

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CROWDSTRIKE, INC.

Petitioner

v.

OPEN TEXT INC.

Patent Owner

Case IPR2023-00289

Patent No. 8,418,250

PATENT OWNER'S PRELIMINARY RESPONSE

Mail Stop PATENT BOARD
Patent Trial and Appeal Board
U.S. Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	THE BOARD SHOULD EXERCISE ITS DISCRETION TO DENY INSTITUTION UNDER 35 U.S.C. § 314(a)	4
A.	<i>Fintiv</i> Factor 1: The District Court Has Not Granted A Stay, And The Evidence Indicates A Stay Would Not Be Granted	5
B.	<i>Fintiv</i> Factor 2: The District Court Trial Is Expected To Take Place Around The Same Time As The Projected Statutory Deadline	13
C.	<i>Fintiv</i> Factor 3: The Parties Will Have Invested Significant Resources In The Parallel District Court Proceeding.....	14
D.	<i>Fintiv</i> Factor 4: The Issues In The Petition And District Court Proceeding Significantly Overlap	17
E.	<i>Fintiv</i> Factor 5: Both Parties Are Party To The Parallel Proceeding.....	19
F.	<i>Fintiv</i> Factor 6: Petitioner’s Grounds Do Not Rise To The Level Of “Compelling Evidence of Unpatentability”	19
III.	THE ’250 PATENT	21
A.	Inadequacy of the Prior Art & The Need for Improved Malware Detection.....	21
B.	Innovations of the ’250 Patent.....	23
C.	Claim Construction.....	26
1.	“automatically” (claims 1, 13, 25)	26
2.	Additional Terms At Issue In The District Court	29
D.	Level of Ordinary Skill in the Art	29

IV.	THE BOARD SHOULD EXERCISE ITS DISCRETION TO DENY INSTITUTION UNDER 35 U.S.C. § 325(d).....	30
A.	The Same Or Substantially The Same Prior Art And Arguments Were Previously Presented To The Office.....	31
B.	Petitioner Makes No Claim that the Examiner Erred During Prosecution	36
V.	OVERVIEW OF THE RELEVANT PRIOR ART	37
A.	Overview of Kester.....	37
B.	Overview of Honig	43
VI.	THE CHALLENGED CLAIMS ARE PATENTABLE	45
A.	The Petition Fails To Establish That Kester Is Analogous Art.....	47
1.	Kester is not in the same field of endeavor.....	48
2.	Kester is not reasonably pertinent to the ’250 patent.....	51
B.	The Petition Fails To Establish That The Combination of Kester and Honig Renders Obvious Every Limitation of The Challenged Claims.....	54
1.	Kester does not disclose or render obvious “ <i>automatically generating a mask</i> ”	55
2.	Petitioner fails to show that Kester in view of Honig renders obvious “ <i>automatically generating a mask</i> ”	57
3.	A POSITA would neither look to Honig nor be motivated to modify Kester in view of Honig.....	64
4.	Petitioner’s Grounds Fail To Render Obvious All Dependent Claims.....	70
C.	Other Limitations Not Addressed.....	71
D.	There Are Secondary Objective Indicia Of Nonobviousness	71

VII. CONCLUSION.....	71
----------------------	----

TABLE OF AUTHORITIES

	Page(s)
Cases	
<i>Advanced Bionics LLC v. MED-EL Elektromedizinische Gerate GmbH,</i> IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020).....	<i>passim</i>
<i>Apple Inc. v. Fintiv, Inc.,</i> IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020).....	<i>passim</i>
<i>Becton, Dickinson and Co. v. B. Braun Melsungen AG,</i> IPR2017-01586, Paper 8(PTAB Dec. 15, 2017)	31, 36
<i>In re Clay,</i> 966 F.2d 656 (Fed. Cir. 1992)	51, 53
<i>Commscope Techs. LLC v. Dali Wireless, Inc.,</i> IPR2022-01242, Paper 23 (PTAB Feb. 27, 2023).....	20
<i>Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.,</i> 800 F.3d 1375 (Fed. Cir. 2015)	46
<i>Google LLC v. EcoFactor, Inc.,</i> IPR2021-00454, Paper 9 (PTAB July 22, 2021).....	18
<i>Harmonic Inc. v. Avid Tech., Inc.,</i> 815 F.3d 1356 (Fed. Cir. 2016)	46
<i>Intellectual Ventures I LLC v. Hewlett Packard Enter. Co.,</i> No. 6:21-cv-00596-ADA (W.D. Tex. Dec. 22, 2022).....	7
<i>In re Klein,</i> 647 F.3d 1343 (Fed. Cir. 2011)	47, 52
<i>mCom IP, LLC v. Cisco Sys., Inc.,</i> No. 6:22-00261-ADA (W.D. Tex. Oct. 20, 2022).....	7
<i>Motorola Mobility LLC v. Ironworks Patents, LLC,</i> IPR2021-00421, Paper 11 (PTAB July 22, 2021).....	6, 12

Patent Owner’s Preliminary Response to
Petition for *Inter Partes* Review
Patent No. 8,418,250

<i>N. Telecom Ltd. v. Samsung Elec. Co.</i> , 215 F.3d 1281 (Fed. Cir. 2000)	28
<i>Nokia of Am. Corp. v. Good Kaisha IP Bridge 1</i> , IPR2022-00755, Paper 9 (PTAB Nov. 2, 2022).....	15, 17, 19
<i>NXP USA, Inc. v. Impinj, Inc.</i> , PGR2022-00005, Paper 20 (PTAB Aug. 25, 2022)	14, 117
<i>OpenSky Indus., LLC v. VLSI Tech. LLC</i> , IPR2021-01064, Paper 102 (PTAB Oct. 4, 2022).....	20
<i>Samsung Elecs. Co. v. Clear Imaging Research LLC</i> , IPR2020-01399, Paper 13 (PTAB Feb. 3, 2021).....	5, 6, 12
<i>Sand Revolution II, LLC v. Cont’l Intermodal Grp.-Trucking LLC</i> , IPR2019-01393, Paper 24 (PTAB Jun 16 2020)	5, 18
<i>Smith & Nephew, Inc. v. Hologic, Inc.</i> , 721 F. App’x 943 (Fed. Cir. 2018).....	53
<i>Ex Parte Sokoly</i> , No. 2019-006703, 2020 WL 5587537 (PTAB Sept. 15, 2020).....	47
<i>Sonrai Memory Ltd. v. Kingston Tech. Co., Inc.</i> , No. 6:21-cv-1284-ADA (W.D. Tex. Oct. 18, 2022)	7
<i>Thorne Research, Inc. v. Trustees of Dartmouth College</i> , IPR2021-00491, Paper 18 (PTAB Aug. 12, 2021).....	35
<i>Vizio, Inc. v. Maxell, Ltd.</i> , IPR2022-01459, Paper 7 (PTAB Apr. 11, 2023)	19
<i>Vizio, Inc. v. Nichia Corp.</i> IPR2017-00552, Paper 9 (PTAB July 7, 2017)	50
Statutes	
35 U.S.C. § 314(a)	1, 4, 16
35 U.S.C. § 325(d)	2, 30, 35, 36

AMERICA INVENTS ACT, Congress. H. Rept. 112-98 Part 1 (June 1, 2011).....	1
--	---

Other References

Memo, <i>Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation</i> (June 21, 2022)	12, 20
--	--------

EXHIBIT LIST

Exhibit	Description
2001	Declaration of Professor Nenad Medvidovic, Ph.D.
2002	<i>Curriculum Vitae</i> of Professor Nenad Medvidovic, Ph.D.
2003	<i>Webroot, Inc. and Open Text Inc., v. CrowdStrike, Inc. and CrowdStrike Holdings, Inc.</i> , Case No. 6:22-cv-00241-ADA-DTG, First Amended Complaint for Patent Infringement, Dkt. 60 (W.D. Tex., Sept. 8, 2022) (excerpted)
2004	<i>Sonrai Memory Ltd. v. Kingston Tech. Co. and Kingston Tech. Corp.</i> , Case No. 6:21-cv-1284-ADA, Order Denying Kingston Tech. Co. and Kingston Tech. Corp.’s Opposed Motion to Stay Pending Resolution of <i>Inter Partes</i> Review, Dkt. 94 (W.D. Tex., Oct. 18, 2022)
2005	<i>mCom IP, LLC v. Cisco Systems, Inc.</i> , Case No. 6:22-cv-00261-ADA, Order Denying Defendant’s Motion to Stay Pending <i>Inter Partes</i> Review, Dkt. 42 (W.D. Tex., Oct. 20, 2022)
2006	<i>Intellectual Ventures I LLC et al. v. Hewlett Packard Enterprise Co.</i> , No. 6:21-cv-00596-ADA, Order Denying Hewlett Packard Enterprise Company’s Opposed Motion to Stay Pending Resolution of <i>Inter Partes</i> Review, Dkt. 104 (W.D. Tex., Dec. 22, 2022)
2007	<i>Webroot, Inc. and Open Text Inc., v. AO Kaspersky Lab. et al.</i> , Case No. 6:22-cv-243-ADA-DTG, Dec. 9, 2022 Transcript of Motions Hearing, Dkt. 133 (W.D. Tex. Dec. 15, 2022) (excerpted)
2008	Dani Kass, “Catching Up On Patent Litigation With Judge Albright” (Law360 Mar. 14, 2023); https://www.law360.com/pulse/articles/1582438/print?section=pulse/courts
2009	<i>Webroot, Inc. and Open Text Inc., v. AO Kaspersky Lab. et al.</i> , Case No. 6:22-cv-243-ADA-DTG, Order Granting Fourth Amended Scheduling Order, Dkt. 160 (W.D. Tex. Jan. 22, 2023)

Patent Owner's Preliminary Response to
Petition for *Inter Partes* Review
Patent No. 8,418,250

Exhibit	Description
2010	<i>Webroot, Inc. and Open Text Inc., v. Sophos Ltd.</i> , Case No. 6:22-cv-00240-ADA-DTG, Minute Entry for proceedings held before Judge Derek T. Gilliland, Notice of Electronic Filing, Dkt. 102 (W.D. Tex., Mar. 7, 2023)
2011	<i>Webroot, Inc. and Open Text Inc., v. AO Kaspersky Lab. et al.</i> , Case No. 6:22-cv-243-ADA-DTG, Scheduling Order, Dkt. 39 (W.D. Tex. Aug. 17, 2022)
2012	<i>Webroot, Inc. and Open Text Inc., v. AO Kaspersky Lab. et al.</i> , Case No. 6:22-cv-243-ADA-DTG, Claim Construction Order, Dkt. 236 (W.D. Tex. Mar. 16, 2023)
2013	<i>Webroot, Inc. and Open Text Inc., v. Sophos Ltd.</i> , Case No. 6:22-cv-00240-ADA-DTG, Defendant Sophos Ltd.'s Preliminary Invalidity Contentions (W.D. Tex., Sept. 13, 2022) (excerpted)
2014	<i>Webroot, Inc. and Open Text Inc., v. Trend Micro, Inc.</i> , Case No. 6:22-cv-00239-ADA-DTG, Defendant's Preliminary Invalidity Contentions (W.D. Tex., Sept. 13, 2022) (excerpted)
2015	<i>Ex Parte</i> James M. Brennan, et al., Appeal 2021-003606, Application 15/285,875, Decision On Appeal Statement of the Case (PTAB Jul. 26, 2022)
2016	<i>Webroot, Inc. and Open Text Inc., v. CrowdStrike, Inc. and CrowdStrike Holdings, Inc.</i> , Case No. 6:22-cv-00241-ADA, Complaint for Patent Infringement, Dkt. 1 (W.D. Tex., Mar. 4, 2022)
2017	<i>Webroot, Inc. and Open Text Inc., v. AO Kaspersky Lab. et al.</i> , Case No. 6:22-cv-243-ADA-DTG, Plaintiffs' SurReply Claim Construction Brief, Dkt. 147 (W.D. Tex. Jan. 6, 2023) (excerpted)

Open Text Inc. ("Patent Owner") submits this Preliminary Response to the Petition of CrowdStrike, Inc. ("Petitioner") seeking *inter partes* review ("IPR") of the U.S. Patent No. 8,418,250 ("the '250 patent").

I. INTRODUCTION

The Board should decline to institute IPR of the '250 patent because the petition duplicates the parties' district court litigation efforts, is cumulative of evidence the Office already considered during the examination of the '250 patent, and is otherwise a weak petition that relies on non-analogous prior art as a primary reference in all grounds.

