user to "appear[] to the rest of the world as if they are not moving between networks" even when "flip[ping] back and forth freely" between WWAN and WLAN networks (Tagg's cases 1 and 6). EX-1005, Fig. 15, ¶¶ 0247, 0320.

EX1003, ¶ 123; *see also*, Petition at 40. This barebones discussion is insufficient. For example, in other cases, the Board has held this type of analysis should be given little to no weight. *See Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15 (PTAB Aug. 24, 2022) (precedential). In *Xerox*, the Board found that the petitioner's expert declaration "merely repeat[ed], verbatim, the conclusory assertion for which it [was] offered to support," "[did] not cite to any additional supporting evidence or provide any technical reasoning to support [its] statement." *Id.* The *Xerox* the Board therefore found the expert declaration was "conclusory and unsupported, add[ing] little to the conclusory assertion for which it [was] offered to support, and [was] entitled to little weight." *Id.* (citing 37 C.F.R. § 42.65(a); *Upjohn Co. v. Mova Pharm. Corp.*, 225 F.3d 1306, 1311 (Fed. Cir. 2000); *Carella v. Starlight Archery & Pro Line Co.*, 804 F.2d 135, 138 (Fed. Cir. 1986)).

Similar to the one at issue in *Xerox*, Dr. Van Der Weide's declaration here "is particularly problematic" because the "expert testimony is offered not simply to provide a motivation to combine prior-art teachings, **but rather to supply a limitation missing from the prior art.**" *Xerox*, IPR2022-00624, Paper 9 at 16 (citing *KSR Int'l. Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007); *Arendi S.A.R.L. v. Apply, Inc.*, 832 F.3d 1355, 1361-62 (Fed. Cir. 2016)) (emphasis added).

Moreover, the examples, *i.e.*, cases, set forth in *Tagg* cited in support of this proposition fail to disclose or suggest maintaining a SIP signaling sequence during handoff. While it is true that cases 1 and 6 of *Tagg* contemplate handing off a voice call from WLAN to WWAN (case 1) and vice-versa (case 6), the text that is describing these cases includes no discussion that a SIP signaling sequence must be maintained. *See* EX1005, ¶ [0285]; *see also* EX2001, ¶ 71. *Tagg* teaches that seamless handoff for case 1 is achieved by either (1) rapidly switching the IP stream from the WLAN socket to the WWAN socket connection "break-before-make", or (2) copying the IP stream to two sockets and once end-to-end connectivity is proven stopping the stream to the WLAN socket "make-before-break". EX1005, ¶ [0290]. Case 6 is just the inverse. *Id.* ¶ [0320]. Neither these cases nor Figure 15 as described above disclose or suggest post-switching maintenance of a SIP signaling sequence during these handoffs.

If Petitioners' position is that these cases from *Tagg* inherently require maintaining a SIP signaling sequence during handoff, the Petition fails to sustain its burden of proving that the missing element (i.e., maintaining a SIP signaling sequence during handoff after said switching) "is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." *Rosco, Inc. v. Mirror Lite Co.*, 304 F.3d 1373, 1380 (Fed. Cir. 2002) (quoting *Cont'l Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991)); see also *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1295 (Fed. Cir. 2002) (quoting *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) ("Inherent anticipation requires that the missing descriptive material is 'necessarily present,' not merely probably or possibly present, in the prior art.")). Indeed, as described in Ground 2, the process disclosed in *Kottilingal* is an alternative to maintaining a SIP signaling sequence during handoff. Because the Petition fails to prove that this missing limitation is "necessarily present" in *Tagg*, and for the above identified reasons, institution on this Ground should be denied.

B. Ground 2 Relies on a Misreading of the Base Reference, *Kottilingal*, Which Teaches Away from the Claims

Petitioner’s Ground 2 relies on two references—*Kottilingal* as the base reference, and *Politis* as a secondary reference for limitation 1.3.⁴ For the “SIP signaling sequence” limitation 1.6, Petitioners rely on a misreading of *Kottilingal*. EX2001, ¶ 73. *Kottilingal* focuses on establishing **multiple SIP sessions** as a mechanism for addressing call quality issues. *Id.* ¶ 74. Rather than teaching maintaining the SIP signaling sequence, *Kottilingal* teaches a duplicative process that relies on separate data paths, separate air interfaces, and importantly separate SIP sessions to allow for fewer dropped calls and improved data transfer. *See* EX1006, 1:53 – 2:41. That process differs significantly from the claimed process of the ’554 Patent.

