

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DELL TECHNOLOGIES INC. AND DELL INC.,
Petitioners,

v.

CLOUD BYTE LLC,
Patent Owner.

Case IPR2025-01285
Patent No. 9,560,177

**PETITIONERS' OPPOSITION TO PATENT OWNER'S
REQUEST FOR DISCRETIONARY DENIAL**

TABLE OF CONTENTS

I.	Introduction.....	1
II.	Background.....	2
III.	Discretionary Denial Is Not Warranted Under the <i>Fintiv</i> Factors	4
A.	Factor 4: Dell’s Expansive Stipulation	4
B.	Factor 2: Proximity of Trial Date.....	6
C.	Factor 3: Investment in District Court	7
D.	Factors 1 and 5	7
E.	Factor 6: Compelling Merits	8
IV.	The Settled Expectations of the Parties Favor Institution	8
A.	Dell Had the Settled Expectation That It Would Not Be Sued on the Challenged Patent.....	8
1.	Dell and NEC Were Both Members of the Open Networking Foundation and Pledged to License Relevant Patents to Each Other for Free, Creating Settled Expectations for Dell	8
2.	NEC and Dell Worked Together to Build Mutually Compatible Networking Products Compliant with OpenFlow, Creating Settled Expectations for Dell	10
B.	Patent Owner Has No Settled Expectations in the Challenged Patent	12
1.	Patent Owner Only Recently Acquired the Patent, Which Has Not Been Commercialized and Has Not Been Asserted Except in the Related Litigation Against Dell.....	12
2.	Evidence of “Forward Citations” Favors Rejecting Patent Owner’s Request for Discretionary Denial.....	13
3.	Neither NEC Nor the Current Patent Owner Ever Had Settled Expectations in View of the Rejection of a European Equivalent.....	14

V.	Institution of <i>Inter Partes</i> Review Is an Appropriate Use of Board Resources	15
A.	The Requested <i>Inter Partes</i> Review Will Serve National Security Interests and Benefit the United States Government.....	15
B.	The Requested <i>Inter Partes</i> Review Can Correct Patent Office Error.....	18
VI.	Application of Recent Memoranda.....	19
VII.	Conclusion	20

TABLE OF AUTHORITIES

FEDERAL CASES

<i>Return Mail, Inc. v. U.S. Postal Service</i> , 587 U.S. 618 (2019).....	17
<i>In re Sang Su Lee</i> , 277 F.3d 1338 (Fed. Cir. 2002)	20

FEDERAL ADMINISTRATIVE DECISIONS

<i>Apple Inc. v. Ferid Allani</i> , IPR2025-00856, Paper 11 (PTAB Sept. 5, 2025).....	6
<i>Apple Inc. v. Fintiv, Inc.</i> , IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020)	1, 4, 5, 7
<i>Cisco Systems, Inc. v. C-Cation Techs., LLC</i> , IPR2014-00454, Paper 12 (PTAB Aug. 29, 2014).....	8, 9
<i>HP Inc. v. Slingshot Printing LLC</i> , IPR2020-01084, Paper 13 (PTAB Jan. 14, 2021)	8
<i>Intel v. Proxense</i> , IPR2025-00327, Paper 12 (PTAB Jun. 26, 2025)	12, 13, 14, 16
<i>Microsoft Corp. v. Partec Cluster Competence Ctr. GmbH</i> , IPR2025-00318, Paper 9 (PTAB June 12, 2025)	18
<i>Motorola Solutions Inc. v. Stellar, LLC</i> , IPR2024-01205, Paper 19 (PTAB Mar. 28, 2025).....	5
<i>Padagis US v. Neurelis</i> , IPR2025-00464, Paper 12 (PTAB July 16, 2025)	7
<i>Roku, Inc. v. IOENGINE, LLC</i> , IPR2022-01554, Paper 11 (PTAB May 5, 2023)	7
<i>Samsung Electronics v. Wilus Institute of Standards</i> , IPR2025-00935, Paper 12 (PTAB Sept. 26, 2025).....	6
<i>Sand Revolution II, LLC v. Continental Intermodal Group – Trucking LLC</i> , IPR2019-01393, Paper 24 (PTAB June 16, 2020)	7

<i>Shenzen Tuozhu Tech. Co. Ltd. v. Stratasy, Inc.</i> , IPR2025-00531, Paper 10 (PTAB July 17, 2025)	5, 6, 12
--	----------

<i>Tesla, Inc. v. Intellectual Ventures II LLC</i> , IPR2025-00217, Paper 9 (PTAB June 13, 2025)	5, 17
---	-------