First, the Board should exercise its discretion to deny institution under 35 U.S.C. § 314(a). IPR proceedings serve their intended purpose when used to "limit unnecessary and counterproductive litigation costs." H.R. Rep. No. 112-98, pt. 1, at 40 (2011, 2011 U.S.C.C.A.N. 67, 69 (post-grant reviews were meant to be "quick and cost effective alternatives to litigations"). Instituting IPR of the '250 patent would have the opposite effect. The '250 patent is involved in *four* parallel litigation proceedings—all now consolidated (with an additional fifth case) into one massive proceeding, which collectively involves fourteen other patents asserted by Patent Owner and twenty-two additional patents asserted against Patent Owner. Petitioner has petitioned for review of only five of the twelve patents asserted against it. And

while other defendants have sought IPR of three additional patents, even if all IPRs are instituted, the claims of at least four patents asserted against Petitioner would remain unchallenged at the PTAB. No defendant has sought IPR of all of the patents asserted against it. Collectively, this means that—regardless of whether the Board grants institution—the district court case will proceed against all defendants and include all asserted patents, including the '250 patent.

Petitioner waited nearly ten months to file its petition, and the district court proceedings are now well underway. Contentions have been exchanged. The district court issued its claim construction rulings for the '250 patent and eight other patents on March 16, 2023. As U.S. Magistrate Judge Gilliland noted during a December 9, 2022 hearing, this is “a phenomenal case that I’m hoping one day maybe people will write songs about because it is about as complicated as you’re going to get with patent cases.” (EX-2007 52.) IPR proceedings here would not be a shortcut, but rather a heavier load that the parties must carry to the finish line. The Board should decline to institute on this basis alone.

Second, the Board should deny institution under 35 U.S.C. § 325(d) because Petitioner presents substantially the same art and even the same arguments previously considered by the Office during prosecution of the '250 patent. In particular, the applicant previously argued to the Office why a POSITA would never be

motivated to automate the process disclosed in Kester—an argument Petitioner fails to acknowledge or address. Petitioner essentially asks the Board to reconsider whether POSITA would be motivated to automate Kester's process without explaining why the Office got it wrong the first time. Moreover, Petitioner fails to address the applicant's arguments as to other limitations and simply relies on the same Kester disclosure over which the Office allowed the '250 patent to issue.

Finally, the Board should deny institution because Petitioner fails to demonstrate a reasonable likelihood that it will prevail on the merits. All grounds rely on Kester as a primary reference, which is non-analogous to the '250 patent. Kester is not directed to the determination of whether a file is malware or safe and, in fact, embodies the very same problems that the '250 patent sought to solve. Furthermore, all grounds rely on automating a step in Kester by incorporating Honig's "model generator," which would still not disclose *automatically generating a mask*. And no POSITA would be motivated to make such a modification when it would significantly reduce Kester's capabilities and render Kester's goals for its system unattainable.

Patent Owner respectfully requests that the Board deny the petition.

II. THE BOARD SHOULD EXERCISE ITS DISCRETION TO DENY INSTITUTION UNDER 35 U.S.C. § 314(a)

Efficiency, fairness, integrity of the system, and the merits support the Board's exercise of its discretionary denial authority under 35 U.S.C. § 314(a). Seeking to minimize duplication of work, the Board has set forth non-exclusive factors for determining whether to deny a petition in view of parallel litigation (i.e., the "*Fintiv* factors"). See *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential).

The *Fintiv* factors weigh heavily in favor of discretionary denial in this case. The likelihood of a stay of the co-pending district court litigation is extremely low because Petitioner has petitioned for review of only five of the twelve patents asserted against it and because the '250 patent is currently asserted against four defendants in a now-consolidated case in which the claims have already been construed and discovery is well under way. Petitioner's narrow stipulation does not extend to all of its co-defendants, who assert the same prior art cited in the petition, meaning the district court will litigate and resolve the same issues raised in this proceeding around the same time as the statutory deadline for a final written decision.

A. *Fintiv* Factor 1: The District Court Has Not Granted A Stay, And The Evidence Indicates A Stay Would Not Be Granted

Fintiv factor 1, which considers the likelihood of a stay in parallel district court litigation, weighs strongly in favor of the Board exercising its discretionary denial authority. No stay has been requested or ordered in the district court, and Petitioner's only evidence in support of this factor is its non-committal statement that it "***may*** seek a stay." (Petition 65 (emphasis added¹)). However, the circumstances and timing of the district court case, as well as the publicly stated position of the district court judge, show that no such stay would be granted.

Petitioner mischaracterizes *Sand Revolution*, suggesting this factor can only either favor institution or be neutral because the Board has indicated that it "will not attempt to predict" how district courts will proceed. (Petition 69 (citing *Sand Revolution II, LLC v. Cont'l Intermodal Grp.-Trucking LLC*, IPR2019-01393, Paper 24 at 7 (PTAB Jun 16 2020) (informative)).) But in *Sand Revolution* the Board found this factor neutral, noting "***the absence of specific evidence.***" *Sand Revolution II*, IPR2019-01393, Paper 24 at 7.

Where there ***is***, in fact, specific evidence that a stay is unlikely, the Board has found factor 1 to weigh ***in favor*** of discretionary denial. In *Samsung Elecs. Co. v.*

¹ All emphasis throughout this response has been added unless otherwise noted.

Clear Imaging Research LLC, the Board relied on *Fintiv* in explaining that factor 1 may weigh in favor of denial where there is evidence that the district court is unwilling “to avoid duplicative efforts and await the PTAB’s final resolution of the patentability issues...before proceeding with the parallel litigation.” IPR2020-01399, Paper 13 at 11-12 (PTAB Feb. 3, 2021). While the district court judge denied an earlier motion to stay without prejudice, indicating the petitioner was “free to re-urge” its request should the Board institute, the Board found that the judge’s statements regarding prejudicial delay and the expenditure of resources showed he was unlikely to grant a stay. *Id.* at 10-13. Accordingly, even though the petitioner could still seek a stay, the Board found that factor 1 “weigh[ed] slightly in favor of exercising [] discretion to deny institution.” *Id.* at 12.

In *Motorola Mobility LLC v. Ironworks Patents, LLC*, the Board similarly found that factor 1 weighed in favor of denying institution despite the absence of a stay motion. IPR2021-00421, Paper 11 at 7-8 (PTAB July 22, 2021). Specifically, at that stage of the parallel case, the Northern District of Illinois’s scheduling guidelines only allowed a motion to stay pending IPR under “exceptional circumstances,” thus indicating that it was unlikely the district court would grant a motion to stay. *Id.* at 7-8.

There is specific evidence that a stay would not be granted here. Patent Owner asserts twelve patents, including the '250 patent, against Petitioner in Case No. 6:22-cv-00241 in the U.S. District Court for the Western District of Texas ("WDTX"), which is in front of Judge Alan Albright. (EX-2003 10-35.) First, Judge Albright has explicitly stated: "My logic from the beginning was that there's no unfairness to either side by not staying a case for the PTAB when I can try the case as quickly as they can resolve it.... And so far, I think that's proven to be true." (EX-2008 3.) As addressed below, the median time-to-trial in WDTX would result in a trial just before the final written decision would be due—i.e., this is exactly the circumstance that Judge Albright has indicated is undeserving of a stay.

Second, Judge Albright's case record shows issue simplification to be "the most important factor" to his considerations. *See, e.g.*, EX-2004, *Sonrai Memory Ltd. v. Kingston Tech. Co., Inc.*, No. 6:21-cv-1284-ADA, slip op. at *4-5 (W.D. Tex. Oct. 18, 2022) (denying stay following institution because issue simplification was the "most important factor" and the court had already held a *Markman* hearing and "expended significant resources"); EX-2005, *mCom IP, LLC v. Cisco Sys., Inc.*, No. 6:22-00261-ADA, slip op. at *5 (W.D. Tex. Oct. 20, 2022) (finding "simplification is not likely" where the IPR did not challenge all asserted claims); EX-2006, *Intellectual Ventures I LLC v. Hewlett Packard Enter. Co.*, No. 6:21-cv-00596-ADA, slip

op. at * 7 (W.D. Tex. Dec. 22, 2022) (denying stay following institution, as even IPR estoppel would not simplify the invalidity case).

As discussed below, Petitioner's IPR would not simplify the issues in the district court, which already construed the claims of the '250 patent and which will consider the same patent and same prior art, even if this proceeding is instituted. Petitioner has only challenged five of the twelve patents Patent Owner asserts against it in the district court—ten of which are unrelated to the '250 patent. Patent Owner has asserted the '250 patent in cases against three other defendants—cases which the district court has consolidated with the parallel case between Petitioner and Patent Owner and with one more case which does not include the '250 patent. While other defendants have petitioned for IPR of three additional patents, the claims of at least four patents asserted against Petitioner would remain unchallenged at the PTAB even if all pending petitioners were instituted.

The chart below summarizes the asserted patents, defendants, and pending PTAB petitions:

Patent	Kaspersky	CrowdStrike	Forcepoint	Sophos	Trend Micro
8,418,250	X	X		X	X

Patent	Kaspersky	CrowdStrike	Forcepoint	Sophos	Trend Micro
<i>IPRs</i>		X		X^2	X^3
8,726,389	X	X	X	X	X
<i>IPRs</i>		X^4		X^5	
10,599,844	X	X	X	X	X
<i>IPRs</i>				X^6	X^7
9,413,721			X	X	
<i>IPRs</i>				X^8	

² *Sophos Ltd. v. Webroot Inc.*, IPR2023-00699, Paper 1 (Mar. 8, 2023).

³ *Trend Micro Incorporated v. Webroot Inc.*, IPR2023-00655, Paper 1 (Mar. 2, 2023).

⁴ *CrowdStrike, Inc. v. Webroot Inc.*, IPR2023-00556, Paper 1 (Feb. 17, 2023).

⁵ *Sophos Ltd. v. Webroot Inc.*, IPR2023-00633, Paper 1 (Mar. 2, 2023).

⁶ *Sophos Ltd. v. Webroot Inc.*, IPR2023-00528, Paper 1 (Feb. 7, 2023).

⁷ *Trend Micro Incorporated v. Webroot Inc.*, IPR2023-00662, Paper 1 (Mar. 3, 2023).

⁸ *Sophos Ltd. v. Webroot Inc.*, IPR2023-00491, Paper 1 (Jan. 20, 2023).

Patent Owner's Preliminary Response to
Petition for *Inter Partes* Review
Patent No. 8,418,250

Patent	Kaspersky	CrowdStrike	Forcepoint	Sophos	Trend Micro
9,578,045	X	X		X	X
<i>IPRs</i>		<i>X⁹</i>			<i>X¹⁰</i>
10,257,224	X	X		X	X
<i>IPRs</i>		<i>X¹¹</i>			<i>X¹²</i>
10,284,591	X	X		X	X
<i>IPRs</i>		<i>X¹³</i>			<i>X¹⁴</i>
8,856,505	X	X		X	X

⁹ *CrowdStrike, Inc. v. Webroot, Inc.*, IPR2023-00124, Paper 1 (Nov. 30, 2022).

¹⁰ *Trend Micro Incorporated v. Webroot Inc.*, IPR2023-00677, Paper 1 (Mar. 6, 2023).

¹¹ *CrowdStrike, Inc. v. Webroot, Inc.*, IPR2023-00126, Paper 1 (Oct. 31, 2022).

¹² *Trend Micro Incorporated v. Webroot Inc.*, IPR2023-00657, Paper 1 (Mar. 3, 2023).

¹³ *CrowdStrike, Inc. v. Webroot Inc.*, IPR2022-01522, Paper 1 (Sept. 30, 2022).

¹⁴ *Trend Micro Incorporated v. Webroot Inc.*, IPR2023-00692, Paper 1 (Mar. 7, 2023).

Patent Owner's Preliminary Response to
Petition for *Inter Partes* Review
Patent No. 8,418,250

Patent	Kaspersky	CrowdStrike	Forcepoint	Sophos	Trend Micro
<i>IPRs</i>					
8,181,244		X		X	X
<i>IPRs</i>					
8,201,243	X	X	X	X	X
<i>IPRs</i>				X ¹⁵	
8,719,932	X	X	X	X	X
<i>IPRs</i>				X ¹⁶	
11,409,869	X	X	X	X	X
<i>IPRs</i>					
8,763,123		X		X	
<i>IPRs</i>					
8,438,386			X		
<i>IPRs</i>			X ¹⁷		

¹⁵ *Sophos Ltd. v. Webroot Inc.*, IPR2023-00731, Paper 1 (Apr. 4, 2023).

¹⁶ *Sophos Ltd. v. Webroot Inc.*, IPR2023-00732, Paper 1 (Apr. 4, 2023).