To attempt to overcome this deficiency, Petitioner points to the “SPAWN” message in Fig. 7. *See* Petition at 75 – 77. Petitioners state:

⁴ Similar to Ground 1, Patent Owner only addresses herein the Petition’s position with respect to the “SIP signaling sequence” limitation (1.6); however, Patent Owner notes that other differences exist between the cited references and challenged claims. Importantly, the Petition does not rely upon *Politis* for limitation 1.6, so treatment of that reference is unnecessary here.

For example, Kottilingal's Figure 7 discloses a CSEQ value placed at the same sequential position (green) in SIP messaging between an IP phone 2 to IP phone 9 (To→From→Call-ID→CSEQ parallels Master To→Master From→Master Call-ID→Master CSEQ):

```

SPAWN SIP:BOB@BILOXI.COM SIP/2.0
VIA: SIP/2.0/UDP PC33.ATLANTA2.COM;BRANCH=ADFS
MAX-FORWARDS: 70
TO: BOB <SIP:BOB@BILOXI.COM>
FROM: ALICE <SIP:ALICE@ATLANTA2.COM>;TAG=876767776
CALL-ID: D7878-0-A2@PC33.ATLANTA2.COM
CSEQ: 314160 SPAWN
CONTACT: SIP:ALICE@PC33.ATLANTA2.COM.
CONTENT-TYPE: APPLICATION/SDP
CONTENT-LENGTH: 142

MASTER VIA: PC33.ATLANTA1.COM;BRANCH=Z9HG4BK776ASDHDS
MASTER TO: BOB <SIP:BOB@BILOXI.COM>
MASTER FROM: ALICE <SIP:ALICE@ATLANTA1.COM>;TAG=1928301774
MASTER CALL-ID: A84B4C76E66710@PC33.ATLANTA1.COM
MASTER CSEQ: 314159 INVITE
MASTER CONTACT: <SIP:ALICE@PC33.ATLANTA.COM>
  
```

} SO CALLEE CAN IDENTIFY WITH FIRST SESSION

SPAWN MESSAGE

FIG. 7

Petition at 75-76 (annotations original in Petition). Petitioners then compare this image with the '554 Patent disclosures in columns 4 and 5 to conclude that *Kottilingal* teaches that the SIP signal sequence is maintained within the meaning of the claims.⁵

This limited analysis misreads and mischaracterizes the disclosure in *Kottilingal* for several reasons as described below. These deficiencies cannot be

⁵ Petitioners' expert analysis largely mirrors the petition, with neither the Petition nor its Expert meaningfully relying on any other portion of *Kottilingal* for this limitation. Petition at 75 – 77; EX1003, ¶¶ 230 – 233.

overcome, and the Board should not institute an IPR on Ground 2. *See Uber*, 2022 WL 17490219, at *7 (finding Petitioner’s failure to address an independent claim limitation “fatal” to its ground of Invalidity).

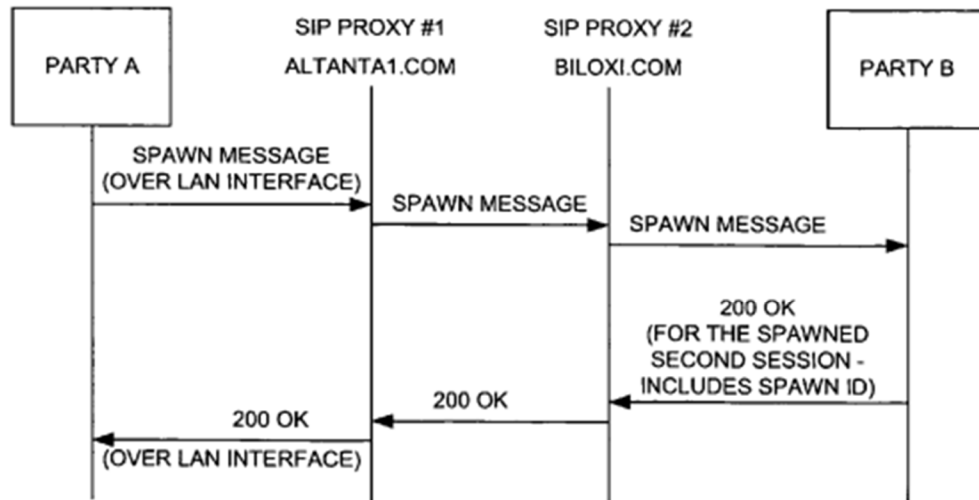
1. The “SPAWN” Message in *Kottilingal* Occurs Before Any Network Handoff/Over, Not After

