

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CROWDSTRIKE, INC.,
Petitioner

v.

SKYSONG INNOVATIONS, LLC,
Patent Owner

Inter Partes Review Case No. IPR2025-01397
U.S. Patent No. 10,313,385 B2

PATENT OWNER'S DISCRETIONARY DENIAL BRIEF

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Patent Owner Skysong Innovations, LLC (“Skysong”) respectfully requests that the Director exercise deny institution of this *inter partes* review of U.S. Patent No. 10,313,385 (the “’385 Patent”) under 35 U.S.C. §§ 314(a) and 324(a).

I. INTRODUCTION

The Petition challenges claims 1-17 of the ’385 Patent, asserted in the advanced parallel district court litigation *Skysong Innovations, LLC v. CrowdStrike, Inc.*, No. 7:25-cv-00040-DC-DTG (W.D. Tex.) (“Parallel Litigation”), filed January 31, 2025, and amended May 16, 2025. The ’385 Patent is also asserted against Fortinet, Inc. in co-pending litigation in the Eastern District of Texas, in *Skysong Innovations, Inc. v. Fortinet, Inc.*, No. 2:25-cv-00098-JRG (E.D. Tex. filed Jan. 31, 2025, amended June 9, 2025).

This matter presents a strong cause for discretionary denial. **First**, the Petition relies on prior art cumulative to that considered during prosecution, including one reference already reviewed by the Examiner. Petitioner asserts no anticipation grounds under 35 U.S.C. § 102 and fails to show any material error by the Office. Instead, it seeks to have the Director second-guess the USPTO’s examination through extensive expert testimony. This would inefficiently use resources, particularly as discretionary factors strongly favor denial. *See Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020) (precedential) (denying institution where prior art was

substantially the same as art evaluated during prosecution).

Second, compelling national security interests weigh against institution. The challenged technology is of great national security interest and is a result of research projects sponsored by the Office of the Director of National Intelligence through the Intelligence Advanced Research Projects Activity under the Cyber-Attack Automated Unconventional Sensor Environment program, which provided approximately \$1 million in grant funding from 2016 to 2019 to develop the claimed automated tools to predict cyber attacks using unconventional data sources. President Biden's 2021 *Executive Order on Improving the Nation's Cybersecurity* underscores the urgency of protecting research and development efforts in this kind of technology.

Third, inventor Dr. Shakarian met with Petitioner CrowdStrike's senior technical personnel more than six years ago. He explained the proprietary technology he invented and its application to CrowdStrike's flagship Falcon platform. He also explicitly informed CrowdStrike of ASU's efforts to patent the inventions underlying the now-challenged patent. Dr. Shakarian offered to negotiate a license, but CrowdStrike never followed up. CrowdStrike thus knew of this particular invention and also of its relevance to its flagship product now accused of infringing the '385 Patent, but chose inaction for years, until after Skysong was forced to initiate litigation.

Fourth, institution would inefficiently duplicate the parallel district Court litigations, where the Fortinet trial is set for November 2, 2026, and the CrowdStrike trial is set for February 1, 2027—both before the projected Final Written Decision date of February 19, 2027—contrary to *NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 (PTAB Sept. 12, 2018) (precedential); *see also Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv I*”) (outlining factors for discretionary denial based on parallel litigation).

For these reasons and based on the discretionary denial factors, the Director should deny institution. Consistent with the Director’s memorandum reclaiming institution authority under 35 U.S.C. § 314 to eliminate perceived bias and align with congressional intent, Patent Owner respectfully requests that the Director deny institution. *See* USPTO Dir. John A. Squires, Open Letter, *Bringing the USPTO Back to the Future: Return of Institution Authority Under 35 U.S.C. §§ 314 and 324 to the Director* (Oct. 17, 2025) (“Open Letter”) (noting that the delegated model produced “extraordinarily high institution rates (at one point exceeding 95 percent) for referred cases” and emphasizing the Director’s statutory role to ensure impartiality and adherence to AIA intent).