¹⁷ *Forcepoint LLC v. Webroot Inc.*, IPR2023-00784, Paper 1 (Mar. 31, 2023).

Patent	Kaspersky	CrowdStrike	Forcepoint	Sophos	Trend Micro
10,025,928			X		
<i>IPRs</i>			<i>X</i> ¹⁸		

Judge Albright is unlikely to stay the entire consolidated case due to the large number of claims and counterclaims that are unrelated to the '250 patent. “Unlike many of his peers, Judge Albright almost never stays proceedings to let the PTAB make its decision first.” (EX-2008 2.) Judge Albright would be even less inclined to stay Petitioner’s case while three other cases proceed through the same validity inquiries regarding the '250 patent. A stay would result in unnecessary complexity and potentially require the district court to duplicate its own proceedings regarding the '250 patent.

Accordingly, this factor weighs strongly in favor of discretionary denial. *Sam-sung*, IPR2020-01399, Paper 13 at 11-12; *Motorola*, IPR2021-00421, Paper 11 at 7-8.

¹⁸ *Forcepoint LLC v. Webroot Inc.*, IPR2023-00786, Paper 1 (Mar. 31, 2023).

B. *Fintiv* Factor 2: The District Court Trial Is Expected To Take Place Around The Same Time As The Projected Statutory Deadline

Fintiv factor 2, which considers the timing of the district court trial and final written decision dates, is neutral. While Petitioner focuses on the scheduled trial date and speculation that such trial date is allegedly likely to be delayed, the Director has counselled median time-to-trial statistics are more appropriate. Memo, *Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation* (June 21, 2022) (“Discretionary Denial Memo”). As noted in one of Petitioner’s other petitions, WDTX’s median time-to-trial as of June 2022 is 28.3 months (IPR2022-01522, Paper 1 at 65 (Sept. 30, 2022)), indicating a trial by mid-July 2024, which is consistent with the currently scheduled trial date of August 19, 2024. (EX-2009 6.) Should the Board institute, its final written decision deadline would be July 26, 2024, shortly after WDTX’s median time-to-trial and less than one month before the scheduled trial date.

Petitioner’s assertion that delay is likely due to case complexity is unsupported by evidence. Petitioner’s transfer motion and motion to stay pending a

Federal Circuit decision were both denied on March 7, 2023.¹⁹ Furthermore, uncertainty in a trial date, itself, does not weigh against exercising discretion. *NXP USA, Inc. v. Impinj, Inc.*, PGR2022-00005, Paper 20 at 8 (PTAB Aug. 25, 2022). The Board has indicated that where a “court’s trial date is at or around the same time as the projected statutory deadline or even significantly after the projected statutory deadline, the decision whether to institute will likely implicate other factors discussed herein, such as the resources that have been invested in the parallel proceeding.” *Fintiv*, IPR2020-00019, Paper 11 at 9. As discussed below, the parties have invested significant resources in the parallel proceeding over the last 13 months. Accordingly, Factor 2 is neutral.

C. *Fintiv* Factor 3: The Parties Will Have Invested Significant Resources In The Parallel District Court Proceeding

Fintiv factor 3, which considers the resources invested in the parallel district court proceeding, weighs strongly in favor of denying institution.

Petitioner wrongly limits its analysis of the parties’ investment to the stage of proceedings at the time the petition was filed, but *Fintiv* counsels consideration of

¹⁹ EX-2010, Minute Entry, *Webroot, Inc. et al v. Sophos LTD*, Case No.: 6:22-cv-00240-ADA-DTG (W.D. Tex. March 7, 2023).

investment at the time of the institution decision. *Fintiv*, IPR2020-00019, Paper 11 at 9-10. ***“If, at the time of the institution decision, the district court has issued substantive orders related to the challenged patent, such as a claim construction order, this fact weighs in favor of denial.”*** *Nokia of Am. Corp. v. Good Kaisha IP Bridge 1*, IPR2022-00755, Paper 9 at 11 (PTAB Nov. 2, 2022) (citing *Fintiv*, Paper 11 at 9-10).

The parties have invested significant resources over the last 13 months. The Court issued its claim construction order for the '250 patent more than a month ago, on March 16, 2023. (EX-2012.) The parties long ago exchanged contentions for the '250 patent, in July 2022 and September 2022, respectively, and fact discovery on the '250 Patent is already underway. (EX-2009 4.)

Having the Board duplicate substantive analysis of the '250 patent promotes the same inefficiency *Fintiv* sought to avoid. *Fintiv*, IPR2020-00019, Paper 11 at 9. Indeed, the proposed construction of “automatically” that Petitioner and its expert apply in this proceeding now conflicts with the district court’s claim construction of “automatically.” (*Compare* EX-2012 4 *with* Petition 8.) The district court’s claim construction is appealable, and Petitioner has not indicated whether it will waive its appeal and abandon the claim construction it pressed in the district court and its

petition. This already-existing conflict further underscores why the Board should deny institution under Section 314(a). *Fintiv*, Paper 11 at 9-10.

Petitioner delayed almost ten months after receiving Patent Owner's March 4, 2022 complaint, five-and-a-half months after receiving Patent Owner's infringement contentions, and almost four months after serving its invalidity contentions before filing its petition. (EX-2011 1-2.) Petitioner's petitions filed on four other patents asserted in WDTX were filed nearly seven months, nine months, ten months, and twelve months after the complaint, respectively.²⁰ Petitioner offers no explanation for its delay and, thus, *Fintiv* indicates that this factor weighs even more strongly in favor of denial. *Fintiv*, IPR2020-00019, Paper 11 at 11-12.

While *Fintiv* directs consideration of the parties' (and the court's) investment at the time the institution decision is made, given the proximity of the expected trial date to the Board's final written decision ("FWD"), it is also worth noting the significant resources that will be invested in litigating the '250 patent on two fronts

²⁰ The petitions filed by Petitioner's Codefendants, which cover some of the same patents challenged by CrowdStrike, as well as others not asserted against CrowdStrike, were all filed more than ten-and-a-half months after the March 4, 2022 complaint. *See* n.2-18, *supra*.

should IPR be instituted. *NXP*, PGR2022-00005, Paper 20 at 7 (A petitioner's "argument for a prospective end of overlapping effort at some future date does not obviate the duplicative efforts that will occur during the [] duration of the *inter partes* review."). A FWD, here, would do little to reduce inefficiencies when issued concurrently with the district court trial. By then, the parties will have already invested significant resources in and concluded claim construction, fact discovery, expert discovery, dispositive motions, and a significant portion of if not all of trial preparation. (EX-2009 5-6.)

The WDTX litigation will move forward and resolve the fate of the '250 patent along with the other eleven patents asserted against Petitioner. IPR proceedings were intended to streamline resolution of validity issues. In a case as complex as this one with an efficient path to resolution well underway, institution of a parallel IPR proceeding would impose a superfluous tax on the resources of all participants and contribute nothing to "the Board's objectives of providing an effective and efficient alternative to district court litigation." *Nokia*, IPR2022-00755, Paper 9 at 10. Accordingly, this factor weighs strongly in favor of discretionary denial.

D. *Fintiv* Factor 4: The Issues In The Petition And District Court Proceeding Significantly Overlap

Fintiv factor 4, which considers the overlap of the issues between the petition and parallel district court litigation, weighs strongly in favor of discretionary denial.

In a half-hearted attempt to address the redundancy of this proceeding, Petitioner provides only a limited intermediate stipulation, rather than a *Sotera*-style stipulation, stating it will not rely on the *same* prior art in the district court. (Petition 66-67.) The PTAB has previously held that, at most, narrower stipulations weigh only “marginally in favor of not exercising discretion to deny institution.” *Sand Revolution II*, IPR2019-01393, Paper 24 at 9-10.

But here, Petitioner's stipulation will not prevent the invalidity theories in the petition from being litigated in the district court. Patent Owner has asserted the '250 patent against three other defendants in cases that have all now been consolidated into a single case that includes Petitioner. Codefendants Sophos and Trend Micro assert the same primary reference—Kester—and Sophos additionally relies on Kennedy. (EX-2013 12; EX-2014 14, 40.) None of Petitioner's codefendants have provided a stipulation that they will not litigate the same prior art and grounds contained in this petition.

Thus, even with Petitioner's narrow stipulation, two of the three prior art references Petitioner asserts in its petition are identical to prior art being litigated to trial in WDTX. Accordingly, Factor 4 weighs in favor of discretionary denial. *See Fintiv*, IPR2020-00019, Paper 11 at 12; *Google LLC v. EcoFactor, Inc.*, IPR2021-00454, Paper 9 at 12-14 (PTAB July 22, 2021) (denying institution based on *Fintiv*,

even where co-defendants in the parallel litigation provided matching *Sands Revolution* stipulations).

E. *Fintiv* Factor 5: Both Parties Are Party To The Parallel Proceeding

Fintiv factor 5, which considers overlap of the parties between the petition and the parallel litigation, also weighs strongly in favor of discretionary denial. Patent Owner asserts infringement of the '250 patent by Petitioner in the WDTX case, for which a trial will be held around the same time the Board's final written decision is due. Thus, Factor 5 weighs in favor of denial. *E.g., Vizio, Inc. v. Maxell, Ltd.*, IPR2022-01459, Paper 7 at 21-22 (PTAB Apr. 11, 2023) (where district court trial between the parties was projected to take place within a month of the Board's final written decision, factor 5 "weighs in favor of discretionary denial"); *Nokia*, IPR2022-00755, Paper 9 at 13 (factor 5 weighed in favor of discretionary denial where Petitioner was defendant in parallel proceeding). Petitioner relies on a dissenting opinion to suggest that factor 5 does not weigh in favor of denial; however, such a holding is contrary to the Board's recent application of *Fintiv*. *See id.*

F. *Fintiv* Factor 6: Petitioner's Grounds Do Not Rise To The Level Of "Compelling Evidence of Unpatentability"

Factor 6 weighs against institution because the petitioned grounds contain critical deficiencies and rely on the same prior art and arguments presented to the Office during prosecution.

To meet the standard for a compelling unpatentability challenge, Petitioner must present challenges “in which the evidence, if unrebutted in trial, would plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence.” *Commscope Techs. LLC v. Dali Wireless, Inc.*, IPR2022-01242, Paper 23, 3 (PTAB Feb. 27, 2023) (precedential) (citing Discretionary Denial Memo at 4.) “[T]he compelling merits is a higher standard than the standard set for institution by statute.” *Commscope Techs.*, IPR 2022-01242, Paper 23, 3 (citing Discretionary Denial Memo at 4-5). Under the compelling merits standard, “[a] challenge can only ‘plainly lead to a conclusion that one or more claims are unpatentable’ if it is highly likely that the petitioner would prevail with respect to at least one challenged claim.” *Id.* at 3-4 (quoting *OpenSky Indus., LLC v. VLSI Tech. LLC*, IPR2021-01064, Paper 102, 49-50 (PTAB Oct. 4, 2022) (precedential)).

The compelling merits determination does not replace a *Fintiv* analysis; rather, “PTAB panels...only consider compelling merits if they first determine[] that *Fintiv* factors 1-5 favor[] a discretionary denial.” *Commscope Techs.*, IPR 2022-01242, Paper 23, 4. Where the Board finds compelling merits, it “must provide reasoning to explain and support its determination as to compelling merits sufficient to allow the parties to challenge that finding and sufficient to allow for review of

that decision.” *Id.* at 5-6. Here, not only do *Fintiv* factors 1-5 plainly favor discretionary denial, but Petitioner fails to show compelling merits.

As discussed below, Petitioner's prior art grounds rely on a non-analogous primary reference and contain critical deficiencies, failing to demonstrate a reasonable likelihood—let alone a high likelihood—that at least one claim is unpatentable. *See* Section VI, *infra*. Moreover, Petitioner relies on the same disclosures and arguments in the prior art that the Office already considered. *See* Section IV, *infra*. Petitioner presents nothing compelling.

In sum, five factors (1, 3-6) weigh strongly in favor of discretionary denial, whereas one factor (2) is neutral. Accordingly, Patent Owner respectfully requests that the Board exercise its discretion to deny institution.

III. THE '250 PATENT

A. Inadequacy of the Prior Art & The Need for Improved Malware Detection

“Malware” generally refers to an executable computer file or an object that is or contains malicious code, *e.g.*, viruses, trojans, worms, etc. (EX-2001 ¶27.) Much of the prior art anti-malware or anti-virus software focused on scanning and stopping *known* malware. (EX-1001 1:18-2:18.) For example, some prior art anti-virus software analyzed objects for “signatures”—something within the object that was known to be indicative of malware. (EX-1001 1:18-28.) Whenever new malware

was detected by the industry, service providers would craft new signatures and re-release them as updates to their anti-malware programs. (*Id.*) Other prior art systems checked databases of known files to determine whether a file had been known for long enough that it could be deemed safe. (EX-1001 1:43-47.)