First, the SPAWN message is not even relevant to the continued maintenance of a single SIP signaling sequence since it teaches establishing a complete separate session with its own distinct SIP signaling sequence, as discussed below. But even if considered, this SPAWN message cannot meet the claimed limitation. The challenged claims require that the SIP signaling sequence be maintained “**after** said switching from the first network path to the one of a plurality of alternative network paths.” EX1001, Claim 1 (emphasis added). The *Kottilingal* reference makes clear that the SPAWN message shown in Fig. 7 is sent **before** any switching occurs. For example, that reference states:

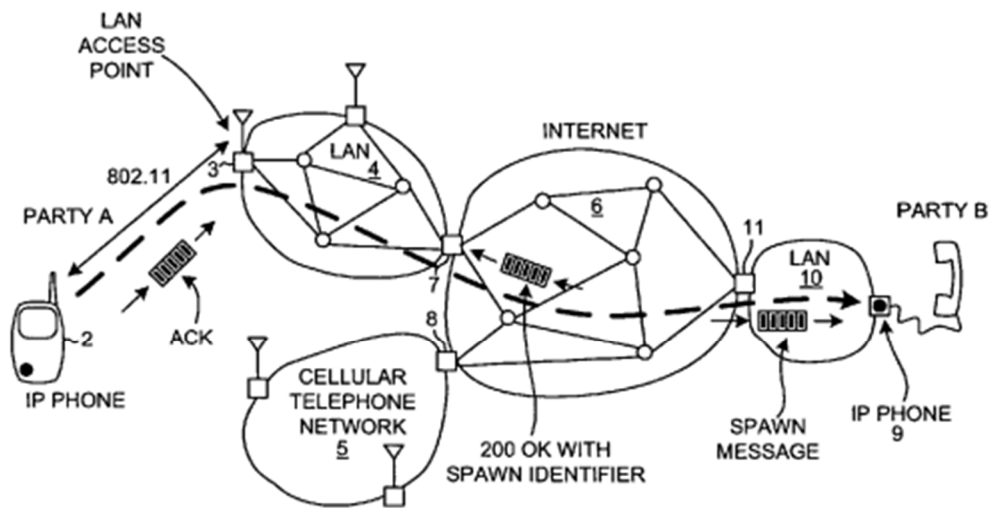
Once the threshold is reached, IP phone 2 determines that IP phone 2 should initialize a second SIP session using its long range cellular telephone transceiver. IP phone 2 initializes the second SIP session **by sending a novel SIP message called a SPAWN message from PARTY A to PARTY B in the first session.**

EX1006, 8:39-44 (emphasis added). The accompanying descriptions associated with Figs. 6-9 further demonstrate this sequencing. FIG. 8 of *Kottilingal* is a diagram illustrating the communication flow of the SPAWN SIP message from PARTY A to

PARTY B, and FIG. 9 is a diagram that illustrates the SIP transaction involving the SPAWN SIP request:



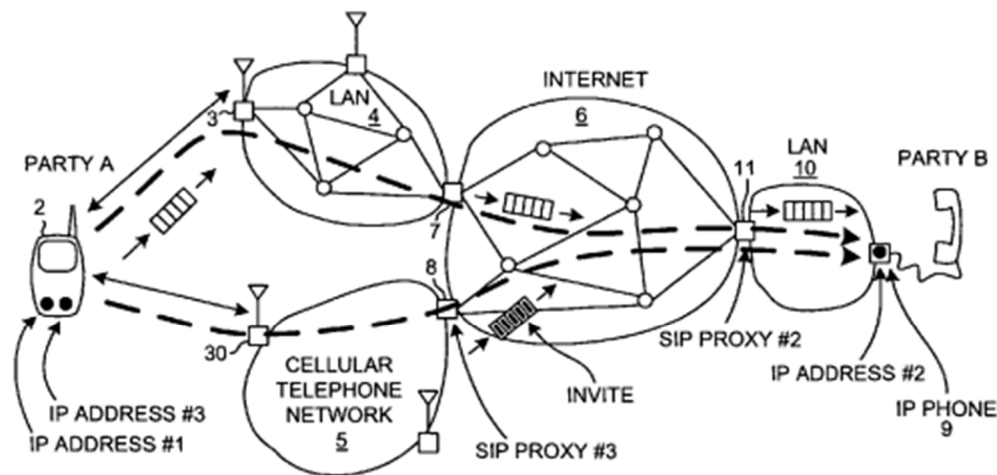
SPAWN MESSAGE
FIG. 8



SPAWN MESSAGE
FIG. 9

EX1006, FIGS. 8, 9, 8:47-67.