II. FACTUAL BACKGROUND

Patent Owner Skysong is a private nonprofit and the exclusive intellectual property management and technology transfer organization for Arizona State

University (“ASU”). Skysong works with ASU faculty, researchers, and technology industry partners to translate ASU innovations into commercial applications, fostering economic development and public benefit. *See* EX2001, Skysong’s First Amended Complaint against CrowdStrike, ¶¶ 3-4. The ’385 Patent, titled “Systems and Methods for Data Driven Game Theoretic Cyber Threat Mitigation,” stems from ASU research conducted by Dr. Paulo Shakarian and his team. *See* EX2002, Declaration of Prof. Paulo Shakarian, ¶¶ 5-6, 11. It discloses a data-driven security game framework that models an attacker based on exploit market data actively mined from the darknet to develop strategies for the defender in cybersecurity threats. *See* EX1001, 2:62-3:35. The ’385 Patent issued on June 4, 2019, after rigorous examination by the USPTO, and claims priority to November 30, 2015. *Id.* at Page 1. As of October 17, 2025, it has been in force for over six years. The ’385 Patent is part of a collection of Skysong patents within the same cybersecurity field, including U.S. Patent No. 10,313,385 (issued June 4, 2019, over six years in force), U.S. Patent No. 10,574,721 (issued February 25, 2020, over five years in force), U.S. Patent No. 11,275,900 (issued March 15, 2022, over three years in force), and U.S. Patent No. 11,775,831 (issued October 3, 2023, nearly two years in force) (collectively, the “Asserted Patents”).

In March 2019, Dr. Shakarian, then an Associate Professor in the School of Computing and Augmented Intelligence at Arizona State University and a named co-

inventor of the '385 Patent, attended the RSA Conference in San Francisco, California, where he met with CrowdStrike representatives Dmitri Alperovich (Co-Founder and Chief Technology Officer), Justin Weissert (Director of Proactive Services), and Mike Sullivan (Vice President of Global Financial Services). *See* EX2001 ¶¶ 57-60; EX2002 ¶¶ 7-10. During the meeting, Dr. Shakarian disclosed confidential and patent-pending details of his AI-driven threat mitigation research, including the subject matter of the '385 Patent and its family, and discussed its potential application to CrowdStrike's Falcon Platform, particularly proactive and financial services. EX2002 ¶¶ 7-9, Appx B. Dr. Shakarian explicitly informed CrowdStrike of ASU's intent and ongoing efforts to patent this work. *Id.* ¶ 9. Notably, on March 7, 2019—during the period of the RSA Conference—an examiner interview was conducted for the '385 Patent application, after which the USPTO issued a Notice of Allowance on March 26, 2019, without any further Office Actions. *See* EX1002, pp. 130-142. Regardless, CrowdStrike did not pursue licensing or collaboration. EX2002 ¶¶ 9-10. CrowdStrike did not challenge the patent's validity until sued by Skysong.

Skysong filed the Parallel Litigation against CrowdStrike, Inc. and CrowdStrike Holdings, Inc. (collectively, "CrowdStrike" or "Petitioner") on January 31, 2025, in the Western District of Texas, alleging infringement of the Asserted Patents. *See* EX2003, Civil Docket For Case #7:25-cv-00040 at 5. The complaint

was amended on May 16, 2025, to refine the allegations. *Id.* at 7. The case is assigned to Judge David Counts, with referral to Magistrate Judge Derek T. Gilliland. *Id.* at 5. Significant progress includes exchanged initial disclosures; an August 27, 2025, a pretrial conference discussing case status and scheduling; a September 3, 2025, joint motion to amend the scheduling order; and a September 4, 2025, scheduling order. EX2004, *Skysong v. CrowdStrike*, Dkt. No. 55, Scheduling Order. Skysong has served its preliminary infringement contentions, and CrowdStrike's preliminary invalidity contentions are due November 5, 2025. On October 2, 2025, CrowdStrike filed a motion to transfer venue, with venue discovery concluding December 11, 2025. The parties are negotiating an appropriate protective order to govern discovery. Fact discovery opens on February 19, 2026, following the *Markman* hearing.