These prior art methods for detecting known malware suffered from inevitable extensive delay—either while waiting for malware to be detected and a signature generated or waiting a sufficient amount of time that a program could be deemed safe. (EX-1001 1:30-37, 1:48-54; EX-2001 ¶28.)

Other anti-malware systems sought to protect from previously unknown malware. For example, prior art community-based anti-malware systems—*e.g.*, having a central computer and local computers on a network—relied on analysis at the central computer to determine whether a file was known or unknown. (EX-1001 1:60-2:4.) But when a file was unknown, the system had to provide the entire file to the central computer, where a manual or semi-manual detailed analysis of the file would be performed. (EX-1001 2:4-11.) This analysis “can still take days given the human involvement that is typically required.” (*Id.*) Other prior art systems similarly relied on a human administrator to “make a better informed though still ‘manual’ decision as to whether or not the file is safe to run.” (*E.g.*, EX-1001 2:18-27.) Thus, such

prior art systems still resulted in considerable delay before a new file could be classified as safe or malware. (EX-1001 2:12-13; EX-2001 ¶¶29-31.)

Accordingly, there was a long-felt need for an improved technique to efficiently determine whether files were safe or malware. (EX-2001 ¶32.)

B. Innovations of the '250 Patent

The '250 patent is entitled “Methods and Apparatus for Dealing with Malware” and claims a method and system for classifying a computer object as malware. (E.g., EX-1001 Claims 1, 13, 25.) Specifically, the patented technology introduced a method and system for “a rapid determination of” whether an object (e.g., a file) is safe or malware, without the time-consuming need for preliminary detailed analysis of the object itself. (EX-1001 3:8-18.) The term “object” may include a computer file, partial file, sub-program, web page, piece of code, etc. (*Id.* 7:63-66.)

The '250 patent discloses a method in which “a base computer” receives data about a computer object from each of a plurality of “remote computers,” compares the received data, and classifies the computer object as malware or not malware based on its comparison; where the object is unknown for example, the '250 patent further discloses automatically generating a mask to monitor behavior of the object to determine whether reclassification is needed. (EX-1001 2:65-3:7; EX-2001 ¶¶34-45.) This method can be used in the exemplary system illustrated below:

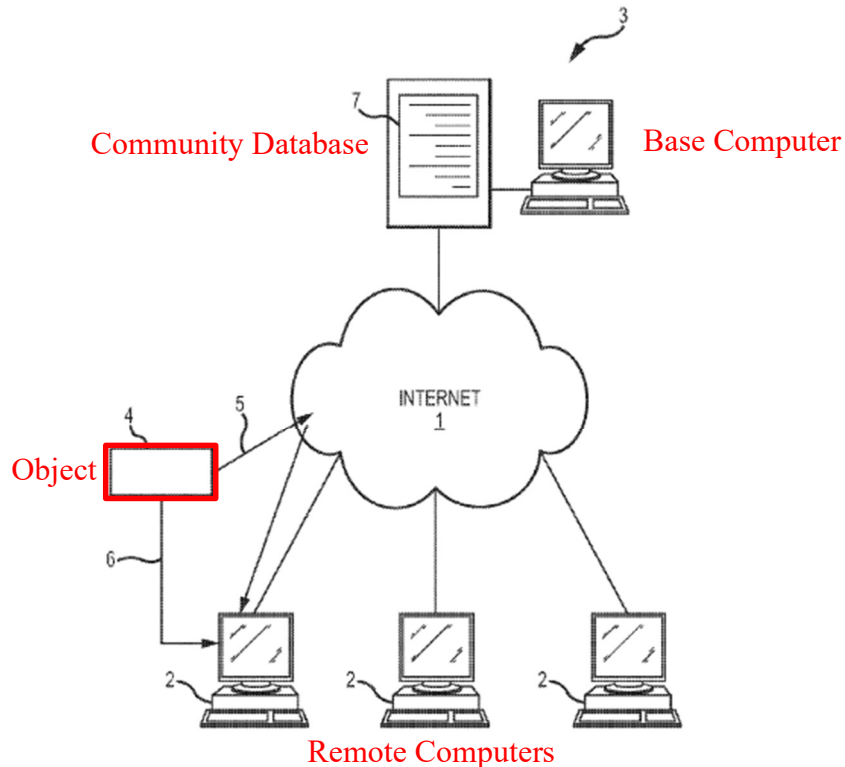


FIG.1

(EX-1001, Fig. 1, 7:54-8:16 (annotated).)

When an unknown object is run at a remote computer, data related to the object is passed to the base computer for storing in the community database and for further analysis. (EX-1001 8:17-18, 8:44-47.) Data is preferably sent in the form of a “key” or “signature” allowing quick comparison of objects, reduced transmission and storage requirements, and rapid analysis at the base computer. (EX-1001 3:51-4:6.) The base computer searches the community database for the object’s signature. (EX-1001 8:47-50, Fig. 2 (step 25).) If the signature is found and indicates the object is safe or unsafe, the signature and/or a message is provided and the object marked

“safe” or “unsafe.” (EX-1001 8:60-9:7, Fig. 2 (steps 26-27).) In this case, the object may not be allowed to run and/or the user may be given an informed choice as to whether to run the object or not. (EX-1001 9:7-10.)

When the base computer finds no signature or the object remains unknown, a signature that is representative of the unknown object is created and initially marked as bad or unsafe. (EX-1001 9:11-17, Fig. 2 (steps 28-29).) This signature is then provided to the remote computer and a message sent that might instruct the remote computer not to run the object or inform the user of the risk and offer the choice of running it. (EX-1001 9:17-25, Fig. 2 (steps 30-31).)

To ensure protection even where an object is allowed to run on a remote computer, the '250 patent claims automatically “generating a mask for said object that defines acceptable behaviour for the object.” (EX-1001 4:21-23, cl. 1.) This “mask is generated in accordance with normal behaviour of the object determined from” the data received about the object. (EX-1001 cl. 1.) The operation of that object may then be monitored within the parameters of this mask. (EX-1001 9:26-39, 14:55-61, Fig. 3 (steps 38-39), 14:61-15:4 (*e.g.*, details of any ports or interfaces that might be required to be opened to allow such communications, any databases that may be interrogated by that object, etc.); EX-2001 ¶¶42-45.)

If the behavior of the object is within the parameters set by the mask, the object is allowed to run. (EX-1001 15:45-47.) However, if the object's behavior exceeds the parameters of the mask, this behavior might be flagged and/or not allowed to run. (EX-1001 15:47-52.) By continuously monitoring a process each time it is run, any behavior that differs from previous behavior can be noted and the mask updated, or the process reclassified as unsafe. (EX-1001 15:64-16:3.)

The '250 patent's "sophisticated pattern analysis" allows for "rapid determination of the nature of the object to be made, without requiring detailed analysis of the object itself." (EX-1001 3:8-18.) Its methods and system decreased reliance on signature verification and negated the need for manual, time-consuming "deep analysis" of an object. (*Id.*; EX-2001 ¶46.)

C. Claim Construction

1. "automatically" (claims 1, 13, 25)

Petitioner asks the Board to apply a construction of "automatically" that is inconsistent with the district court's construction of "automatically" in the parallel litigation. (*Compare* Petition 8-9 with EX-2012 4.) The district court correctly construed "automatically" as having its "[p]lain-and-ordinary meaning," which the court clarified as "includ[ing], *but is not limited to*, 'without human involvement.'" (EX-2012 4.)

This is consistent with the '250 patent's claims and specification, which use the term "automatically" to describe actions that necessarily and inevitably occur as a result of a particular circumstance—though a human may have been involved somewhere along the way. (EX-2001 ¶¶48-51; EX-1001 3:31-35.) For example, the specification explains that by identifying relationships between an object and other objects, this information "can be used immediately and automatically to mark a child object as bad (or good) if the [] parent or other related object is bad (or good)." (EX-1001 3:31-35.)

The petition duplicates the same argument Petitioner presented to the district court—i.e., that "the file history is [allegedly] unequivocal that the term 'automatically' excludes human involvement." (Petition 8.) Because Petitioner's district court arguments were unsupported by the applicant's statements during prosecution (just as Petitioner's arguments are, here), the district court rejected Petitioner's narrowing construction.

During prosecution, the examiner alleged that U.S. Patent Publication No. 2005/0210035 ("Kester"), the same reference cited in the petition, disclosed "automatically generating a mask...wherein the mask is generated in accordance with normal behaviour of the object determined from said received data." (EX-1002 611.) The applicant traversed Kester, explaining that Kester required that a human

reviewer determine the expected network activity and decide what behavior is allowable. (EX-1002 632-33.) Whereas in the '250 patent, the applicant explained, “human decision *is not necessary* to generate the mask or monitor the operation” of the object. (*Id.*) The applicant made similar statements regarding U.S. Patent Publication No. 2003/0177394 to Lambert. (EX-1002 585-586.) But these statements that human decision is not *necessary* to the step of generating a mask and monitoring an object do not rise to a clear and unambiguous *exclusion* of *all* human involvement. EX-2001 ¶¶52-59; *N. Telecom Ltd. v. Samsung Elecs. Co.*, 215 F.3d 1281, 1293–95 (Fed. Cir. 2000); EX-2017 5-6.

The district court agreed with Patent Owner's reading of the claims and prosecution history, rejecting that the plain and ordinary meaning of “automatically” required “without human involvement.” (EX-2012 4.) The Court then construed “automatically” to have its plain and ordinary meaning, which “includes, *but is not limited to*, ‘without human involvement.’” (*Id.*) Patent Owner and its expert apply the plain and ordinary meaning of this term as construed by the district court. (EX-2001 ¶60.)

While Petitioner's proposed construction is incorrect, as discussed above, Patent Owner notes that Petitioner's grounds fail under both Patent Owner's and Petitioner's constructions. (Section VI, *infra.*)

2. Additional Terms At Issue In The District Court

The Petitioner and its co-Defendants raised additional terms for construction in the parallel litigation. On March 16, 2023, the Court determined that no terms of the '250 patent were indefinite and construed all terms to have their plain and ordinary meaning.²¹ (EX-2012 3-5, 8.) Accordingly, Patent Owner and its expert apply the plain and ordinary meaning of all other claim terms. (EX-2001 ¶¶61.)

D. Level of Ordinary Skill in the Art

A POSITA at the time of the invention of the '250 patent (which claims priority to an earlier application (GB 0513375.6) filed in Great Britain on June 30, 2005) would have had a Bachelor's degree in an accredited program of Electrical Engineering, Computer Engineering, or Computer Science or in a similar discipline, and have 2-3 years of practical work or research experience in the general fields of electrical engineering, computer science, networking, communications, and device

²¹ Similar to the Court's construction of "automatically," the Court did provide clarifying remarks on the plain and ordinary meaning of some terms. For brevity, and because these clarifications are not critical to the issues addressed in this preliminary response, Patent Owner does not reproduce all constructions here and instead attaches the Court's claim construction order.

and network security. (EX-2001 ¶¶62-66.) More advanced degrees and/or training in a related discipline can compensate for shorter work experience. (*Id.*)

IV. THE BOARD SHOULD EXERCISE ITS DISCRETION TO DENY INSTITUTION UNDER 35 U.S.C. § 325(d)

The Board has discretion to deny institution of a petition when “the same or substantively the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d). Here, discretionary denial under Section 325(d) is proper because the Office already considered U.S. Patent Application Publication No. 2005/0210035 (“Kester” or EX-1004) during prosecution of the ’250 patent, and all petitioned grounds rely on Kester as a primary reference. After consideration of these same disclosures, the examiner allowed the ’250 patent.

When deciding whether to exercise its Rule 325(d) discretion, the Board considers a two-part framework: “(1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.” *Advanced Bionics LLC v. MED-EL Elektromedizinische Gerate GmbH*, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential).

**A. The Same Or Substantially The Same Prior Art And Arguments
Were Previously Presented To The Office**

In considering the first part of the *Advanced Bionics* framework, the Board may consider the relevant *Becton Dickinson* factors: (a) the similarities of the asserted art and the art previously considered; (b) the cumulative nature of the asserted art and the art previously considered; and (d) the extent of the overlap between the arguments made during examination and the Petitioner's arguments. *Advanced Bionics*, IPR2019-01469, Paper 6 at 9-10 (citing *Becton, Dickinson and Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8, 17–18 (PTAB Dec. 15, 2017) (informative)).