As illustrated, the SPAWN SIP message is communicated from IP phone **2**, across the **802.11** wireless link to access point **3** on LAN **4**, across LAN **4** to SIP proxy **7**, across Internet **6** and to SIP proxy **11**, and across LAN **10** and to PARTY B's IP phone **9**. EX1006, FIGS. 8, 9, 8:47-67. In simpler terms and as clearly shown in FIG. 9, the SPAWN SIP message is entirely communicated in the first session (i.e., the LAN session) and is sent **before** any switching occurs. EX2001, ¶ 82. Only **after** the SPAWN SIP message is communicated (and the 200 OK SIP message is received by PARTY A's phone **2**) is there any communication with another network, as shown in FIG. 10 in which PARTY A's phone **2** is shown to issue a second INVITE SIP request for handing off communications to the cellular telephone network **5**:



INVITE FOR SECOND SESSION

FIG. 10

EX1006, FIG. 10; 9:5-32. Thus, because the SIP SPAWN message in *Kottilingal* is sent prior to any path switching, it fails to teach or suggest a SIP sequence that is “maintained **after** said switching...” as set forth in the independent claims. EX2001, ¶ 83. The Petition fails to even address this threshold discrepancy, and Ground 2 based on *Kottilingal* must be rejected on this basis.

2. *Kottilingal* Focuses on a Different Handoff/Over Process, Teaching Away from the Claimed Subject Matter

The cited “SPAWN” message shown in Fig. 7 of *Kottilingal* further cannot teach or suggest “...the SIP signaling sequence of the transmission is maintained after said switching from the first network path to the one of a plurality of alternative network path” because in fact it does exactly the opposite; it establishes a **new SIP session** over another network path in which SIP message sequence numbers are not maintained after the switching. *Kottilingal* therefore teaches away from the claimed subject matter, instead focusing on creating separate SIP sessions for calls as a mechanism for transferring between networks.

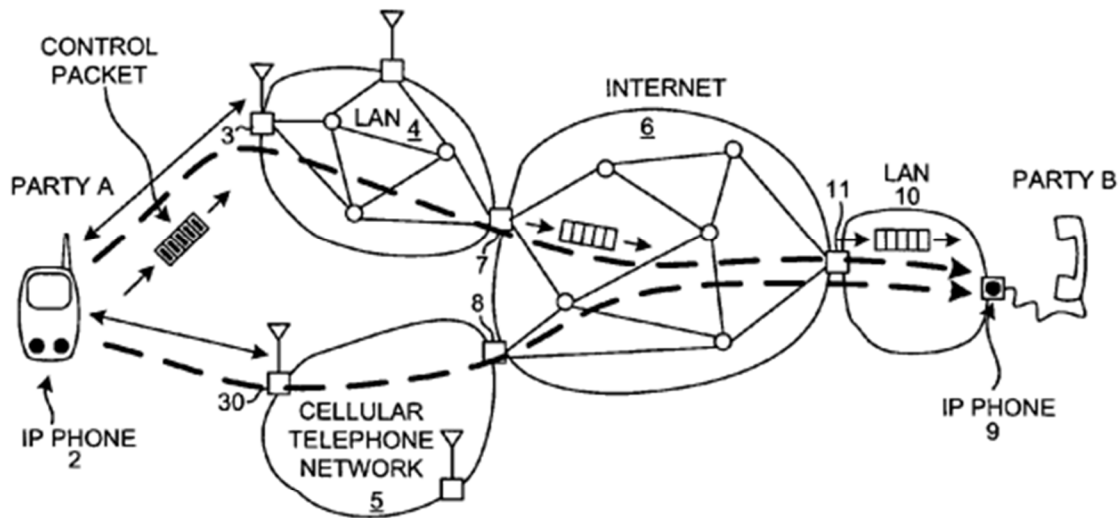
Specifically, *Kottilingal* focuses on addressing issues with call quality by establishing multiple parallel SIP sessions. EX2001, ¶ 85. If the call quality of a first SIP session that uses a given path becomes slower than that offered along a second network path, a second new SIP session is initiated. The abstract in *Kottilingal* provides a summary of the disclosed process:

A first mobile device has two air interfaces. The first mobile device uses its first interface to transmit VoIP/VIP packets to a second device in a first session. **If a quality of service decreases, then the first device causes a second session to be set up where the second session uses the second air interface.** Both the first and second air interfaces are then used to communicate packets of a single media stream from the first device to the second device. The packets are transmitted in the first and second sessions in interleaved fashion, where the ratio of packets communicated in one session versus the other per unit time is adjusted in accordance with a quality of service afforded by one session versus a quality of service afforded by the other session. The second device orders the data payloads of the packets, thereby reconstructing the single media stream.