Key milestones include: joinder of parties by March 18, 2026; amended pleadings by May 27, 2026; claim construction proceedings commencing with the exchange of proposed terms and opening briefs in the lead-up to the *Markman* hearing set for February 18, 2026; fact and expert discovery closing August 26, 2026; dispositive and *Daubert* motions by November 4, 2026; final pretrial conference on January 14, 2027; and jury trial commencing February 1, 2027. *See* EX2004. By the projected institution decision date of February 19, 2026, the parties will have invested significant resources in preparing and exchanging claim construction briefs, with the *Markman* hearing occurring one day earlier, on February 18, 2026, further

highlighting the advanced stage of the litigation and the court’s involvement. *Id.*

CrowdStrike filed this Petition on August 15, 2025, seeking inter partes review of claims 1-17 of the ’385 Patent. *See* Petition for *Inter Partes* Review of U.S. Patent No. 10,313,385 (“Pet.”). The USPTO accorded a filing date of August 19, 2025. The Petition asserts four grounds of unpatentability, all under 35 U.S.C. § 103 for obviousness. *See* Pet. at 4-5.

CrowdStrike has also filed related IPR petitions challenging the other Asserted Patents: IPR2025-01170 (’897 Patent, filed July 25, 2025); IPR2025-01398 (’900 Patent, filed August 25, 2025); IPR2025-01400 (’721 Patent, filed September 12, 2025); and IPR2025-01399 (’831 Patent, filed September 26, 2025). *See* EX2005, Table of CrowdStrike IPRs and Parallel Litigation Schedules.

III. ARGUMENT

An analysis of the *Fintiv* factors, evaluated holistically under the Interim Processes, confirms that institution would inefficiently duplicate the Parallel Litigation, warranting discretionary denial under 35 U.S.C. §§ 314(a) and 324(a). This is particularly compelling under the Director’s recent reclamation of institution authority, which aims to address high institution rates and procedural biases that undermine efficiency. *See* Open Letter. Specifically, the Fortinet trial is set for November 2, 2026, and the CrowdStrike trial for February 1, 2027—both before the projected Final Written Decision date of February 19, 2027.

A. *FINTIV* FACTOR 1 FAVORS DENIAL: PETITIONER HAS NOT REQUESTED A STAY AND EVEN SO, A STAY IS UNLIKELY

Fintiv Factor 1 looks to “whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted.” *Fintiv I* at 5-6. Petitioner has not moved for a stay, and the court has not indicated any intent to grant one *sua sponte*. Courts in the Western District of Texas frequently deny opposed motions to stay pending IPR—particularly before institution or when claim construction / discovery are complete and trial is approaching. *See, e.g., Quantum Imaging, LLC v. Sony Group Corporation et al*, No. 1:23-cv-01212 (W.D. Tex. Dec. 04, 2024) (Gilliland, M.J.) (denying stay); *Yondr, Inc. v. Be Smarter, LLC et al*, No. 1:24-cv-01326 (W.D. Tex. Sep. 16, 2025) (Albright, J.) (denying stay). Given the court’s unlikelihood to stay, parties must proceed in both forums, exacerbating waste. Thus, this factor weighs in favor of discretionary denial.

B. *FINTIV* FACTOR 2 FAVORS DENIAL: TRIAL IN THE RELATED LITIGATION WILL OCCUR BEFORE THE DEADLINE FOR A FINAL WRITTEN DECISION IN THIS IPR

Fintiv Factor 2 looks to “proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision.” *Fintiv I* at 5-6. “If the court’s trial date is earlier than the projected statutory deadline, the Board generally has weighed this fact in favor of exercising authority to deny institution under *NHK*.” *Id.* at 9.

The district court trial is set for February 1, 2027, two weeks before the

projected Final Written Decision on February 19, 2027. This proximity risks duplication and inconsistency, as the court will resolve invalidity first. *NHK Spring*, Paper 8, at 20 (denying where trial precedes Final Written Decision). Moreover, in the co-pending litigation in the Eastern District of Texas against Fortinet, the trial is scheduled for November 2, 2026—even earlier, further emphasizing the inefficiency of instituting this IPR when validity issues will be adjudicated in district court well before any Final Written Decision. EX2006, Civil Docket For Case #2:25-cv-00098 at 5. Recent PTAB decisions emphasize such timing in denying institution. *See, e.g., Samsung Electronics Co., Ltd. v. Headwater Research LLC*, IPR2025-00932, Paper 8 (PTAB Sep. 26, 2025) (denying institution where trial was approximately two months *before* Final Written Decision). Petitioner’s potential arguments about schedule changes are speculative; the order has held firm.