FEDERAL STATUTES

35 U.S.C.	
§ 102.....	5
§ 103.....	5
§ 315.....	5

FEDERAL REGULATIONS

37 C.F.R.	
§ 42.6.....	8
§ 42.108.....	20

Updated List of Exhibits

Exhibit	Description
1001	U.S. Patent No. 9,560,177 (the “’177 Patent”)
1002	Prosecution history of U.S. Patent Application No. 15/072,558, which led to the issuance of the ’177 Patent
1003	Declaration of Mark Crovella, Ph.D. in Support of Petition for <i>Inter Partes</i> Review of U.S. Patent No. 9,560,177
1004	<i>Curriculum vitae</i> for Mark Crovella, Ph.D.
1005	U.S. Patent No. 6,526,052 (“Rijhsinghani”)
1006	Request for Comments 5474, “A Framework for Packet Selection and Reporting” (“RFC-5474”)
1007	U.S. Patent Application Publication No. 2008/0031141 (“Lean”)
1008	Kurose and Ross, “Computer Networking: A Top-Down Approach” (4th ed. 2008) (“Computer Networking”)
1009	OpenFlow Switch Specification (version 1.0.0)
1010	Request for Comments 1701, “Generic Routing Encapsulation (GRE)”
1011	Request for Comments 2784, “Generic Routing Encapsulation (GRE)”
1012	Request for Comments 2026, “The Internet Standards Process – Revision 3”
1013	RFC Editor – Publication Process
1014	U.S. Patent No. 6,956,854
1015	U.S. Patent No. 7,389,359
1016	U.S. Patent No. 7,660,259

Exhibit	Description
1017	U.S. Patent No. 8,724,638
1018	U.S. Patent No. 8,125,920
1019	U.S. Patent No. 7,626,938
1020	U.S. Patent No. 6,041,042
1021	U.S. Patent Application Publication No. 2004/0003094
1022	McKeown, “Fast Switched Backplane for a Gigabit Switched Router,” Business Communications Review (Dec. 1997)
1023	Partridge, et al, “A 50-Gb/s IP Router,” IEEE/ACM Transactions on Networking (June 1998)
1024	Claffy, et al., “Application of Sampling Methodologies to Network Traffic Characteristics,” ACM SIGCOMM Computer Communication Review, vol. 23, issue 4 (1993)
1025	Duffield and Grossglauser, “Trajectory Sampling for Direct Traffic Observation,” IEEE/AMC Transactions on Networking, vol. 9, no. 3 (2001)
1026	History of Packet Sampling @ sFlow.org
1027	NetFlow Configuration Guide, Cisco IOS, Release 12.2SX
1028	Experiences with Widespread Packet Sampling
1029	Complaint for Patent Infringement
1030	Cloud Byte’s Preliminary Infringement Contentions with attached Exhibit 6
1031	U.S. District Court – Judicial Caseload Profiles (March 2025)
1032	Assignment (U.S. Patent No. 9,560,177)
1033	Lex Machina (U.S. Patent No. 9,560,177)

Exhibit	Description
1034	Cloud Byte’s Disclosure of Proposed Claim Constructions and Extrinsic Evidence with attached Exhibit A
1035	Internet Archive Declaration of Mina Ching for RFC-5474
1036	Declaration of Su Li
1037	USPTO Assignment Database for U.S. Patent No. 9,560,177
1038	Lex Machina – Summary of Patent Portfolio (U.S. Patent No. 9,560,177)
1039	Lex Machina – Summary for Patent Portfolio (U.S. Patent No. 9,313,128)
1040	Office Action in <i>Ex Parte</i> Reexamination of U.S. Patent No. 7,739,544
1041	P.R. 4-5(d) Joint Notice Regarding Claim Construction Chart
1042	Open Networking Foundation Press Release: “Open Networking Foundation Formed to Speed Network Innovation”
1043	Cisco Press Release: “Open Networking Foundation Formed to Speed Network Innovation”
1044	LINUX Magazine: “Open Networking Foundation Formed”
1045	Open Networking Foundation Intellectual Property Rights Policy
1046	NEC Press Release: “NEC and Dell Validate Interoperability, Announce New Distribution Agreement”
1047	NEC Press Release: “NEC Selected as Finalist for Best of Interop 2014 Award”
1048	NEC Press Release: “NEC Chairman Kaoru Yano to Appear as Keynote Speaker at Open Networking Summit 2012”
1049	NEC Press Release: “NEC to Highlight Expanded Reach of OpenFlow-enabled SDN during Open Networking Summit 2013”