EX1006, Abstract (emphasis added).

The accompanying description in this reference provides additional details regarding how these various SIP sessions are initiated, describing how a given call's data is transferred across these sessions and their corresponding paths. For example, in one embodiment, once a subsequent SIP session is established, data transmission in the prior SIP session is terminated. *See* EX1006, 2:42-61. In another, the two SIP sessions are continued and data is transmitted across the two sessions in an interleave manner and ordered at the destination. *See Id.* at 3:32-44. Importantly, in none of the embodiments described in *Kottilingal* is the SIP signaling sequence maintained from one SIP session configured across one network to another network after switching. EX2001, ¶ 86. There is no teaching that the SIP sequencing should be maintained in any of the embodiments discussed in *Kottilingal*.

This is further evident by examining Figures 13 and 14 of *Kottilingal*:



MEDIA FLOW HANDOFF CONTROL PACKET
FIG. 13

```

SWITCH SIP:BOB@BILOXI.COM SIP/2.0
VIA: SIP/2.0/UDP PC33.ATLANTA2.COM;BRANCH=ADFD SGFSS
MAX-FORWARDS: 70
TO: BOB <SIP:BOB@BILOXI.COM>
FROM: ALICE <SIP:ALICE@ATLANTA2.COM>;TAG=876198
CALL-ID: D7878-0-A2@PC33.ATLANTA2.COM
CSEQ: 31401 SWITCH
CONTACT: SIP:ALICE@PC33.ATLANTA2.COM.
CONTENT-TYPE: APPLICATION/SDP
CONTENT-LENGTH: 142

SPAWN-ID: ASD14KLJLDK1567E409870

SWITCH-FROM: ALICE <SIP:ALICE@ATLANTA1.COM>
SPAWN-TO: ALICE <SIP:ALICE@ATLANTA2.COM>

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MEDIA FLOW HANDOFF CONTROL PACKET
FIG. 14

EX1006, FIGS. 13, 14 (annotations added). In this embodiment of *Kottilingal*, after the second session is established, a handoff control packet is sent from the mobile

communication device to the target to alert the target that subsequent VoIP packets will no longer be received in the first session but rather will be received in the second session. *Id.* at 2:45-49. As shown in FIG. 13, the handoff control packet is sent over the first session. *Id.* at FIG. 13. As shown by the annotations above, the SIP sequencing number of the handoff control packet is 31401 SWITCH, which is distinctly different than the CSEQ of the SPAWN SIP message (314160 SPAWN) and of the Master CSEQ of the SPAWN SIP message (314159 INVITE). EX2001, ¶ 88. *See* EX1006, FIG. 7; FIG. 14. In contrast with the Petition's assertions, this discrepancy evidences that the SIP signaling sequence *is not* maintained after the transmission is switched from the first network path to a second network path, as it is handed off from the first session to the second session. For at least these reasons, the Board should deny institution on this Ground.

V. THE BOARD SHOULD EXERCISE ITS DISCRETION AND DECLINE TO INSTITUTE REVIEW OF THE '554 PATENT

The Board should exercise its discretion and deny institution under 35 U.S.C. § 314(a) because all six *Fintiv* factors favor discretionary denial. There is no requirement that the Board institute *inter partes* review. *See, e.g., Harmonic Inc. v. Avid Tech. Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016). “[T]he PTO is permitted, but never compelled, to institute an IPR proceeding.” *Id.* Rather, the decision to institute is delegated to the Board and is purely discretionary.

35 U.S.C. §314(a) gives the Board discretion to deny institution because of efficiency considerations stemming from parallel proceedings on the same patent. *See NHK Spring Co. v. Intrix-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 20 (PTAB Sept. 12, 2018) (precedential). The PTAB has established six factors for determining whether discretionary denial due to efficiency considerations relating to parallel proceedings is appropriate (the “*Fintiv* factors”):

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

Apple Inc. v. Fintiv, Inc., IPR2020-00019, Paper 11 at 6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv I*”); *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 7-8 (PTAB May 13, 2020) (informative, designated July 13, 2020) (“*Fintiv II*”).

The Director has issued additional guidance on the application of *Fintiv*. See Katherine K. Vidal, *Interim Procedure for Discretionary Denials in AIA Post- Grant Proceedings with Parallel District Court Litigation* (June 21, 2022)⁶ (“*Fintiv Memo*”); see also *OpenSky Indus., LLC v. VLSI Tech. LLC*, IPR2021-01064, Paper 102 at 49-50 (PTAB Oct. 4, 2022) (precedential); *CommScope Techs. LLC v. Dali Wireless, Inc.*, IPR2022-01242, Paper 23 at 1 (PTAB Feb. 27, 2023) (precedential). According to the *Fintiv Memo*, if the Board “determines that the information presented at the institution stage presents a compelling unpatentability challenge, that determination alone demonstrates that the PTAB should not discretionarily deny institution under *Fintiv*.” *Fintiv Memo* at 4-5. However, *OpenSky* and *CommScope* make clear that the compelling merits standard is a **significantly higher** standard than the institution standard, requiring that it be “highly likely that the petitioner would prevail with respect to at least one challenged claim.” *OpenSky*, IPR2021-01064, Paper 102 at 49; *CommScope*, IPR2022-01242, Paper 23 at 3-4 (“the compelling merits standard is a higher standard than the standard for institution set by statute”). Further, “compelling merits” should be considered only after a