It is undisputed that Kester, the primary reference asserted in all of Petitioner's grounds, is the same prior art reference considered by the examiner during prosecution. (Petition 5; EX-1002 610.) And although Honig was not cited during prosecution, Petitioner's grounds rely on the same arguments previously considered by the Office. (*See* Petition 5-6.)

During prosecution of the '250 application, the applicant made the following amendments to claim 1 (EX-1002, 595):

Claims	Claim Language ²²
[1.1] (See [13.1], [25.2])	<i>“receiving data...<u>the data including information about the behavior of the object running on one or more remote computers</u>”</i>
[1.5] (See [13.4], [25.4])	<i>“<u>automatically</u> generating a mask for the computer object that defines acceptable behaviour for the computer object, <u>wherein the mask is generated in accordance with normal behaviour of the object determined from said received data</u>”</i>

In a final office action, the examiner argued that claims should be rejected as obvious over U.S. Patent Publication No. 2003/0177394 (“Dozortsev”) in view of Kester. (EX-1002 610.) After noting that Dozortsev did not disclose data about an object’s behavior, automatically generating a mask in accordance with normal object behavior, or applying such a mask, the examiner relied on Kester for these limitations. (EX-1002 611-612.)

While Petitioner’s description of the prosecution history focuses only on arguments related to “automatically generating a mask” (Petition 2-4), in traversing Kester, the applicant noted several distinctions between Kester and the ’250 patent,

²² Underlining indicates claim language added in the amendment.

including that: unlike Kester, “human decision is not necessary to generate the mask or monitor the operation” in the ’250 patent; “a skilled person would have no motivation to adapt Kester to...automatically generate a mask”; and “Kester also does not teach or suggest reclassifying an object as malware if its monitored behavior extends beyond that permitted by the mask.” (EX-1002 633.) Petitioner’s grounds do not acknowledge or address the applicant’s prior arguments. (*E.g.*, Petition 28-32, 38-39.)²³

For example, during prosecution, the applicant traversed Kester, arguing that unlike Kester, where human decision was required to determine the expected behavior and decide what behavior is allowable, “human decision is not necessary to generate the mask or monitor the operation” in the ’250 patent. (EX-1002 632-33.) And, applicant argued, no POSITA would have been motivated to automate Kester’s method, “as to do so would mean that the system of Kester would no longer be able to perform its function of allowing a company to implement appropriate policies

²³ While the petition states that Kester in view of Hong alternatively discloses the “reclassifying” limitation, Petitioner relies only on Kester’s disclosure as allegedly “reclassifying...when the actual monitored behaviour extends beyond that permitted by the mask.” (Petition 38-39.)

governing what their employees can do on their computers.” (EX-1002 634.) That is, the applicant demonstrated that Kester failed to disclose “*automatically generating a mask*” and that a POSITA would not have been motivated to automate Kester’s method.

Here, Petitioner argues that a POSITA would have been motivated to automate Kester’s process in view of Honig’s adaptive model generator. (Petition 29-32.) As the applicant previously explained to the examiner and as will be discussed in further detail below, it would not have been obvious to automate the human determination(s) in Kester because “[i]t is [] essential to have the Network Administrator review each program for each user to decide what policy is appropriate for their company.” (EX-1002 633-634.)

Kester is concerned with a system to allow an employee to control what their employees can do on their computers. This is in essence a matter of individual policy for each company and may vary between companies or even between users in a company.

(EX-1002 633.) Petitioner does not address or rebut the applicant’s argument or explain why its obviousness analysis based on Honig does not suffer from the same lack of motivation to modify Kester. (*See* Petition 29-32.) To the contrary, the combination of Kester and Honig *does* suffer from the same lack of motivation to automate Kester’s process. (Section VI(B)(3), *infra.*) But Petitioner asks the Board

to reconsider the same arguments already presented to the Office during prosecution without explaining why it should do so.

As another example, after the examiner opined in an office action that “Dozortsev and Kester are from the same field of endeavor, monitoring for malware,” the applicant corrected the examiner, explaining that Kester was in a different field and concerned with different problems. (EX-1002 633-634; EX-2001 ¶109.) The examiner subsequently allowed the '250 patent to issue. Petitioner argues that Kester is analogous but fails to address the applicant's previous arguments. (Petition 10-11.)

Petitioner relies on *Thorne Research, Inc. v. Trustees of Dartmouth College* to suggest that where only one reference of a combination was before the Office, discretionary denial is categorically inappropriate. (Petition at 6-7 (citing IPR2021-00491, Paper 18 at 6 (PTAB Aug. 12, 2021)).) This is incorrect. The Board in *Thorne Research* noted that Patent Owner had entirely failed to address whether the combination of two references—one of which was previously before the Office—presented the same or substantially the same art as previously presented. *Thorne Research*, IPR2021-00491, Paper 18 at 8-9. But in cases like this, where the new reference does not distinguish the Petitioner's grounds from arguments previously considered by the Office, the Board has declined to institute under Section 325(d).

Advanced Bionics, IPR2019-01469, Paper 6 at 14-17 (despite Petitioner combining a previously examined reference in grounds with three new references—finding the new references duplicative of disclosure and arguments already considered by the Office).

The key limitations discussed above are required of all independent claims. The examiner previously considered whether Kester disclosed these key limitations and allowed the '250 patent to issue, yet Petitioner again relies on the same disclosure and arguments for these limitations.

B. Petitioner Makes No Claim that the Examiner Erred During Prosecution

Becton Dickinson factors (c), (e), and (f) relate to whether the petitioner has demonstrated a material error by the Office. *Advanced Bionics*, IPR2019-01469, Paper 6 at 10; *see Becton*, IPR2017-01586, Paper 8, 17–18 (designated as informative). Here, Petitioner does not assert that the examiner erred in examining the prior art or the arguments made during prosecution. (*See* Petition at 5-7.) As the examiner made no error in issuing the '250 patent over Kester, the *Advanced Bionics* framework supports discretionary denial of institution under Section 325(d). *Advanced Bionics*, IPR2019-01469, Paper 6 at 9 (“If reasonable minds disagree regarding the purported treatment of the art or arguments, it cannot be said that the Office erred in a manner material to patentability.”).

V. OVERVIEW OF THE RELEVANT PRIOR ART

A. Overview of Kester

Kester recognized that the rise in internet connectivity meant an increase in employee communications and with that, an increased risk of employees installing applications or transmitting programs or files their employers may disapprove of. (EX-1004 [0005].) For example, instant messaging, while improving productivity, could pose a risk to sensitive data. (*Id.*) Media streaming, while useful, could drain network bandwidth. (*Id.*) Although traditional filter systems existed to manage how employees access the Internet in the workplace, the growth of these threats meant “employers need[ed] new solutions to manage the broader intersection of employees with their computing environments.” (EX-1004 [0006]-[0007]; EX-2001 ¶¶67-68.)

Thus, Kester sought to provide a means for “controlling application files,” *i.e.*, controlling when a user (or workstation) was permitted to launch an application or access a network through an application. (EX-1004 Abstract, [0003], [0040]-[0042]; EX-2001 ¶68.) Kester discloses a method and system that is capable of controlling a wide variety of application categories and discloses more than forty different exemplary categories, including those related to productivity (*e.g.*, project managers, word processing), communication (*e.g.*, email, instant messaging), audio/video (*e.g.* media players), and entertainment (*e.g.* games). (EX-1004 Fig. 4A, [0082]; EX-

2001 ¶69.) While one of these forty-four categories is “malicious applets and scripts,” Kester contains no discussion of why something should be categorized as malicious and/or what policy should be implemented for this category. Kester’s method was not directed to the *determination* of whether a file was safe or malware, but rather to controlling all types of application files. (EX-2001 ¶¶70-72.)

Because an employer’s policies regarding applications and/or their network access are often user- or workstation-specific, Kester discloses a workstation management module (“WMM”) that can “select a unique access privilege for the workstation 101 and/or user” to control the launch of an application or a network access. (EX-1004 [0042], [0057] [0059]; EX-2001 ¶¶72-73.)

Figure 1 illustrates workstations 1 through N on a local area network 100, each of which includes a WMM:

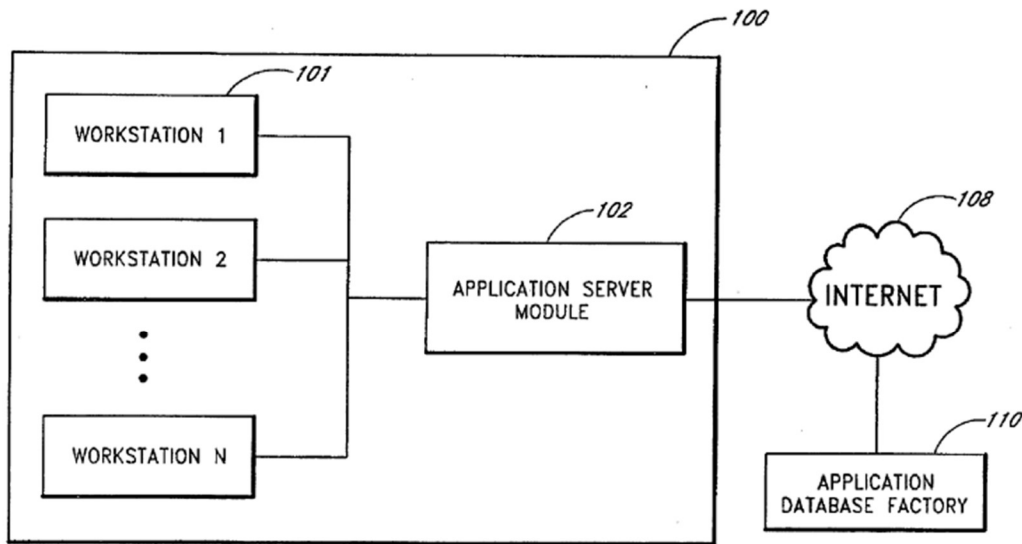


FIG. 1

(EX-1004 Fig. 1.) Each WMM includes a hash/policy table, in which a hash value corresponding to an application (or user) is optionally associated with a category and also associated with a policy specific to that application/user. (EX-1004 [0039], Fig. 2, [0102], [0144]; [0057] [0059]; EX-2001 ¶¶74-75.)

When the WMM detects a request to launch an application or access a network, a “hash” or “application digest” is created from properties unique to the application requesting access, such as the network access data. (EX-1004 [0140]-[0142], Fig. 14 (steps 1402, 1404), [0051].) The WMM then “compares the network access request with the hash/policy table.” (EX-1004 [0053], [0142], Fig. 14 (step 1406).) “If the hash and collection data correspond to a hash stored in the

hash/policy table 204 and the collection data associated with the hash in the hash/policy table 204...the policy associated with the hash is applied in response to the network access request.” (EX-1004 [0143], Fig. 14 (step 1410).)

But for the WMM to be able to consult such a hash/policy table, Kester teaches that a human administrator must review applications and make certain “pre-determined associations”—*i.e.*, determine the expected network activity, applicable category(ies), and policy for each application request and/or workstation. (EX-1004 [0040], [0043], [0072]; EX-2001 ¶77.) Kester teaches that a human reviewer interfaces with an “application analyst’s classification module” to determine these associations. (EX-1004 [0178], Fig. 20.)

Kester first discloses that the human reviewer is provided with a list of applications and determines the appropriate category or categories for each. (*Id.*; EX-2001 ¶78.) A list of applications is extracted from the “uncategorized application database 303 and/or the network access database 304 for classification by the human reviewer.” (EX-1004 [0178].) Kester teaches the human reviewer conducts an in-depth analysis of the application, related information, internet research, and/or related documentation to determine the appropriate categories. (EX-1004 [0134]-[0135], Fig. 13; EX-2001 ¶79-80.) As discussed above, this could include one or more of the forty-four exemplary categories Kester discloses. (EX-1004 Fig. 4A.)

Kester additionally discloses two more categories: “expected or predetermined network access” and “unexpected network access.” (EX-1004 [0178].) Thus, Kester may use the term “expected” or “predetermined” when referring to the general category of expected network access. (EX-2001 ¶80.)

In addition to determining the appropriate categories, Kester teaches that the human reviewer relies on his analysis of the related data and information “to determine an expected or allowed network activity.” (EX-1004 [0179]-[0182], Fig. 20 (steps 2004, 2006); EX-2001 ¶81.) Kester explains that the “[t]he expected network activity...can include one or more network attributes that are associated with the application,” such as a specific protocol, a specific IP address, and a specific access port. (EX-1004 [0184].) For the same application, network attributes may be different for each attempted access. (EX-1004 [0185].) Hash values are generated for each application, including the predetermined network access data, and the WMM “stores the expected network activity in the hash/policy table.” (EX-1004 [0011], [0183].) That is, Kester also uses “expected” or “predetermined” to refer to the expected network activity/attributes that are unique to each entry of the hash/policy table. (EX-2001 ¶81.)