Exhibit	Description
1050	NEC Press Release: “NEC’s Latest SDN Release Increases Scalability 10X with New Unified Network Coordinator (UNC)”
1051	ACN Newswire: “NEC Showcases Latest SDN/NFV Capabilities at Open Networking Summit 2015”
1052	LINUX Foundation: “Linux Foundation Announces 20+ New Plenary Speakers and 17 Demos in the SDN & NFV Solutions Showcase for Open Networking Summit”
1053	LINUX Foundation: “ONF Showcases New ONOS Release, Use Cases and Field Trials at ONS”
1054	Open Networking Summit Europe 2018 Speaker Toshiaki Takhashi (NEC Corporation)
1055	Open Networking Summit Europe 2019 Speaker Toshiaki Takhashi (NEC Corporation)
1056	NEC – “Introducing Dell EMC Hyperconverged Products”
1057	Cloud Byte LLC, Intellectual Property Asset Management
1058	European Patent Application No. EP11858533.0
1059	European Patent Office Search Report for EP11858533.0
1060	European Patent Office Notice
1061	USASpending.gov – Recipient Profile (Dell Technologies, Inc.)
1062	USASpending.gov – Recipient Profile (Dell Federal Systems L.P.)
1063	USASpending.gov – Search Results
1064	“Contracts for Aug. 7, 2024” (www.war.gov)
1065	Dell Press Release – “Dell Technologies Achieves US Department of Defense Validation for Zero Trust Solution”
1066	Defense Information Systems Agency Memorandum

Exhibit	Description
1067	DoD/Defense Information Systems Agency – “Dell OS10 Switch Security Technical Implementation Guide (STIG) Overview”
1068	Second Declaration of Su Li

I. INTRODUCTION

Petitioners Dell Technologies Inc. and Dell Inc. (collectively, “Dell”) oppose Patent Owner’s request for discretionary denial. Significantly, the *Fintiv* factors, viewed in their totality, strongly favor institution of Dell’s requested review. Most importantly, Dell has stipulated that if review is instituted it ***will drop any anticipation or obviousness defense*** to the ’177 Patent in the related district court proceeding.¹ This expansive stipulation avoids any possibility of overlap with the related litigation and makes the requested review a true alternative to litigation.

In addition, NEC Corporation obtained the ’177 Patent and owned it for nearly all of the patent’s existence before Patent Owner acquired it in 2024 (and immediately sued Dell). Yet Dell had the settled expectation from its longstanding relationship with NEC—including with regard to the subject matter of the challenged ’177 Patent—that it would not be sued on NEC patents such as the ’177 Patent. Among other things, Dell and NEC were members of the Open Networking Foundation with IP policies requiring NEC to grant Dell a license to the challenged patent, further creating settled expectations that Dell would not be sued based on the ’177 Patent. In contrast, Patent Owner had no settled expectations because the patent had not been commercialized or asserted; indeed, if anything, Patent Owner must have expected this type of challenge when it

¹ See Section III.A, below.

acquired the patent and immediately used it to sue Dell.

Dell's requested IPR is also an appropriate use of the Board's resources. In contrast to Patent Owner, which has never developed any product (based on the '177 Patent or anything else) and has no intention of doing so, Dell has made huge investments in research and development in the United States over decades to offer its products to customers throughout the United States. This has specifically included various agencies of the federal government such as the Departments of War, Veterans Affairs, and Homeland Security, which purchase millions of dollars in Dell products every year. Dell's petition shows that the '177 Patent is invalid, so Patent Owner's parallel lawsuit threatens to impose higher costs on Dell and its customers (including federal agencies) based on an invalid patent. This is true though Dell indisputably developed the accused products without any knowledge of the asserted patents. It is in the interest of the U.S. economy and national competitiveness to protect U.S. companies like Dell against invalid patents owned by foreign entities or acquired from them for the sole purpose of litigation.

Dell respectfully requests that the Director not exercise discretion to deny review and instead consider the petition's compelling merits and institute review.

II. BACKGROUND

The challenged '177 Patent claims priority to a 2011 Japanese application and was originally assigned to the Japanese company NEC Corp. EX1001, 1. NEC

held the patent (directly or through affiliates) until Patent Owner acquired it in a portfolio of NEC patents through an intermediary in March 2024. EX1037.

Just five months later, in August 2024, Patent Owner filed a lawsuit alleging infringement of seven unrelated patents, including the '177 Patent, against Dell. EX1029. Plaintiff accused Dell of infringing the patent by making and selling “Dell switches that support OpenFlow (and server systems including same)” naming dozens of different Dell products. EX1030, 6. Patent Owner did not contact Dell to negotiate a license before filing suit, and neither Patent Owner nor any prior owner ever asserted the challenged patent in any other lawsuit. EX1038.

On July 14, 2025, Dell filed a petition seeking *inter partes* review of the '177 Patent (and four other NEC patents at issue in the related litigation). The petition showed that a single prior art reference (i.e., Rijhsinghani) discloses and renders obvious every limitation of all independent and several dependent claims. Paper 3 (“Pet.”) at 2, 17-62 (Ground 1). Regarding the remaining dependent claims, the petition provides two separate and equally strong combinations based on the same primary reference. *Id.* at 62-81 (Grounds 2-3). With regard to the only limitation the Patent Owner could even arguably assert is undisclosed, the petition provides a backup argument based on the primary reference and a networking textbook (given how rudimentary the limitation is). *Id.* at 82-84 (Grounds 4-6). Thus, the petition shows how every claim is invalid based on multiple grounds.