⁶ Available at https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621.pdf.

determination that the first five *Fintiv* factors favor discretionary denial. *CommScope*, IPR2022-01242, Paper 23 at 4-5.

Here, all six *Fintiv* factors weigh heavily in favor of discretionary denial and there are no “compelling merits” or a *Sotera*-type stipulation. Accordingly, the Board should exercise its discretion and deny institution.

A. Factor 1

The first *Fintiv* factor—whether a stay exists or is likely to be granted if a proceeding is instituted—weighs in favor of denial. Petitioners have not sought a stay pending an institution decision in the district court, and Patent Owner will not seek or consent to one. Moreover, even if Petitioners were to seek a stay, that motion would almost certainly be denied. The Eastern District of Texas has an established practice not to stay litigation pending resolution of IPR prior to institution. *See, e.g., Viavi Sols. Inc. v. Zhejiang Crystal-Optech Co.*, No. 2:21-CV-00378-JRG, 2022 WL 16856099, at *5 (E.D. Tex. Nov. 10, 2022) (“It is the Court’s established practice to consider that motions to stay pending IPR proceedings which have not been instituted are inherently premature and should be denied as such.”); *Resonant Sys., Inc. v. Sony Grp. Corp.*, No. 2:22-cv-00424-JRG, Dkt. 84 at 4-6 (E.D. Tex. July 9, 2024) (denying stay when defendant delayed filing IPR petitions until 10 months after service of complaint and where IPRs would be decided after district court trial); *DigitalDoors, Inc. v. Int’l Bus. Machines Corp.*, No. 2:22-cv-457-JRG, Dkt. 41 at 4-

5 (July 23, 2023) (denying stay when parties had exchanged contentions and discovery had begun).

Even post-institution, the district court judge is unlikely to stay the case absent agreement from the parties. EX2003 (showing nearly 60% and 54% of motions to stay pending IPR denied in 2023 and 2024, respectively); EX2004, p. 13 (showing a total win rate of 26.9% and a win rate of 16% in 2024 on contested motions to stay pending IPRs in the Eastern District of Texas); *see also id.* at 61 (showing Judge Gilstrap granting a total of 17.7% contested motions to stay pending IPRs). Here, the chances are even lower because Petitioners waited an extended period of time and well into the discovery period to file the Petition. The institution decision will issue so late in the district court proceeding—well into expert discovery, dispositive motions, and pre-trial preparation—that it is exceedingly unlikely that the EDTX court would grant a contested stay. Thus, because a stay is unlikely, this factor weighs in favor of denial.

B. Factor 2

The second *Fintiv* factor—the proximity of the court’s trial date to the Board’s projected statutory deadline for a Final Written Decision—weighs heavily in favor of denial. The Notice of Filing Date Accorded to Petition was mailed on October 23, 2024. Paper 6, 1. A Final Written Decision will therefore be due no later than **April 23, 2026**. *See* 35 U.S.C. §314(b); 35 U.S.C. §316(a)(11). Jury selection in the district

court litigation is scheduled to begin on **October 20, 2025**. EX1018. Thus, trial in the district court will occur **six months** before a final written decision would be issued.

Further, under the *Fintiv* Memo, the PTAB will consider the median time from filing to disposition of the civil trial for the district in which the parallel litigation resides. *Fintiv* Memo at 3. The current median time to trial in the Eastern District of Texas is 21.9 months. EX2005 at 35. The first district court action alleging infringement of the '554 Patent was filed on October 10, 2023, while the other two district court litigations were filed on December 1, 2023. EX1016 at 11. Based on the aforementioned statistics, trial would be expected August or October 2025. Thus, using either the actual scheduled trial date in this matter or the median time-to-trial statistics for the Eastern District of Texas, trial is expected to conclude at least six months before a final written decision is due in this matter.