When IPR proceedings cover the same ground as district court litigation, they cease to be an “alternative” and can substantially increase litigation costs. EX2007, Revision to Rules of Practice Before the Patent Trial and Appeal Board, 90 Fed. Reg. 48335, 48336 (proposed Oct. 17, 2025) (to be codified at 37 C.F.R. pt. 42). That is the opposite of what Congress intended. *Id.* Serial or parallel IPR proceedings can also be wasteful, because they consume Office and party resources re-litigating issues that the Office is considering, has already considered, or that are being litigated elsewhere, such as in district court. *Id.*

Thus, this factor also weighs in favor of discretionary denial.

C. *FINTIV* FACTOR 3 FAVORS DENIAL: SIGNIFICANT RESOURCES HAVE BEEN AND WILL CONTINUE TO BE INVESTED IN THE RELATED LITIGATION

Fintiv Factor 3 looks to 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.**” *Fintiv I* at 9 (emphasis added). For example, “if, at the time of the institution decision, the district court has issued substantive orders related to the patent at issue in the petition,” this factor favors denial. *Id.* at 9-10. “Likewise, district court claim construction orders may indicate that the court and parties have invested sufficient time in the parallel proceeding to favor denial.” *Id.* at 10.

As of October 20, 2025, initial disclosures were exchanged, a pretrial conference was held (Aug. 27, 2025), and the scheduling order issued (Sep. 4, 2025). EX2003 at 9. The parties have invested in preparing infringement and invalidity contentions, with CrowdStrike’s preliminary invalidity contentions due November 5, 2025. *See* EX2004. On October 2, 2025, CrowdStrike filed a motion to transfer venue, with a 10-week venue discovery period concluding on December 11, 2025. The parties are negotiating an appropriate protective order to govern discovery. By the projected institution decision date on February 19, 2026, significantly more resources will have been committed: claim construction proceedings will have commenced, with the exchange of proposed terms and opening briefs completed in the lead-up to the *Markman* hearing on February 18, 2026 (one day before

institution); joinder of parties will be due soon after (March 18, 2026); and fact discovery will be well underway. EX2004. This level of investment favors denial. *See Motorola Sols., Inc. v. Stellar, LLC*, IPR2024-01205, Paper 19 (Mar. 28, 2025) (vacating institution where parties served expert reports, filed claim construction briefs, and conducted depositions before institution decision); *cf. Microsoft Corporation v. XI Discovery, Inc.*, IPR2025-00255, Paper 13 (Jun. 25, 2025) (instituting with no trial date and likely stay).

Accordingly, *Fintiv* Factor 3 also weighs in favor of discretionary denial.

D. *FINTIV* FACTOR 4 FAVORS DENIAL: OVERLAPPING ISSUES RAISE SIGNIFICANT CONCERNS OF INEFFICIENCY AND PETITIONER’S STIPULATION DOES NOT MITIGATE THESE CONCERNS

Fintiv Factor 4 looks to “whether all or some of the claims challenged in the petition are also at issue in district court” and whether the “petition includes the same or substantially the same claims, grounds, arguments, and evidence” as the parallel district court case. *Fintiv I* at 12-13. In short, this factor evaluates “concerns of inefficiency and the possibility of conflicting decisions” when substantially identical prior art is submitted in both the district court and the IPR proceeding. *Id.* at 12.

Here, there is substantial overlap between the issues raised in the Petition and those that will be raised in the Parallel Litigation, raising significant concerns of inefficiency. The Petition asserts four grounds of unpatentability under 35 U.S.C. § 103, relying on six prior art references, including *Vallone*, *Oberheide*, *Patsos*,

Roytman, Juels, and Wolff. See Pet. at 4-5. Although CrowdStrike has not yet served its preliminary invalidity contentions (due November 5, 2025), the timing of the district court proceedings provides that these contentions are due well before the projected institution decision on February 19, 2026. EX2004. Given the sheer volume of references asserted in this IPR, it is highly likely that CrowdStrike's invalidity assertions in district court will be largely duplicative and overlapping with the grounds in its petition.¹ This would force the parties, the district court, and the PTAB to address the same validity issues concurrently, risking inconsistent outcomes and wasting resources. See *Fintiv I* at 12-13.