This petition is one of five filed by Dell challenging patents asserted in the related litigation, in which Patent Owner asserts seven unrelated patents, in different families, addressing different technologies, and targeting scores of different Dell products.² EX1030, 3-4 (Patent Owner broadly contends that “Dell infringes Cloud Byte’s patented technologies across many different parts of its business” listing a number of different technological areas).

III. DISCRETIONARY DENIAL IS NOT WARRANTED UNDER THE *FINTIV* FACTORS

The *Fintiv* factors, considered as a whole, do not warrant discretionary denial. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential). While the proximity of the trial date may slightly favor Patent Owner, it is far outweighed by Dell’s ***stipulation waiving any anticipation or obviousness defense*** to the ’177 Patent in district court if review is instituted. Paper 7. All other factors are neutral or favor institution.

A. Factor 4: Dell’s Expansive Stipulation

This factor strongly favors institution. Dell has made a stipulation broader

² The other four petitions were filed in IPR2025-01284, -1286, -1287, and -1288. The sixth asserted patent is subject to a Final Rejection in an *ex parte* reexamination. EX1040. The seventh asserted patent is so clearly not infringed it will likely be dropped before trial, making it less worthy of Board resources.

than a *Sotera* stipulation and even broader than a *Sotera-Plus* stipulation cited favorably in recent decisions. See *Shenzen Tuozhu Tech. Co. Ltd. v. Stratasys, Inc.*, IPR2025-00531, Paper 10 at 3 (PTAB July 17, 2025); *Tesla, Inc. v. Intellectual Ventures II LLC*, IPR2025-00217, Paper 9 at 2-3 (PTAB June 13, 2025).

Specifically, Dell stipulated:

[I]f the Board institutes review in this proceeding, Petitioners will not pursue in the Related Lawsuit any argument that the challenged claims are invalid for anticipation under 35 U.S.C. § 102 or obviousness under 35 U.S.C. § 103.

Paper 7 at 1.³ Dell's stipulation goes far beyond the estoppel of 35 U.S.C. § 315(e)(2) and fully addresses the concern raised by the Acting Director in *Motorola Solutions Inc. v. Stellar, LLC* regarding potential overlap in combinations of system art with the references asserted in the *inter partes* review. IPR2024-01205, Paper 19 at 3-4 (PTAB Mar. 28, 2025). Dell's stipulation means there can be absolutely no overlap in issues before the Board and the district court. Dell respectfully submits that this expansive stipulation outweighs all other *Fintiv* factors as it conclusively eliminates overlap with the parallel proceeding.

In addition, this factor further supports institution because the petition

³ Dell will assert other defenses not available in an *inter partes* review based on derivation under Section 102(f) and earlier invention under Section 102(g). *Id.*

challenges all 20 claims of the '177 Patent, while only 2 are at issue in the related litigation. EX1068, ¶3. Patent Owner asserts only independent claims 1 and 7 in the district court, so 18 claims (including 2 independent and 16 dependent) will not be addressed at all in district court. Proceeding with a single *inter partes* review of all claims will be far more efficient than piecemeal challenges to different subsets of claims in multiple different district court proceedings Patent Owner will presumably file against others in the same industry.

B. Factor 2: Proximity of Trial Date

Timing of trial in the related lawsuit has far less relevance here in light of Dell's expansive stipulation precluding any overlap in issues. Moreover, Patent Owner's evidence shows the time-to-trial for the Eastern District of Texas is more than 25 months. EX2006. That suggests a trial in September 2026, i.e., approximately four months before the Board's Final Written Decision. Paper 8 at 10. The Director has referred other cases with similar times to a merits panel. *See, e.g., Samsung Electronics v. Wilus Institute of Standards*, IPR2025-00935, Paper 12 at 2-3 (PTAB Sept. 26, 2025) (referring petition to merits panel although trial was scheduled six months before FWD); *Apple Inc. v. Ferid Allani*, IPR2025-00856, Paper 11 at 2-3 (PTAB Sept. 5, 2025) (referring petition although trial was scheduled more than five months before FWD); *Shenzen Tuozhu Tech.*, IPR2025-00438, Paper 10 at 2-4 (referring petition although trial was scheduled more than

four months before FWD); *Padagis US v. Neurelis*, IPR2025-00464, Paper 12 at 2-4 (PTAB July 16, 2025) (referring petition although trial was scheduled more than seven months before FWD).