The Board has found similar parallel dates to weigh heavily in favor of discretionary denial. *See Fintiv* I at 9 (“If the court’s trial date is earlier than the projected statutory deadline, the Board generally has weighed this factor in favor of exercising authority to deny institution under *NHK*.”); *Ericsson Inc. v. Collison Commc’ns, Inc.*, IPR2022-01233, Paper 12 at 12-13 (PTAB Jan. 19, 2023) (holding factor two “weighs in favor of denying institution, given that we would not expect to issue a final written until at least four months” after trial); *10X Genomics v. Pres.*

and Fellows of Harvard College, IPR2023-01299, Paper 15 at 17 (PTAB Mar. 7, 2024) (denying institution of IPR when district court trial date was up to five months before FWD deadline); *Samsung Elecs. Co. v. Mojo Mobility Inc.*, IPR2023-01098, Paper 11 at 7-8 (PTAB Feb. 9, 2024) (denying institution of IPR when district court trial date was five months before FWD deadline).

Further, granting institution here would frustrate one of the primary objectives of the AIA, which is “to provide an effective and efficient alternative” to district court litigation. *NHK Spring*, IPR2018-00752, Paper 8 at 19-20 (quoting *General Plastic Indus. Co., v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 15-19 (PTAB Sept. 6, 2017) (precedential). If IPR were instituted, any potential FWD would issue well after trial concludes. Thus, instituting IPR here cannot be viewed as an “alternative” to litigation. Rather, it would simply create more litigation. Because the district court’s trial date is six months before the anticipated FWD date here, factor two weighs heavily in favor of denying institution.

C. Factor 3

The third *Fintiv* factor—the amount and type of work already completed in the parallel litigation by the court and the parties at the time of the institution decision—also favors denial. Petitioners cannot discount the investment the district court and the parties have already made in this dispute (and will make before the expected institution decision date.). The parties have completed their Eastern District

of Texas P.R. 3-1 and 3-2 disclosures (Infringement Contentions), P.R. 3-3 and 3-4 disclosures (Invalidity Contentions), P.R. 4-1 disclosures (Proposed Claim Terms), P.R. 4-2 disclosures (Preliminary Claim Constructions), and P.R. 4-3 disclosures (Joint Claim Construction Statement). EX1018, 4. The institution decision is expected no later than April 23, 2025. *See* 35 U.S.C. §314(b). By that date, the parties will have completed claim construction discovery and briefing, submitted technology tutorials, and the court will have held the claim construction hearing. EX1018 at 3-4. Further, the parties must substantially complete document production in just a few weeks, by February 26, 2025. The parties have already exchanged 18,379 pages of documents in fact discovery, and multiple third parties are providing documents and source code for inspection in response to subpoenas. Thus, significant substantive work will have already been completed in the district court litigations by the expected time of the institution decision. *See Fintiv II* at 14 (“based on the level of investment and effort already expended on claim construction and invalidity contentions in the District Court, this factor weighs somewhat in favor of discretionary denial in this case”).

The amount of investment that has occurred in this case is similar to other cases in which the Board has found this factor weighed substantially in favor of denying institution. *See, e.g., 10X Genomics*, IPR2023-01299, Paper 15 at 18 (denying institution of IPR when district court case had proceeded through Markman

hearing and parties had exchanged contentions and completed substantial fact discovery); *Samsung Elecs.*, IPR2023-01098, Paper 11 at 8-9 (denying institution of IPR when district court case had nearly completed fact discovery and substantial preparation for the Markman hearing, including briefing had occurred).

Petitioners cite *PEAG LLC v. Varta Microbattery GMBH*, IPR2020-01214, Paper 8 at 17 (PTAB Jan. 6, 2021) for the proposition that “since no claim construction hearing had yet been held and discovery was not completed, the little investment in the parallel proceeding weighed against discretionary denial. Petition at 89. However, as discussed above, by the time of the institution decision here, the district court will have held the claim construction hearing and significant discovery will have taken place.

Further, the Petition was filed on October 10, 2024. Petition at 1. Infringement contentions were served on March 20, 2024, and invalidity contentions were served on May 29, 2024. Petitioners waited many months, and until just days prior to the deadline to file under 35 U.S.C. § 315(b), to file the Petition. This timeline shows significant delay by Petitioners. Accordingly, factor three favors the Board exercising discretion to deny institution.

D. Factor 4

The fourth *Fintiv* factor—overlap between issues raised in the petition and in the parallel proceeding—also weighs in favor of denying institution. “[I]f the