CrowdStrike provided a *Sotera* stipulation, agreeing not to pursue the Petition's grounds in district court if the PTAB institutes review (without subsequently vacating institution). EX1046. However, this conditional stipulation does not mitigate overlap: by the institution decision, CrowdStrike will have served invalidity contentions, the parties will have exchanged claim construction briefs, and the *Markman* hearing will follow one day before on February 18, 2026, with substantial resources already invested in duplicative arguments. The Director has rejected similar conditional or narrow stipulations that fail to eliminate inefficiencies, particularly when the other *Fintiv* factors favor denial. See *Sotera Wireless, Inc. v.*

¹ Patent Owner reserves the right to request permission to file a supplemental brief addressing the specific overlap once Petitioner serves its invalidity contentions.

Masimo Corp., IPR2020-01019, Paper 12, at 18-19 (PTAB Dec. 1, 2020) (precedential); *Motorola*, Paper 19 at 4. The subsequent March 24, 2025, guidance from Chief Administrative Patent Judge Boalick further confirmed a *Sotera* stipulation is not “dispositive by itself.”

As the USPTO has emphasized, such parallel challenges “can add significant expense and delay compared with standalone district court litigation” and undermine the AIA’s intent for IPRs to serve as an “alternative” rather than a duplicate. EX2007 at 2.

E. *FINTIV* FACTOR 5 FAVORS DENIAL: THE PARTIES IN THE RELATED LITIGATION ARE THE SAME

Fintiv Factor 5 looks to “whether the petitioner and the defendant in the parallel proceeding are the same party.” *Fintiv I* at 5-6. Specifically, when “the petitioner and the defendant in the parallel proceeding are the same party, this factor weighs in favor of discretionary denial.” *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 15 (PTAB May 13, 2020) (informative). Here, the Petitioner is a defendant in the parallel litigation. Thus, *Fintiv* Factor 5 also weighs in favor of discretionary denial.

F. *FINTIV* FACTOR 6 FAVORS DENIAL: OTHER CIRCUMSTANCES SHOULD INFLUENCE THE DIRECTOR’S EXERCISE OF DISCRETION

Other circumstances, including the merits of the Petition and additional Interim Processes factors, further weigh against institution. The Director’s

memorandum reinforces this, as reclaiming institution authority seeks to eliminate “the appearance of self-interest” and “perceived referral-signal bias,” promoting efficiency in cases like this where parallel litigation risks duplication. *See* Open Letter.

1. Settled Expectations Weigh Against Institution.

Patent Owner has settled expectations in the validity of the challenged claims, weighing in favor of discretionary denial. Interim Processes at 2.

The '385 Patent has been in force for over six years (issued June 4, 2019) and belongs to a mature patent portfolio with roots dating back to 2014. The Asserted Patents share a common technical field in cybersecurity innovations stemming from ASU government-sponsored research. *See* EX2001, ¶¶ 1-4, 22-44. As the earliest member of this portfolio, the '385 Patent, issued over six years ago on June 4, 2019, first established robust expectations of validity across the related inventions in this field. *See Kahoot! AS v. Interstellar Inc.*, IPR2025-00696, Paper 12 at 2-3 (PTAB July 31, 2025) (denying institution due to settled expectations despite stay). This history strengthens Patent Owner’s reliance, as the core cybersecurity innovations have been public and unchallenged for years, encouraging Skysong and ASU to invest in commercialization without the specter of invalidity threats. *See Kahoot!*, Paper 12 at 2-3 (denying institution due to patent in force for over six years, despite a stay).