C. Factor 3: Investment in District Court

This factor favors institution—or is at least neutral—because the parties and court in the related litigation have not yet invested substantial effort on activities pertinent to *Fintiv* and will not need to in light of Dell’s expansive stipulation. The parties have focused primarily on Dell’s venue motion; indeed, Dell did not answer the complaint until Sept. 26, 2025. To date, the district court has conducted claim construction proceedings, but those proceedings have involved ***no claim terms in the ’177 Patent***. EX1041. Thus, the judge has not been required to even consider the ’177 Patent yet. And if review is instituted, the district court will not consider any anticipation or obviousness defenses to the patent in light of Dell’s stipulation.

D. Factors 1 and 5

No motion to stay has been filed, so the Director should not infer the outcome of such a motion. *Sand Revolution II, LLC v. Continental Intermodal Group – Trucking LLC*, IPR2019-01393, Paper 24 at 7 (PTAB June 16, 2020) (informative). Petitioners are the defendants in the related litigation, which is true of most IPR petitioners. Both factors are thus neutral. *See Roku, Inc. v. IOENGINE, LLC*, IPR2022-01554, Paper 11 at 14-15 (PTAB May 5, 2023); *HP*

Inc. v. Slingshot Printing LLC, IPR2020-01084, Paper 13 at 9 (Jan. 14, 2021).

E. Factor 6: Compelling Merits

As discussed above and further below, the petition shows that every claim of the '177 Patent is unpatentable based on multiple grounds. Regarding the merits, Patent Owner asserts that the merits are “weak” but fails to say why. Indeed, rather than addressing the merits—even in shorthand fashion—Patent Owner purports to “incorporate[] by reference its *forthcoming* Preliminary Response.” Paper 8 at 17.⁴ It is inappropriate to incorporate by reference in *inter partes* review briefing. 37 C.F.R. § 42.6(a)(3); *Cisco Systems, Inc. v. C-Cation Techs., LLC*, IPR2014-00454, Paper 12 at 7 (PTAB Aug. 29, 2014) (informative). Patent Owner compounds the problem by incorporating from an optional brief that was filed on the same day and just shortly before this brief so that Dell had no opportunity to respond.

IV. THE SETTLED EXPECTATIONS OF THE PARTIES FAVOR INSTITUTION

A. Dell Had the Settled Expectation That It Would Not Be Sued on the Challenged Patent

1. Dell and NEC Were Both Members of the Open Networking Foundation and Pledged to License Relevant Patents to Each Other for Free, Creating Settled Expectations for Dell

Dell and NEC were both early members of the Open Networking Foundation

⁴ All emphasis added unless otherwise indicated.

(ONF) founded in 2011. EX1042; EX1043; EX1044. The Intellectual Property Rights Policy adopted by ONF member companies, like NEC and Dell, states: “Each Member, on behalf of itself and its Affiliates, hereby grants to the other Members and their Affiliates, an option to receive under royalty free, reasonable terms and conditions...a nonexclusive, nontransferable, irrevocable...worldwide license under their Necessary Claims....” EX1045, 3 (Section 3). The licensed Necessary Claims are “those claims of all present and future patents and patent applications...concerning interfaces and protocols for server control of switches, which are necessarily infringed by implementation” of an ONF Specification, which includes the OpenFlow Switch Specification. *Id.*, 1 (Section 1.5). Each ONF Member (including NEC) further agreed “that it will not assign or transfer...patents or published patent applications having Necessary Claims for the purpose of circumventing such Member’s obligations under this Intellectual Property Rights Policy.” *Id.*, 4 (Section 7).

In the related litigation, Patent Owner contends that Dell “switches that support OpenFlow” necessarily infringe the ’177 Patent ***by complying with the Open Networking Foundation’s OpenFlow Switch Specification***. EX1030, 6, 16-50 (infringement chart for claim 1, for example). Yet, as an ONF member—and knowing that NEC was also an ONF member—Dell had the settled expectation of receiving a royalty-free, irrevocable license to practice any patents NEC might

consider necessary to comply with the OpenFlow Switch Specification and further that no party would assert an NEC patent against Dell claiming infringement based on compliance with that specification. Moreover, because the ONF IP Rights Policy required ONF members like NEC to notify subsequent purchasers that these patents were subject to ONF license rights, Dell had the settled—and reasonable—expectation that NEC would not transfer any patents without requiring a transferee to honor Dell’s license. Thus, Patent Owner’s contention that Dell infringes the ’177 Patent by complying with the OpenFlow Switch Specification violates the ONF IP Rights Policy and directly contravenes Dell’s settled expectations.