Kester provides an illustrative example to help put these two different uses of “expected” within context:

For example, a first entry in the application inventory database 103 corresponds to the application when the application is operating in a predetermined manner. These expected features relate to normal network activity by the application. A second entry corresponds to the same application hash but different parsed properties or features associated with the application when the application is not operating in a predetermined manner.

(EX-1004 [0070].)

Thus, a POSITA would understand that Kester first uses “expected” or “predetermined” to describe when an application/request to be evaluated matches with the expected network activity (or “expected features”) that are unique to each entry in the hash/policy table. (*See id.* [0070], [0179]-[0184]; EX-2001 ¶84.) But Kester also uses “expected” or “predetermined” to refer to the “expected network access” category—*i.e.*, in the example of paragraph [0070], whether the features for a particular application operation are “operating in a predetermined manner” and “relate to normal network activity by the application.” (*See* EX-1004 [0070], [0178], [0134]-[0135].) Dr. Medvidovic supplies an example which further illustrates the nuanced use of these terms. (EX-2001 ¶85.)

“Each combination of the one or more attributes can be associated with one or more categories.” (EX-1004 [0185]-[0186].) These “categories can be further associated with the policies or rules for the workstation 101 and/or user,” including allow, disallow, or an alternative. (EX-1004 [0186]-[0187], [0055]-[0056].) “[T]he same application may be allowed to run on a workstation but not allowed to run on a different workstation.” (EX-1004 [0116]; EX-2001 ¶82.) “Thus, once [a] requested application is categorized, the application server module 102 can select the policy or rule that is associated with that category.” (EX-1004 [0082].)

Accordingly, Kester enabled a human to control application and network access requests on an individual basis, based on information about the application, the workstation, and/or the user, across all types of applications. (EX-2001 ¶86.)

B. Overview of Honig

Honig discloses “an architecture” to facilitate the automation of data collection, model generation, and data analysis associated with deployment of data mining-based intrusion detection systems (IDSs). (EX-1005 4:53-56; EX-2001 ¶87.) IDSs detect intrusions by collecting an audit stream from a network or system and analyzing it to look for clues of malicious behavior. (EX-1005 1:52-57.) Data-mining IDSs, specifically, collect data from sensors monitoring aspects of a system

and use machine learning algorithms on a large set of “training data” to build detection models. (EX-1005 2:5-16.)

The type of training data needed is dependent on the type of detection model (and, therefore, the type of machine learning algorithm) that will be used to detect intrusions. (EX-2001 ¶88.) Honig discloses at least three general types of model generation algorithms that its architecture may support: (1) “misuse detection,” which models known attack behavior and trains on labeled normal and attack data; (2) “supervised (traditional) anomaly detection,” which detect activity that diverges from a model of normal activity and trains on normal data; and (3) “unsupervised anomaly detection,” which also detects activity that diverges from a model of normal activity but which trains on unlabeled data. (EX-1005 2:29-49, 20:33-38; EX-2001 ¶¶88-89, 95-96.)

Honig teaches that, depending on the specific algorithm supported, its architecture can reduce cost and delay associated with particular steps within a model generation process. (EX-1005 1:44-47, 4:53-56, 3:24-30; EX-2001 ¶¶90-91.) This architecture consists of: sensors and detectors for collecting information from the monitored system; a data warehouse which stores the collected data; model generators which access the data and train data mining-based detection models; model

distributors which transfer the models to detectors; and analysis engines to provide data analysis capabilities. (EX-1005 6:64-7:7.)

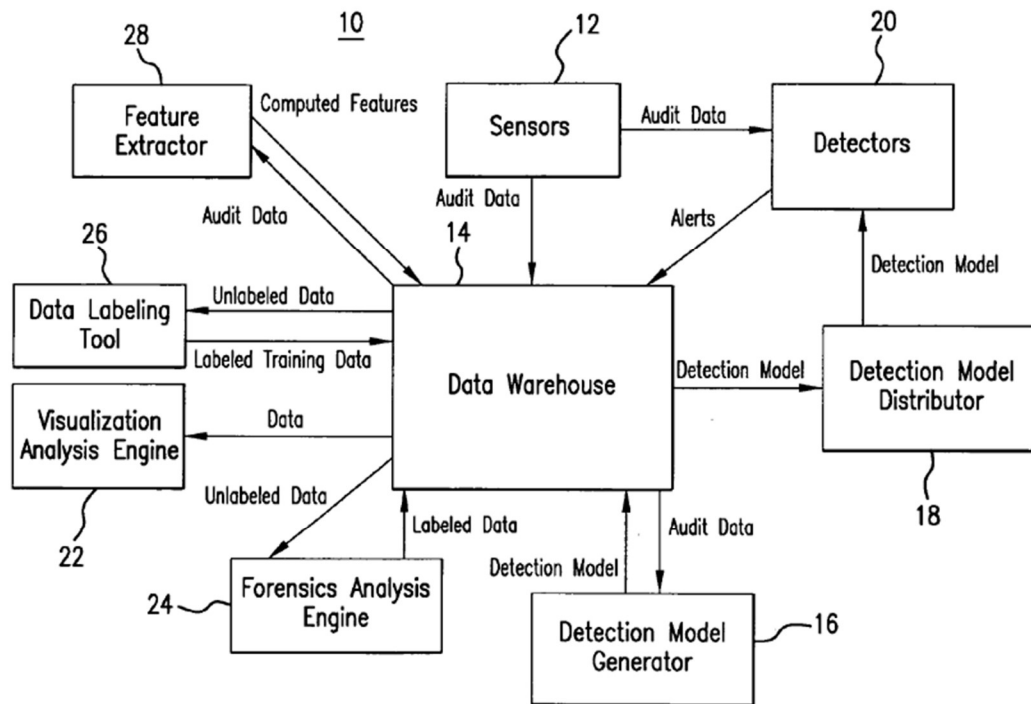


FIG. 1

Based on the specific type of algorithm to be supported, this architecture is capable of facilitating certain steps of the process. (EX-1005 20:39-21:53; EX-2001 ¶¶92-95.)

VI. THE CHALLENGED CLAIMS ARE PATENTABLE

The petition presents two grounds challenging the claims of the '250 patent:

Ground 1	Section 103(a)	Obvious over Kester in view of Honig	Claims 1-2, 7-14, 19-30
Ground 2	Section 103(a)	Obvious over Kester in view of Honig and Kennedy	Claims 3-6, 15-18

“In an *inter partes* review, the burden of persuasion is on the petitioner Failure to prove the matter as required by the applicable standard means that the party with the burden of persuasion loses on that point—thus, if the fact trier of the issue is left uncertain, the party with the burden loses.” *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378-79 (Fed. Cir. 2015); *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (noting petitioners have the “burden from the onset to show with particularity why the patent it challenges is unpatentable”). Petitioner fails to show a reasonable likelihood of success as to any challenged claim because Kester is a non-analogous primary reference, because Kester in view of Honig does not render obvious all limitations of the challenged claims, and because a POSITA would not have been motivated to combine the teachings of Kester and Honig.

A. The Petition Fails To Establish That Kester Is Analogous Art

Kester is non-analogous art to the '250 patent, as it is neither in the same field of endeavor nor reasonably pertinent to the problems considered by the inventors of the '250 patent.

“A reference qualifies as prior art for an obviousness determination under § 103 only when it is analogous to the claimed invention. Two separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved.”

In re Klein, 647 F.3d 1343, 1348 (Fed. Cir. 2011) (internal citations omitted); *Ex Parte Sokoly*, No. 2019-006703, 2020 WL 5587537, *3 (PTAB Sept. 15, 2020) (the fact that the prior art was used to “hang the roof tiles on the roof” did not mean that it was analogous to the claimed “utility hanger”).

The '250 patent was classified as “information security.” (EX-1001 p.1.) And while the patent states that it “relates *generally* to methods and apparatus for dealing with malware,” the '250 patent explains that its particular field of endeavor is the rapid determination of whether an object is safe or malware. (EX-1001 1:4-5, 3:8-18, 4:65-5:2, 8:4-7, 11:42-57, cls. 1, 13, 25; EX-2001 ¶¶103-105.)

The Petitioner misstates the problems the '250 patent sought to solve, merely parroting select limitations of the claims. (Petition 10-11.) But the '250 patent explicitly identifies the prior art problems, explaining that prior art methods for determining whether a file was safe or malware involved “considerable delay” “given the human involvement that is typically required.” (EX-1001 2:4-13.) The '250 patent sought to improve upon these prior art methods that relied on manual or semi-manual detailed analysis of an object and a human administrator to decide whether or not the file is safe or malware. (EX-1001 2:4-27.) The '250 patent thus claims a method and system which “allows a rapid determination of the nature of the object to be made, without requiring detailed analysis of the object itself as such to determine whether it [is] malware.” (EX-1001 3:8-18; EX-2001 ¶¶103-104.)

1. Kester is not in the same field of endeavor.

Kester is not in the same field of endeavor as the '250 patent. Petitioner wrongly asserts that Kester is directed to classifying a computer object as malware. (Petition 10-11.) Kester was classified as “data processing” and explicitly defines its “[f]ield of [i]nvention” as “related to computing devices and, more particularly to monitoring and controlling application files operating thereon.” (EX-1004 [0002]-[0003], Title, cls. 1, 23, 37, 39; EX-2001 ¶106.) Kester explains that while prior art software was available for “preserving employee productivity, conserving

network bandwidth and storage costs, limiting legal liability and improving network security,” Kester sought to provide a “new solution[] to manage the broader intersection of employees with their computing environments” through monitoring and control of application files. (EX-1004 [0006], Title, [0003].) Thus, Kester’s field of endeavor (monitoring and controlling application files) is not the same field of endeavor as the ’250 patent (rapid determination of whether an object is safe or malware). (EX-2001 ¶¶106-109.)

The petition’s assertion that Kester is in the general field of classifying an object as malware is entirely based on a single exemplary category Kester discloses. (Petition 10-11.) As discussed above, Kester discloses forty-four exemplary categories in Figure 4A, one of which is “malicious applets and scripts.” (EX-1004 Fig. 4A, [0082].) But aside from this single reference, Kester contains no disclosure regarding when or why an application should be categorized as “malicious applets or scripts,” no disclosure regarding what might distinguish an application as safe as opposed to a malicious applet, and no disclosure as to what policy should be applied to applications categorized as a malicious applet or script. A mere single reference to “malicious applets and scripts” does not place Kester in the same field of endeavor as the ’250 patent. (EX-2001 ¶¶107-108.)

In *Vizio, Inc. v. Nichia Corp.*, the Board found that prior art reference “Pinnow,” which was cited in an IDS during prosecution of the challenged patent, was non-analogous. IPR2017-00552, Paper 9 at 11, 20-21 (PTAB July 7, 2017). The Board characterized the challenged patent’s field of invention as relating to “a light emitting diode used in LED display, back light source, traffic signal, railway signal, illuminating switch, indicator, etc.” *Id.* at 21. In contrast, the Board defined Pinnow’s field of invention as “concerned with projection display systems and is primarily concerned with those producing black and white images.” *Id.* Thus, despite the fact that both the challenged patent and Pinnow “discuss” converting light from a monochromatic light source, the Board found Pinnow was not in the same field of endeavor. *Id.*

Similarly, in *Ex Parte Brennan*, the Board overturned an examiner’s obviousness rejection because the prior art was non-analogous. EX-2015, Application No. 15/285,875, Appeal No. 2021-003606, Decision on Appeal at 7-8 (PTAB July 26, 2022). While acknowledging that both references shared a common classification and both disclosed two-stage produce washing systems, the Board found that the challenged patent’s field of endeavor was better defined as “the field of washing and sanitizing harvested produce,” whereas the prior art’s field was “more reasonably

stated as the field of preserving produce freshness, especially for use in retail transport, storage and displays.” *Id.* at 6-7.

If one were to accept Petitioner's assertion that this single exemplary category places Kester in the field of malware classification, it would mean that Kester is also in the field of “instant messaging” classification, “media player” classification, “gambling” classification, and more than forty other fields of endeavor despite Kester's lack of disclosure as to when or why each of these categories should be applied. (See EX-1004 Fig. 4A.) A POSITA would not have looked to Kester for a determination of whether an object is safe or malware. (EX-2001 ¶108.)