petition includes the same or substantially the same claims, grounds, arguments, and evidence as presented in the parallel proceeding, this fact has favored denial.” *Fintiv* I at 12. There is substantial overlap between the invalidity positions advanced in the Petition and before the district court. The primary references at issue in the Petition—*Tagg* and *Kottilingal*—are identified and charted in Petitioners’ invalidity contentions. EX2006, Excerpts from Defendants’ P.R. 3-3 Invalidity Contentions and Subject Matter Eligibility Contentions at 32 (describing *Kottilingal*), 38 (describing *Tagg*), 40-119 (charting *Koggingal*), and 120-162 (charting *Tagg*). This factor thus favors denying institution as well.

E. Factor 5

The fifth *Fintiv* factor—whether petitioners and defendants in the parallel proceedings are the same parties—weighs in favor of discretionary denial. The parties here and in the district court litigation are identical. *Fintiv* II at 15 (“Because the petitioner and the defendant in the parallel proceeding are the same party, this factor weighs in favor of discretionary denial.”). Factor five therefore favors discretionary denial of institution.

F. Factor 6

The sixth *Fintiv* factor—other circumstances that impact the Board’s exercise of discretion, including the merits—weighs in favor of discretionary denial. As discussed above in Section IV, the merits of Petitioners’ arguments are weak and

Petitioners have failed to show a reasonable likelihood of success for any ground, much less a high likelihood of prevailing as required to show “compelling merits.” *See Fintiv I* at 15 (“if the merits of the grounds raised in the petition are a closer call, then that fact has favored denying institution when other factors favoring denial are present”); *Commscope*, IPR2022-01242, Paper 23 at 5 (“Merely pointing to ... analysis under the lower institution standard is insufficient to demonstrate that the Petition presents a compelling *unpatentability* challenge.”).

In addition, the Board has found this factor to favor exercising discretion to deny institution where a patent owner identifies flaws in the petitioner’s mapping of reference(s) to the claim elements. *Verizon Bus. Network Servs. LLC v. Huawei Techs. Co.*, IPR2020-01278, Paper 12 at 15 (PTAB Jan. 26, 2021); *Fintiv I* at 15 (“[I]f the merits of the grounds raised in the petition are a closer call, then that fact has favored denying institution when other factors favoring denial are present.”). As discussed *supra*, Petitioners have failed to show that their proposed combinations meet several claim elements. Ground 1 of the Petition completely ignores a claim limitation common to all independent claims (i.e., that a SIP signaling sequence is maintained after switching network paths), which is ultimately fatal. *See Uber*, 2022 WL 17490219, at *7. Ground 2 acknowledges the limitation but mischaracterizes the prior art in asserting that the limitation is disclosed. Merits are not “compelling”

when no combination of asserted references discloses every limitation of the challenged claims. Given these flaws, the Board should decline institution.

Further, every IPR Petition necessarily alleges, as Petitioners do here, that the asserted prior art teaches limitations that were missing from the prior art examined during prosecution. Such generic allegations do not rise to the level of compelling merits. *See, e.g., OpenSky*, IPR2021-01064, Paper 102 at 49 (“a compelling-merits challenge is a higher standard than the reasonable likelihood required for the institution of an IPR under 35 U.S.C. § 314(a)”). Thus, factor six favors discretionary denial.

Accordingly, all six *Fintiv* factors weigh in favor of discretionary denial. The Board should use its discretion to deny institution.

VI. CONCLUSION

For the foregoing reasons, Aspen respectfully requests that the Board decline to institute *inter partes* review.

Dated: January 23, 2025

Respectfully submitted,

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IPR2025-00008

U.S. Patent No. 8,009,554

CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that this Preliminary Response complies with the type-volume limitation of 37 C.F.R. § 42.24(b). The word count application of the word processing program used to prepare this Preliminary Response indicates that the Preliminary Response contains 9,761 words.

Dated: January 23, 2025

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R § 42.6(e), I hereby certify that on January 23, 2025, a true and correct copy of the foregoing was served on Counsel for Petitioner via filing through the P-TACTS System, as well as by delivering a copy via electronic mail to the following:

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