2. NEC and Dell Worked Together to Build Mutually Compatible Networking Products Compliant with OpenFlow, Creating Settled Expectations for Dell

Dell’s settled expectations regarding the subject matter of the ’177 Patent extend beyond its common membership with NEC in the Open Networking Foundation. In mid-2015, NEC announced that, along with Dell, it was validating the compatibility between NEC’s ProgrammableFlow Controllers and Dell’s S-Series of managed switches. EX1046, 1. NEC announced that “Dell’s S4810, S4820, S5000 and S6000 series of switches running Dell OS9 have been verified compatible with the NEC ProgrammableFlow Controller version 6, with additional validation of Dell switches planned.” *Id.*, 2. NEC also announced its distribution agreement allowing Dell “to resell the ProgrammableFlow Controller Software as

one of the software options sold with Dell’s networking hardware.” *Id.*

In other words, because NEC’s ProgrammableFlow Controller was based on the ONF OpenFlow Specification (EX1047), NEC had partnered with Dell to validate that Dell’s products complied with the OpenFlow Switch Specification as implemented by NEC in its controllers. And NEC encouraged Dell to resell NEC software enabling Dell’s switches to comply with the OpenFlow Switch Specification.⁵ Thus, Dell had the settled expectation that it would not be sued on NEC patents for providing switches complying with the OpenFlow Switch Specification and with NEC’s OpenFlow-compliant controllers. Nevertheless, Patent Owner contends in the related litigation that the very same switches validated by NEC (e.g., “Dell’s S4810, S4820, S5000 and S6000 series of switches”) infringe the ’177 Patent because they comply with the OpenFlow Switch Specification. EX1030, 6 (listing accused products including S4810, S4820T, S5000, and S6000 switches).⁶

⁵ More generally, NEC publicly supported and contributed to the OpenFlow Specification including at annual Open Networking Summits through at least 2019. EX1048-EX1055.

⁶ Even today, NEC’s website touts Dell switches, including those accused of infringing the ’177 Patent. EX1056, 3 (NEC website advertising “Dell EMC

B. Patent Owner Has No Settled Expectations in the Challenged Patent

1. Patent Owner Only Recently Acquired the Patent, Which Has Not Been Commercialized and Has Not Been Asserted Except in the Related Litigation Against Dell

Patent Owner has no settled expectations in the '177 Patent. Indeed, Patent Owner only acquired it five months before suing Dell. EX1037. Patent Owner did not attempt to commercialize the patent and has represented that it knows of no commercialization efforts. EX1030, 11. Patent Owner itself has no intention of developing a practicing product as it is merely an “intellectual property asset management” company that “acquires, manages and licenses patents.” EX1057. The failure to commercialize, mark, license, or otherwise apply the challenged patent in Dell’s technology space (or any other) weighs against Patent Owner’s alleged settled expectations. *See Shenzhen Tuozhu Tech.*, IPR2025-00531, Paper 10 at 3 (fact that “the challenged patents have never been ‘commercialized, asserted, marked, licensed, or otherwise applied’ in Petitioner’s ‘particular technology space’” weighed “against Patent Owner’s claim of strong settled expectations”) (quoting *Intel v. Proxense*, IPR2025-00327, Paper 12 at 2-3 (PTAB Jun. 26, 2025)).

Further, Patent Owner must have known that Dell would defend against

Hyperconverged Products” and noting that “using Dell’s Open Network switches (Z series, S series)” makes “the deployment of VxRail smoother and safer”).

claims of patent infringement—including by challenging the validity of the patent—because Patent Owner never contacted Dell to negotiate a license and instead ran directly to its preferred district court to file suit. EX1068, ¶2. Moreover, though NEC owned the challenged patent for more than seven years after issuance, NEC never asserted it against Dell or any other company. *See Intel Corp.*, IPR2025-00327, Paper 12 at 2-3 (a patent that was never previously asserted weighs against any settled expectations); EX1038.⁷ To the extent Patent Owner had any expectation when it acquired the challenged patent and then immediately sued Dell, it must have been that Dell would challenge the validity of the patent as it had never been previously asserted or otherwise tested.

2. Evidence of “Forward Citations” Favors Rejecting Patent Owner’s Request for Discretionary Denial

Patent Owner’s claim to settled expectations relies heavily on its argument that the challenged ’177 Patent and related patents have been “cited dozens of times during prosecution of patents filed by companies such as Cisco, Microsoft, and Broadcom.” Paper 8 at 5. But Patent Owner’s cited evidence shows exactly the

⁷ NEC also owned the parent patent of the ’177 Patent for more than eight years without asserting it in litigation. EX1039. This too weighs against any expectation by Patent Owner that the challenged claims were valid or valuable.

opposite: the patents identified by Patent Owner do not cite to the '177 Patent, they are ***cited by the '177 Patent***. *Id.* (citing EX2001, EX2002, EX2003); *see also* EX1001, 1-2. Thus, Patent Owner's evidence does not show that any entity in Dell's field of technology knew anything about the '177 Patent.