Petitioner's actual notice in March 2019 further bolsters this factor. At the RSA Conference, Dr. Shakarian disclosed the AI-driven threat mitigation research underlying the '385 Patent and its family, explicitly informing CrowdStrike representatives of ASU's provisional patents. EX2001, ¶¶ 57-61; EX2002, ¶¶ 7-10. Despite expressing interest in and acknowledging the relevance of the inventions, CrowdStrike did not pursue licensing or collaboration. CrowdStrike did not challenge the patent's validity until sued by Skysong in 2025, over six years later. *See* EX2002, ¶¶ 9-10. Petitioner, with 2019 notice, could have filed an IPR against the '385 Patent by early 2020, but delayed until post-suit. Moreover, after the '385 Patent issued on June 4, 2019, Petitioner could have filed a post-grant review (PGR) within nine months (by March 4, 2020), which allows broader challenges including under 35 U.S.C. §§ 101 and 112, but chose not to do so. This delay, coupled with allegations of incorporating similar features into its products, undermines any claim of surprise and suggests a tactical response to litigation rather than a genuine validity concern. *See iRhythm Techs., Inc. v. Welch Allyn, Inc.*, IPR2025-00363, Paper 10 (PTAB June 6, 2025) (denying institution based on settled expectations from a 2012 issuance and actual notice since 2013).

The patent application underlying the '385 Patent was published on June 1, 2017—over a year and a half before the March 2019 meeting. Given that Dr. Shakarian and his company operate in the same field as CrowdStrike, and were

known to CrowdStrike, it is reasonable to expect that CrowdStrike would have investigated his published invention.

As the USPTO has recognized, such repeated challenges undermine “quiet title” to patents and deter investment, frustrating the AIA’s purpose. EX2007 at 2 (citing H.R. Rep. No. 112-98, at 48). Even strong patents become unreliable under serial scrutiny; for example, a patent with a 70% survival chance in one *de novo* review has less than 50% odds against two or more. *Id.*

2. No Changes In The Law Support Reconsideration Of Patentability.

No changes in the law support reconsideration of the validity of the ’385 Patent claims.

3. The Petition Is Weak And Overly Reliant On Expert Testimony.

The Petition’s unpatentability challenge is weak, supporting denial. The prior art references asserted in the Petition are cumulative to those already considered by the USPTO during prosecution. Five of the six references—*Vallone*, *Oberheide*, *Patsos*, *Roytman*, and *Juels*—were not expressly considered, but they teach concepts substantially similar to the considered art, such as vulnerability detection through exploitation (similar to US20040088565A1), remediation via modified exploits (similar to *Wolff*, US20130198848A1), and quantitative risk assessment for threats and vulnerabilities (similar to US20140137257A1). *See* EX1002 at 88-94. The Petition identifies no material examiner error, and all grounds are based on

obviousness under 35 U.S.C. § 103, with no anticipation grounds under § 102. Under *Advanced Bionics*, when the same or substantially the same prior art was before the Office, a petitioner must show that the Office erred in a manner material to patentability. IPR2019-01469, Paper 6 at 7-10. The Petition does not address this requirement, nor does it allege any error in the Examiner's analysis. Instead, it merely reasserts cumulative references already effectively considered. This failure distinguishes this case from those where discretionary denial was rejected due to strong merits or overlooked art. *See Advanced Bionics*, Paper 6, at 13-20; *Anthony, Inc. v. ControlTec, LLC*, IPR2025-00559, Paper 12 (PTAB Jul. 16, 2025); *Tesla, Inc. v. Charge Fusion Technologies, LLC*, IPR2025-00152, Paper 11 (PTAB Jun. 12, 2025).

The Petition's weakness is further evident in its heavy reliance on expert testimony, exceeding 330 paragraphs and approximately 29,000 words, to prop up claim constructions, motivations to combine, and obviousness conclusions. *See* EX1003. Such extensive reliance, or reasonable expert disagreement on dispositive issues, suggests that the questions are better resolved in an Article III court, weighing against institution as a matter of efficiency. *See* FAQs for Interim Processes for PTAB Workload Management, #22.

4. Compelling National Security Interests Weigh Against Institution

Compelling national security interests weigh against institution. Interim

Processes at 2. The '385 Patent advances U.S. cybersecurity priorities through a data-driven game theoretic framework for mitigating cyber threats, including modeling attackers based on exploit market data actively mined from dark web sources to develop defensive strategies. *See* EX1001 at 2:62-3:35. These capabilities directly support national defense objectives by enhancing the protection of critical infrastructure from cyberattacks. *See* EX2008, Exec. Order No. 14,028 §4.