As Kester is not directed to a determination of whether an object is safe or malware, and certainly not a “rapid determination,” Kester is in a different field of endeavor than that of the '250 patent. *See In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992) (overruling a determination that patent and prior art were analogous finding that one's field of endeavor was *storage* of refined liquid hydrocarbons, while the other's field was *extraction* of crude petroleum).

2. Kester is not reasonably pertinent to the '250 patent

Kester is also not reasonably pertinent to the problem faced by the '250 patent inventors. (EX-2001 ¶110-112.) A reference is reasonably pertinent if “it is one which, because of the matter with which it deals, logically would have commended

itself to an inventor's attention in considering his problem." *In re Klein*, 647 F.3d at 1348 (internal citations omitted). As discussed above, the '250 patent sought to improve upon time-consuming prior art methods for determining whether an object was malware or safe, including those that relied on manual or semi-manual detailed analysis of an object and a human administrator to make the determination. (EX-1001 2:4-27.)

A POSITA would not have looked to Kester in considering these problems because Kester itself embodies the same problems the '250 patent sought to solve. (EX-2001 ¶110.) Kester's ability to control application files requires that a human reviewer conduct a detailed analysis of each application such as Internet research, determine expected network activity, decide how applications should be categorized, and make policy decisions based on the specific user or workstation. (EX-1004 [0089], [0178]-[0179].) And Kester contains no disclosure regarding why an application would be determined to be malicious versus safe. Thus, a POSITA would not have looked to Kester as reasonably pertinent to avoiding detailed analysis and need for human decision. (EX-2001 ¶110.)

Accordingly, Kester is not reasonably pertinent to the particular problem with which the inventor of the '250 patent was involved. *See In re Klein*, 647 F.3d at 1348, 1351-52 (despite both patent and prior art disclosing a partitioned container

intended to facilitate mixing of two separated substances, they were non-analogous because neither prior art reference would fulfill the patent's purpose); *In re Clay*, 966 F.2d at 659; *Smith & Nephew, Inc. v. Hologic, Inc.*, 721 F. App'x 943, 949 (Fed. Cir. 2018) ("Even though both [the patent and the reference] ended up with similar mechanical solutions, it is beyond a stretch to say that [the reference] 'logically would have commended itself to an inventor's attention in considering his problem.'").

During prosecution of the '250 patent, after the examiner opined in an office action that "Dozortsev and Kester are from the same field of endeavor, monitoring for malware," the applicant corrected the examiner, explaining that Kester was in a different field and concerned with different problems. (EX-1002 633-634; EX-2001 ¶111.) The examiner subsequently allowed the '250 patent to issue.

As Kester is neither in the same field of endeavor nor reasonably pertinent to the particular problem with which the inventor of the '250 patent was involved, Kester is non-analogous to the '250 patent and cannot serve as a primary reference for the petition's Section 103(a) grounds. (EX-2001 ¶112.) Accordingly, institution should be denied.

B. The Petition Fails To Establish That The Combination of Kester and Honig Renders Obvious Every Limitation of The Challenged Claims

Independent claim limitations 1.5, 13.4, and 25.4 each require automatically generating a mask that defines acceptable behavior for a computer object and is generated in accordance with normal behavior of the object determined from received data. (EX-1001, cls. 1, 13, 25.) Petitioner's grounds do not disclose or render obvious this limitation.

Claim Limitation	Claim Language
[1.5]	<i>“automatically generating a mask for the computer object that defines acceptable behaviour for the computer object, wherein the mask is generated in accordance with normal behaviour of the object determined from said received data”</i>
[13.4]	<i>“automatically generate a mask for an object that is initially classed not as malware, said mask defining acceptable behaviour for the object built in accordance with normal behaviour of the object determined from said received data...”</i>
[25.4]	<i>“automatically generating a mask for the computer object, the mask defining acceptable behaviour for the object built in</i>

	<i>accordance with normal behaviour of the object determined from said received data”</i>
--	---

As discussed above, Petitioner applies the plain and ordinary meaning of “*automatically*,” as interpreted by the District Court. (See Section III(C)(1), *supra*.) However, the distinctions in the parties’ claim constructions do not alter the analysis in this response.

Petitioner’s obviousness grounds fail for at least the following three reasons:

(1) Kester does not disclose or render obvious “*automatically generating a mask*;”

(2) Kester in view of Honig does not disclose or render obvious “*automatically generating a mask*; and (3) a POSITA would not have been motivated to modify Kester in view of Honig.

1. Kester does not disclose or render obvious “*automatically generating a mask*”

In addressing this limitation, Petitioner correlates “*generating a mask*” to Kester’s disclosure of a human reviewer “determining an application’s ‘expected or allowed network activity,’” including the predetermined network attributes, used for the hash/policy table. (Petition 28-29, 38; EX-1003 73-76.) But whether or not Kester does disclose generating a mask is irrelevant, here, because Kester does not

disclose “*automatically*” performing this step. (EX-1004 [0178]-[0186]; EX-2001 ¶¶114-115, 118-122.)

While Petitioner concedes this fact about Kester (Petition 28), it is important to understand that Kester's human-performed steps do not merely “involve[] human input,” as Petitioner states. (Petition 29.) Rather, human decision is *necessary* to the step of generating the mask. (EX-2001 ¶120.) While Kester discloses several PC-based software tools to “aid” the human's determination, even with these tools, Kester teaches the need for human decision to determine expected network activity, categorize applications, and determine an appropriate policy. (EX-1004 [0090], [0178]-[0179]; EX-2001 ¶¶121-122.) As the applicant explained during prosecution, Kester's method—which is wholly reliant on human decision for the ultimate determination—is distinct from and does not teach the method of the '250 patent, in which “human decision *is not necessary*” to the step of generating the mask. (See EX-1002 632-33; Section III(C)(1), *supra*.)

Furthermore, Kester's teachings, alone, would deter a POSITA from automating Kester for the same reasons the applicant provided during prosecution of the '250 patent. (EX-2001 ¶123.) As discussed above, the applicant explained to the Office that no POSITA would have been motivated to automate Kester's method, “as to do so would mean that the system of Kester would no longer be able to perform

its function of allowing a company to implement appropriate policies governing what their employees can do on their computers.” (EX-1002 634.)

Kester teaches that a human reviewer determines expected network activity and applicable categories within the context of a variety of information, while keeping in mind that the access privilege will be “unique...for the workstation 101 and/or user.” (EX-1004 [0042], [0180]-[0186]; EX-2001 ¶124.) That is, Kester discloses a method in which human decision is necessary to weigh and balance data-based information with user-specific or workstation-specific concerns to determine expected network activity/access—and it would not be clear to a POSITA how such a mental judgment could be meaningfully captured by a binary model or classifier. (EX-2001 ¶¶124-126.) Petitioner does not address the applicant's argument made during prosecution.

Accordingly, Kester alone neither discloses nor renders obvious “*automatically generating a mask*.”

2. Petitioner fails to show that Kester in view of Honig renders obvious “*automatically generating a mask*”

The petition fails to show that Kester in view of Honig renders obvious “*automatically generating a mask*,” because Petitioner makes a critical error regarding Kester's disclosure, because modification of Kester to include an adaptive learning system would still not disclose this limitation, and because Petitioner fails to explain

how one would actually implement Honig's teachings in Kester to practice this limitation.

a) Petitioner misapprehends Kester's disclosure.

Petitioner asserts that a POSITA would have been motivated to automate Kester in view of Honig, but in doing so makes a critical error. (Petition 29-31, 21; EX-2001 ¶¶127-128.) Petitioner argues that a POSITA would have been motivated to automate *a different step* in Kester—the categorization of requests as “expected network access” or “unexpected network access.” (Petition 29-31, 21.)

As discussed above, Kester discloses at least two different “predetermined associations” that the human reviewer must make. (Section V(A), *supra*.) After reviewing the application, related data, research, and or related documentation, the human reviewer determines: (1) the “expected network activity,” including the network attributes, for the hash/policy table; and (2) which categories should be applied to an application/request, such as “expected network access.” (EX-1004 [0178]-[0187]; EX-2001 ¶¶77-85.)

In arguing that Kester discloses “*generating a mask*,” Petitioner relies on the first determination described above—a human reviewer's determination of expected network activity (and attributes) used to define the hash/policy table. (Petition 28-29; *see also id.* 38 (relying on this alleged definition of a mask for limitation 1.10).)

Thus, Petitioner's argument cannot succeed without at least demonstrating why a POSITA would have been motivated to automate this determination. Petitioner fails to do so. (EX-2001 ¶¶128-131.)

In alleging that a POSITA would have been motivated to modify Kester in view of Honig, Petitioner relies on its own misstatement that Kester “contemplate[s]” or suggests the use of an “adaptive learning system” to determine expected network activity. (Petition 29-30.) But Kester merely states that *categorization*—not the human's *determination* of expected network activity/attributes—“can be based upon...adaptive learning systems.” (EX-1004 [0092]; EX-2001 ¶129.)

That is, even if Petitioner were correct that a POSITA would be motivated to implement an adaptive learning system like Honig (which is incorrect, as further discussed below) to aid the human reviewer, the resulting system would still not render obvious automating the step which Petitioner alleges to be “*generating a mask.*” (EX-2001 ¶132; Petition 29-31 (citing EX-1004 [0092])) (“PHOSITA would have found it obvious to look to known adaptive learning systems to perform *Kester's* classification and/or *categorization* processes”), 21 (asserting similarly for Limitation 1.2 that a POSITA would automate “Kester's application *categorization* process”).)

Petitioner fails to provide any explanation of why a POSITA would apply Kester's statement regarding use of adaptive learning systems to aid categorization to *a different step*—i.e., determination of expected network activity. As all challenged claims recite this limitation, the petition should be denied because it cannot establish a reasonable likelihood of success as to a single claim.

b) Modification of Kester to include an adaptive learning system does not render obvious “automatically generating a mask.”

Even if one were to implement an adaptive learning system according to Kester's single statement (which Petitioner does not sufficiently support, as described below), the resulting system would still not disclose “*automatically generating a mask.*” (EX-2001 ¶132.)

Kester merely states that “categorization can be *based upon* word analysis, adaptive learning systems, and image analysis.” (EX-1004 [0092].) That is, Kester does not suggest these tools be used as a replacement for human decision; rather, Kester teaches that “a set of PC-based software tools can *enable the human reviewer* to manipulate, scrutinize, and otherwise manage the applications from the master application database 300.” (EX-1004 [0090].) For example, Kester discloses a graphical user interface (GUI) including “buttons preloaded with *algorithmically derived hints to enhance productivity of the human reviewer.*” (EX-1004 [0090].)

“The application analyst’s classification module 302 displays this information to the human reviewer to aid in categorizing the application.” (EX-1004 [0097].) Thus, a POSITA would understand that even if one were to implement an adaptive learning system according to Kester’s statement, such a system would merely provide hints to aid the human reviewer in categorizing applications/requests and not remove the need for a human’s ultimate decision. (EX-2001 ¶132.)

Accordingly, even if one were to implement an adaptive learning system as Petitioner suggests (whether it be the alleged model generator of Honig or a different system), Kester expressly teaches that such a tool would not “*automatically*” determine expected network activity or categorize applications.

c) Petitioner fails to explain how a POSITA would implement Honig’s teachings in Kester.

Petitioner asserts that Kester’s single reference to an adaptive learning system would have caused a POSITA to look to and implement Honig’s alleged “adaptive learning model.” (Petition 29-30.) But Petitioner provides no analysis of how a POSITA would combine Kester and Honig’s teachings to practice such a limitation. (EX-2001 133.)

Honig discloses “[m]achine learning and data mining algorithms” used on a large set of “training data” to build detection models. (EX-1005 2:14-16.) These models are then used to evaluate new data and determine whether that data is

intrusive or not. (EX-1005 2:17-19.) Honig explains that there are different machine learning algorithms for building different kinds of models, and each algorithm is trained on different kinds of data. (EX-1005 2:29-3:50.) “[A]lgorithms are generally classified as either misuse detection or anomaly detection.” (EX-1005 2:29-30.) “Misuse detection algorithms” model known attack behavior and train on a large set of attack data. (EX-1005 2:29-42; *see generally id.* 20:39-63.) “[S]upervised (traditional) anomaly detection” algorithms “learn a model of normal activity by training on a set of normal data,” and “unsupervised anomaly detection” algorithms train on “unlabeled data.” (EX-1005 2:29-49, 20:33-38; *see generally id.* 20:64-21:38.)