Rather, the evidence of forward citations shows the '177 Patent has never been cited by a subsequent patent and the only citation to its published application is by another NEC patent. EX1068, ¶35. Thus, forward citations show only that NEC was aware of its own application. This evidence supports Dell's argument that Patent Owner had no settled expectations in the challenged '177 Patent.

3. Neither NEC Nor the Current Patent Owner Ever Had Settled Expectations in View of the Rejection of a European Equivalent

NEC filed a foreign equivalent application to the '177 Patent in the European Patent Office (EP11858533) in 2013. EX1058. The EPO conducted a prior art search and, in April 2016, issued a prior art search report identifying a number of relevant prior art references. EX1059. The report stated "the subject-matter of [the] independent claims" did "not involve an inventive step" in view of the prior art. *Id.*, 4. The report cited the OpenFlow Switch Specification (version 1.0) and stated: "Reading the independent claims...it is unclear which problem is solved by encapsulating a packet with the same header, ***Open Flow being state of the art*** and independent of whether a header is added to a packet or not." *Id.*, 3.

NEC declined to respond to the search report, effectively abandoning its EPO application. EX1060. Thus, NEC—and presumably Patent Owner—knew that at least one patent office determined that the subject matter of the '177 Patent was not inventive in light of prior art. Further, because the EPO noted that the patent's subject matter did not appear to address any problem not already addressed by the OpenFlow Switch Specification, Patent Owner should have known that reading the claims to cover that specification would make them obvious in light of prior art. Patent Owner cannot reasonably claim settled expectations to accuse Dell of infringement for complying with the OpenFlow specification, which predates the '177 Patent, without having its validity challenged.

V. INSTITUTION OF *INTER PARTES* REVIEW IS AN APPROPRIATE USE OF BOARD RESOURCES

A. The Requested *Inter Partes* Review Will Serve National Security Interests and Benefit the United States Government

Dell is an American technology company headquartered in Round Rock, Texas, employing tens of thousands of people in offices in 16 states and territories throughout the United States. Dell sells products and services to various federal agencies. Indeed, since 2008, the federal government has made purchases from Dell and its affiliates totaling more than \$20 billion. EX1061; EX1062. This has included billions of dollars in purchases by the Departments of War (including the Army, Navy, and Air Force), Veterans Affairs, and Homeland Security. These

purchases have included the same products Patent Owner accuses of infringing the '177 Patent. EX1063 (showing exemplary purchases of PowerSwitch devices).

As just one recent example, the U.S. Air Force recently announced a contract award to Dell (through an affiliate) of more than \$100 million for “hardware” to support “four different hardware form factors: rack-mounted server, mobile server, mobile lightweight sensor, and ***common hardware switch*** for both rack-mounted and mobile servers.” EX1064, 1.

Dell has worked closely with the federal government, including the Department of War (formerly, Department of Defense or DoD), to validate the compliance of Dell products with stringent federal government standards. For example, earlier this year, Dell achieved DoD validation for replicating the DoD “zero trust architecture.” EX1065. To do so, “Dell completed a rigorous assessment by the U.S. DoD where [Dell’s] Project Fort Zero was tested to withstand sophisticated cyberattacks.” *Id.*, 5 In addition, the DoD’s Defense Information Systems Agency issued a memorandum in January 2025 extending the Joint Interoperability Certification for Dell switches including many accused of infringing the '177 Patent in the related lawsuit (i.e., PowerSwitch S4100/S5200 Series switches and S4248FB-ON, N3248TE-ON, E3224F-ON, and S5448F-ON). EX1066; EX1030, 6-7. Similarly, the DoD issued a Security Technical Implementation Guide for Dell Switches, providing “the technical security

policies, requirements, and implementation details for applying security concepts to Dell OS10 switch devices such as the PowerSwitch S4000, PowerSwitch S5000, and PowerSwitch Z9000 Series.” EX1067, 5. Again, this Guide applies to numerous switches accused of infringement in the related litigation. EX1030, 6-7.

Thus, numerous federal agencies, including our armed forces, rely on Dell products to perform their service. Those products include the same switches that Patent Owner accuses of infringing the ’177 Patent, which Dell has shown in its petition is invalid in light of prior art never considered by the PTO. Should Patent Owner prevail in the related litigation, the result could very well lead to the government paying higher prices for Dell products—higher prices born by taxpayers. Given the complexity of the ’177 Patent (and other asserted patents challenged by Dell), the PTAB provides a far superior venue for analyzing patent validity.⁸ Yet, the government cannot itself use this venue to challenge the patent. *See Return Mail, Inc. v. U.S. Postal Service*, 587 U.S. 618, 637 (2019) (“a federal agency is not a ‘person’ who may petition for post-issuance review under the

⁸ As in *Tesla v. Intellectual Ventures II*, the “large number and vast scope of the patents asserted in the district court litigation...weighs against discretionary denial, as the Board is better suited to review a large number of patents involving diverse subject matter.” IPR2025-00217, Paper 9 at 2-3.