Notably, Dr. Shakarian's research underlying the '385 Patent was sponsored by the Office of the Director of National Intelligence through the Intelligence Advanced Research Projects Activity (IARPA) under the Cyber-Attack Automated Unconventional Sensor Environment (CAUSE) program, which provided approximately \$1 million in grant funding from 2016 to 2019 and focused on developing automated tools to predict cyber attacks using unconventional data sources. EX2002, ¶ 5. Closely related, Dr. Shakarian also led projects under the Naval Enterprise Partnership Teaming with Universities for National Excellence (NEPTUNE) program in the Office of Naval Research (ONR), including "Reasoning about Cyber-Attribution" from 2015 to 2018 and "Next Generation Energy Technologies and Systems for Civilian and Military Applications" from 2016 to 2019, which emphasized technologies deemed mission critical to national cybersecurity efforts, such as attributing cyber threats and integrating AI for military and civilian applications. *Id.* ASU's research, often supported by such federal grants

(e.g., additional awards from AFOSR, DARPA, IARPA, ARO, and ONR totaling over \$7 million), facilitates academia-industry transfers that bolster national defenses. *Id.* Dr. Shakarian, the Patent’s lead inventor, brings deep expertise in this area as a West Point graduate with a Ph.D. in computer science, a decorated U.S. Army veteran who served two combat tours in Iraq (earning the Bronze Star and Army Commendation Medal for valor), a former assistant professor in artificial intelligence and cybersecurity at West Point, and a DARPA fellow. *Id.* at ¶¶ 2-3. His book, *Introduction to Cyber Warfare a Multidisciplinary Approach*, is utilized to this day as required reading in military cyber warfare schools across the U.S. armed forces, including the Naval Postgraduate School, further tying the patent’s innovations to national defense. *Id.* at ¶ 3.

President Biden’s 2021 Executive Order on Improving the Nation’s Cybersecurity underscores the urgency of enhancing threat intelligence and predictive capabilities to safeguard U.S. interests. The Order mandates federal agencies to prioritize proactive cybersecurity measures, aligning with the ’385 Patent’s focus on early detection and mitigation. *See* Exec. Order No. 14,028 §7(b). Institution risks undermining these goals by potentially invalidating patents that foster such advancements, deterring investment in ASU-derived technologies that benefit the public and the national defense sector. As the USPTO has noted, repeated patentability challenges weaken IP rights, posing “a threat to America’s continued

technological leadership” in national security-critical areas like cybersecurity. EX2007 at 3.

PTAB precedent requires more than speculative assertions to justify discretionary denial on national security grounds. *Taiwan Semiconductor Mfg. Co. v. Marlin Semiconductor Ltd.*, IPR2025-00847, Paper 11 (PTAB Sep. 3, 2025). Here, the ’385 Patent’s concrete contributions to threat prediction provide that specificity, tied directly to Exce. Order’s emphasis on similar technologies. The patent’s demonstrated cybersecurity innovation weighs in favor of denial, and when considered with factors such as settled expectations and weak merits, further supports non-institution.

V. CONCLUSION

In sum, at least five *Fintiv* Factors weigh in favor of discretionary denial. Furthermore, additional relevant considerations further weigh strongly in favor of discretionary denial. Thus, considered as a whole, the relevant facts all weigh in favor of exercising discretionary denial. In light of the Director’s reclamation of institution authority to “re-align” with the AIA’s clear language and intent, denial here would enhance transparency and public trust by avoiding inefficient overlap with advanced district court proceedings. *See Open Letter*. For the foregoing reasons, Patent Owner respectfully requests discretionary denial of the Petition.

CERTIFICATE OF COMPLIANCE

Under the provisions of 37 CFR § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Patent Owner's Discretionary Denial Brief totals 4,492 which is less than the 14,000 words allowed under 37 CFR § 42.24(b)(1).

Respectfully submitted,

Dated: October 20, 2025

By: /Jay P. Kesan/
Jay P. Kesan
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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned certifies that on the date indicated below, a complete and entire copy of this submission was served by email to Petitioner's counsel via the email addresses of record as provided in Petitioner's Service Information in the August 15, 2025 Petition submission.

Respectfully submitted,

Dated: October 20, 2025

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