Honig discloses a multi-component “architecture” to facilitate training and deploying models in data-mining intrusion detection systems. (Section V(B), *supra*; EX-2001 ¶¶91-94.) This architecture consists of sensors, detectors, a data warehouse, model generators, model distributors, and analysis engines. (EX-1005 6:64-7:7, Fig. 1.) Ignoring Honig’s disclosed benefits of this overall architecture, Petitioner relies on Honig only for its disclosure of a “model generator,” alleging that a POSITA would have been motivated to automate “Kester’s classification and/or categorization processes” using the adaptive model generator disclosed in Honig. (Petition 30.)

Petitioner states generally that “*Honig* provides a detailed discussion of adaptive learning model generators that were known in the field.” (Petition 31.) Yet Petitioner fails to specify a particular algorithm/model that could be implemented and useful in Kester, making it impossible to evaluate how such a model would be incorporated into Kester or what modifications would have to be made to accommodate such a model. (EX-2001 ¶135.) (Petitioner’s expert makes a single mention of Honig’s “SVM algorithms,” (EX-1003 ¶128), but even then, Honig discloses two different types of SVM algorithms and Dr. Lee does not specify which one. EX-1005 23:33-36; EX-2001 ¶136.)

Petitioner describes Honig’s system as “scalable” with components that can be “plugged” into the system architecture. (Petition 31.) Yet, Petitioner does not identify which component(s) would be necessary to support the model that one would allegedly implement in Kester or how these components would function within Kester. (EX-2001 ¶¶137-139.) And depending on the specific algorithm implemented, “a set of labeled training data” may be needed to train the model. (EX-1005 21:46-50; EX-2001 ¶136.) Petitioner identifies no solution for labeling and supplying this training data. Finally, Petitioner confusingly asserts that a model could be used in Kester to make a malware determination/classification. (Petition 30.) Yet Petitioner does not explain how such a malware

determination/classification would be made when the model has already been tasked with determining whether a request is expected or not. (EX-2001 ¶155.)

Because Petitioner does not explain how a POSITA would implement Honig's teachings in Kester, Petitioner has not shown that such a combination would render obvious "*automatically generating a mask.*"

3. A POSITA would neither look to Honig nor be motivated to modify Kester in view of Honig

In addition to Petitioner's failure to explain how a POSITA would have combined Kester and Honig, a POSITA would not have been motivated to do so for the reasons stated below.

a) Kester and Honig are non-analogous.

Kester and Honig are neither in the same field of endeavor nor pertinent to the same problems, and a POSITA would not have looked to the teachings of one to modify the other. (EX-2001 ¶¶141-143.)

Kester's method relates "to monitoring and controlling application files" on computing devices. (EX-1004 [0002]-[0003]; Sections V(A), VI(A), *supra.*) Honig's invention relates to "detecting anomalies in a computer system, and more particularly to an architecture and data format for using a central data warehouse and heterogeneous data sources." (EX-1005 1:42-47.) Whereas Kester addresses difficulties in controlling employee access to a network across a wide variety of

application categories (EX-1004 [0006]-[0007], [0040]-[0042], Fig. 4A), Honig addresses the cost and inefficiencies associated with model generation. (EX-1005 2:65-3:12, 4:48-57.) Kester and Honig are non-analogous, such that no POSITA would have combined their teachings. *See* Sections V(A)-(B), *supra*.

b) Kester's discussion of an adaptive learning system would not have motivated a POSITA to modify Kester.

Petitioner relies on a single sentence in Kester, which states that “[c]ategorization can be based upon word analysis, adaptive learning systems, and image analysis,” to argue that automation is “expressly contemplated by Kester.” (Petition 29-30.) But Kester merely states that *categorization*—specifically—may be *based on* “word analysis, adaptive learning systems, and image analysis.” (EX-1004 [0092].)

As previously discussed, Kester does not suggest use of these tools at all for the human's determination of expected network activity. (Section VI(B)(2)(a), *supra*.) And as also previously discussed, even for categorization, Kester does not suggest that these tools be used as a replacement for human decision but rather as an aid. (EX-1004 [0090]; Section VI(B)(2)(b), *supra*.) Accordingly, this statement in Kester would not motivate a POSITA to automate either of the human reviewer's determinations. (EX-2001 ¶¶144-146.)

This understanding of Kester is logical because automation of these steps within Kester—as previously explained during prosecution—would remove the control that Kester provides to determine application-specific policies across a wide variety of applications and workstations. (EX-1004 Abstract, [0006]-[0007], Fig. 4A; EX-1002 633-634.) Thus, Kester does not suggest, and a POSITA would not consider, automating the determination of expected network activity or the categorization of applications. (EX-2001 ¶145.)

Petitioner appears to concede this point, alleging—confusingly—that a POSITA would have automated Kester's categorization of expected network access to make Kester's method “more efficient for a human reviewer to use.” (Petition 32.) That is, Petitioner admits that—even if a POSITA were to implement an adaptive learning system to assist or enhance human review, human decision would still be necessary to the determination step. Accordingly, a POSITA would not be motivated, based on Kester's single-sentence reference to an adaptive learning system, to automate Kester's determination of expected network activity or the categorization of applications, nor would doing so render obvious this limitation.

c) A POSITA would not be motivated to implement Honig's binary classifier in Kester.

Petitioner's failure to explain how a POSITA would implement Honig's teachings in Kester is likely due to the fact that Honig's algorithm/model would not

be useful in Kester's method. Kester sought to improve upon "traditional filter systems" by providing a "new solution[] to manage the broader intersection of employees with their computing environments." (EX-1004 [0006]-[0007].) Thus, Kester's method provides the ability to control all potential applications, including those related to productivity, privacy, communication, entertainment, and any of the more than forty categories Kester discloses. (EX-1004 [0081]-[0082], Fig. 4A.) That is, Kester is not limited to a "binary" determination. (EX-2001 ¶¶148-150.)

But the SVM algorithm Honig discloses (which is the only type of algorithm Dr. Lee particularly identifies) "is a binary classifier." (EX-1005 21:46-47.) For example, Honig explains that the SVM algorithm can be used to generate models for both unsupervised anomaly detection and normal anomaly detection. (EX-1005 21:39-42.) (Again, Petitioner does not identify what kind of model a POSITA would supposedly implement in Kester.) As a binary classifier, Honig's SVM algorithm can only classify new observations into one of two classifications. (EX-2001 ¶151.)

If it is Petitioner's position that a POSITA would generate a binary model of "expected network activity" to replace the human's determination of network attributes for the hash/policy table, Petitioner fails to explain how this would function within or in place of Kester's hash/policy table. Petitioner also fails to explain how such a model could be customized for specific workstations and users—one of the

primary goals in Kester's system. (EX-2001 ¶152.) Thus, human decision may still be necessary to determine expected network activity and would at least be necessary to define acceptable behavior when determining the appropriate policy. (*Id.* ¶¶152-153.) Accordingly, Petitioner fails to explain how the combination would render obvious "*automatically generating a mask*," and a POSITA would not have been motivated to combine Kester's and Honig's teachings, due to the incompatibility of Honig's classifier and Kester's hash/policy table.

If it is Petitioner's position that a POSITA would generate a binary model of the "expected network access" category based on Honig's teachings, the binary model would be severely limited to making that single category determination, *i.e.*, yes "expected network access" or no. (EX-2001 ¶154.) The resulting system would be incapable of controlling any of the other categories of applications that Kester discloses and render Kester's stated purpose unattainable. (EX-1004 Fig. 4A, [0006]-[0007].) A POSITA would not be motivated to implement such a model, when that model would severely reduce Kester's capabilities. (EX-2001 ¶154-156.)

Additionally, Petitioner asserts that use of such a model would either facilitate or nullify the need for human review. To the contrary, because Honig's model would have such limited utility, human determinations would still be necessary if a POSITA wished to preserve Kester's abilities to control applications within other

categories. (EX-2001 ¶¶153-156.) That is, even if one presumes that Petitioner sought to implement Honig's SVM algorithm (which Petitioner does not sufficiently support), a POSITA would not have been motivated to do so because it would either drastically reduce Kester's capabilities and render its purpose unattainable, or be superfluous due to the continued need for human decision. (*Id.*)

Petitioner alleges that Honig's "model generation algorithms are 'fully automated.'" (Petition 30.) In fact, Honig only describes "[t]he process for converting the data into the appropriate form for training" as "fully automated." (EX-1005 7:19-20.) Honig explicitly teaches that the degree of possible automation in the overall process is dependent on the specific model generation algorithm being supported, the type of data on which that algorithm is trained, and which components of Honig's architecture have been implemented. (EX-1005 20:33-38; *see also id.* 3:24-30 ("Some of the processes still require some manual intervention...").) But as Petitioner has failed to identify even the type of algorithm that a POSITA would allegedly incorporate into Kester, it is unclear which steps of the process Honig would automate or how these steps (and architectural components) would fit into Kester. (EX-2001 ¶¶134-138.)

For example, as previously discussed, depending on the specific algorithm that is implemented, "a set of labeled training data" may be needed to train the

model. (EX-1005 21:46-50.) Thus, even if a POSITA were to incorporate Honig's teachings, a human reviewer would still be required to determine a set of expected network activity and categorize the expected network access to label the data needed to train Honig's model. (*Id.*) Honig explains that one of the critical inefficiencies (and cost) of adaptive model generation is the labeling of training data as normal, attack, clean, etc., as well as the need to "translate[] [the data] into a form suitable for training." (EX-1005 2:14-16, 2:34-42, 2:67-3:13.) "In the case of anomaly detection, each instance of data must be verified to be normal network activity." (EX-1005 3:9-13.) Accordingly, a POSITA would not be motivated to implement Honig's teachings where the need for human determinations would persist. (EX-2001 ¶157.)

Accordingly, a POSITA would not have been motivated to modify Kester in view of Honig. (EX-2001 ¶158.)

4. Petitioner's Grounds Fail To Render Obvious All Dependent Claims

Because Petitioner has failed to establish that any of its grounds render obvious all limitations of the independent claims, Petitioner cannot show that such grounds render obvious dependent claims 2-12, 14-24, and 26-30.

C. Other Limitations Not Addressed

At this preliminary stage, Patent Owner addresses those deficiencies in the prior art which clearly show a lack of reasonable likelihood of the petition's success. Patent Owner's decision not to address certain limitations at this preliminary stage in no way reflects Patent Owner's agreement with the petition or lack of dispute as to additional limitations.

D. There Are Secondary Objective Indicia Of Nonobviousness

Patent Owner contends that secondary objective indicia of nonobviousness exist and reserves its right to provide evidence on this point, should the Board institute. (EX-2001 ¶162.)

VII. CONCLUSION

For the foregoing reasons, the Board should deny institution.

Date: April 26, 2023

Respectfully submitted,

KING & SPALDING LLP

/Brian Eutermoser/

Brian Eutermoser
Registration No. 64,058

Attorney for Patent Owner
Open Text Inc.

CERTIFICATION OF WORD COUNT

The undersigned hereby certifies that the portions of the above-captioned **PA-
TENT OWNER PRELIMINARY RESPONSE** specified in 37 C.F.R. § 42.24
have 13,856 words, in compliance with the 14,000 word limit set forth in 37 C.F.R.
§ 42.24. This word count was prepared using Microsoft Word version 2202.

Date: April 26, 2023

Respectfully submitted,

KING & SPALDING LLP

/Brian Eutermoser/

Brian Eutermoser
Registration No. 64,058

Attorney for Patent Owner
Open Text Inc.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing **PATENT OWNER'S PRELIMINARY RESPONSE** and all supporting **EXHIBITS 2001-2017** were served by filing the documents through the Patent Trial and Appeal Case Tracking System (P-TACTS), as well as sent via Federal Express on April 26, 2023 and courtesy copies were also served via electronic mail, in their entireties on the following:

Adam P. Seitz (Reg. No. 52,206)
Adam.Seitz@eriseip.com
Hunter A. Horton (*pro hac vice to be submitted*)
Hunter.horton@eriseip.com
ERISE IP, P.A.
7015 College Blvd., Suite 700
Overland Park, Kansas 66211
Telephone: (913) 777-5600
Fax: (913) 777-5601

Counsel for Petitioner
CrowdStrike, Inc.

Date: April 26, 2023

Paul R. Hart, (Reg. No. 59,646)
Paul.Hart@eriseip.com
ERISE IP, P.A.
5299 DTC Blvd., Suite 1340
Greenwood Village, CO 80111
Telephone: (913) 777-5600
Fax: (913) 777-5601

KING & SPALDING LLP

/Brian Eutermower/

Brian Eutermoser
Registration No. 64,058

Attorney for Patent Owner
Open Text Inc.