AIA”). Dell’s requested IPR is therefore an effective use of Board resources as it will further national security interests, support various agencies of the U.S. government, and protect the competitiveness of a long-established U.S. company.

B. The Requested *Inter Partes* Review Can Correct Patent Office Error

Dell’s requested *inter partes* review is also a reasonable use of Board resources because it provides an opportunity to correct the erroneous allowance of the ’177 Patent due to the examiner’s failure to identify relevant prior art. See *Microsoft Corp. v. Partec Cluster Competence Ctr. GmbH*, IPR2025-00318, Paper 9 at 3 (PTAB June 12, 2025) (“Petitioner appears to show a material error by the Office and it is an appropriate use of Office resources to review the potential error.”); Paper 8 at 5 (conceding such error can outweigh settled expectations).

During prosecution, the examiner issued only a single rejection asserting (i) invalidity under 35 U.S.C. § 101, and (ii) invalidity for nonstatutory double patenting. EX1002, 88-93. The examiner withdrew the rejection in response to applicant arguments and a terminal disclaimer. *Id.*, 178-179. ***The examiner never issued any rejection based on prior art.*** Yet, the petition challenges every claim of the ’177 Patent based on the primary reference Rijhsinghani, alone or in various combinations, disclosing and rendering obvious every limitation of the challenged claims. Pet. at 17-50 (comparing Rijhsinghani to claim 1, for example). The examiner did not identify Rijhsinghani or the secondary references in the petition.

The examiner's failure to identify and apply this invalidating art resulted in the erroneous issuance of claims that were not properly examined. The Board is well-positioned to correct the error.

Patent Owner cites decisions confirming that its request for discretionary denial can be rejected based on the examiner's failure to identify invalidating prior art. Paper 8 at 5. Patent Owner then refers to the notice of allowance and argues Dell's primary prior art reference fails to disclose the same limitations identified by the examiner. *Id.* at 6. The problem is that the examiner did not cite the limitations identified by Patent Owner (EX1002, 178-179); indeed, ***the challenged claims do not include the limitations identified by Patent Owner.*** Contrary to Patent Owner's argument, the claims never recite anything like "adding or removing path/link information depending on if the incoming packet is forwarded to the external network, and then forwarding the packet using the path/link information." Paper 8 at 6; *cf.* EX1001, 12:25-14:36. Patent Owner's argument that Rijhsinghani does not disclose limitations in some other patent is immaterial.⁹

VI. APPLICATION OF RECENT MEMORANDA

To preserve its position and avoid waiver, Dell respectfully states that the

⁹ Dell showed how Rijhsinghani discloses the limitations the examiner actually did identify in the notice of allowance. Pet. at 42-50 (limitations 1g, 1h, 1i).

Director's Memoranda of March 24, 2025 and October 17, 2025, should not be applied to the present petition because to do so would be inconsistent with the Due Process Clause, the America Invents Act (AIA), the Administrative Procedures Act (APA), and the PTO's existing policies and regulations (including at least 37 C.F.R. §42.108). Dell submits that the AIA forecloses discretionary denial on grounds not specifically set forth therein, including those identified in the Memoranda. Dell further posits that application of the Memoranda infringes upon Dell's Due Process rights in view of its reliance on earlier rules, policies, and procedures. Dell also posits that if the policies articulated in the Memoranda are proper at all, the APA required the PTO to promulgate them through notice-and-comment rulemaking. Further, consistent with the requirements of the APA, Dell requests a reasoned articulation of the basis for a decision on Patent Owner's request for discretionary denial and the decision on institution of review, rather than summary determination. *See, e.g., In re Sang Su Lee*, 277 F.3d 1338, 1342 (Fed. Cir. 2002) ("For judicial review to be meaningfully achieved within these strictures [of the APA], the agency tribunal must present a full and reasoned explanation of its decision.").

VII. CONCLUSION

Dell's petition compellingly demonstrates that every claim of the '177 Patent is invalid. Patent Owner's request for denial without consideration of the merits should be rejected for the reasons discussed above.

Respectfully submitted,

/James L. Day/

James L. Day

Registration No. 72,681

FARELLA BRAUN + MARTEL LLP

One Bush Street, Suite 900

San Francisco, California 94104

jday@fbm.com

CERTIFICATE OF SERVICE

I hereby certify that on October 20, 2025, the document entitled
**PETITIONERS' OPPOSITION TO PATENT OWNER'S REQUEST FOR
DISCRETIONARY DENIAL** along with all supporting exhibits was served on
Patent Owner's counsel via email at the following email addresses:

jimglass@quinnemanuel.com
brianmack@quinnemanuel.com
quincylu@quinnemanuel.com
ronhagiz@quinnemanuel.com

/James L. Day/
James L. Day
Registration No. 72,681