

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AO Kaspersky Lab,
Petitioner

v.

OPEN TEXT INC.,
Patent Owner

Case No. IPR2023-01160
Patent No. 11,409,869

PATENT OWNER'S PRELIMINARY RESPONSE

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Patent Trial and Appeal Board
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EXHIBIT LIST

Exhibit	Description
2001	Declaration Of Sam Malek, Ph.D.
2002	<i>Curriculum Vitae</i> of Sam Malek, Ph.D.
2003	<i>Webroot, Inc., Open Text Inc., v. AO Kaspersky Lab et al.</i> , Case No. 6:22-cv-00243-ADA-DTG, Claim Construction Order, Dkt. 391 (W.D. Tex July 25, 2023)
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	Email dated 11/8/2023 from David Holt to Trials@USPTO.gov re CrowdStrike v Open Text / Webroot IPRs: Request to File Motions to Terminate
2008	Email dated 11/13/2023 from Trials@USPTO.gov to David Holt RE: CrowdStrike v Open Text / Webroot IPRs: Request to File Motions to Terminate
2009	<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)
2010	Dani Kass, "Catching Up On Patent Litigation With Judge Albright" (Law360 Mar. 14, 2023);

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Exhibit	Description
	https://www.law360.com/pulse/articles/1582438/print?section=pulse/courts
2011	<i>Webroot, Inc. and Open Text Inc., v. AO Kaspersky Lab. et al.</i> , Case No. 6:22-cv-243-ADA-DTG, Unopposed Motion to Modify the Scheduling Order, Dkt. 468 (W.D. Tex. Oct. 23, 2023)
2012	<i>Webroot, Inc., Open Text Inc., v. AO Kaspersky Lab et al.</i> , Case No. 6:22-cv-00243-ADA-DTG, Order Granting Fifth Amended Scheduling Order, Dkt. 252 (W.D. Tex., Mar. 29, 2023)
2013	<i>Webroot, Inc. and Open Text Inc., v. AO Kaspersky Lab</i> , Case No. 6:22-cv-00243-ADA-DTG, Defendant's AO Kaspersky Lab's Preliminary Invalidity Contentions, Appendix C (W.D. Tex., Feb. 21, 2023) (excerpted)
2014	<i>Webroot, Inc. and Open Text Inc., v. Sophos Ltd.</i> , Case No. 6:22-cv-00240-ADA-DTG, Defendant Sophos Ltd.'s Final Invalidity Contentions (W.D. Tex., Nov. 1, 2023) (excerpted)
2015	<i>Webroot, Inc. and Open Text Inc., v. AO Kaspersky Lab</i> , Case No. 6:22-cv-00243-ADA, Second Amended Complaint for Patent Infringement, Dkt. 122 (W.D. Tex., Dec. 9, 2022)
2016	<i>Webroot, Inc. and Open Text Inc., v. Forcepoint LLC</i> , Case No. 6:22-cv-00342-ADA, Defendant Forcepoint LLC's Final Invalidity, (W.D. Tex., Nov. 1, 2023) (excerpted)
2017	<i>Webroot, Inc. and Open Text Inc., v. Trend Micro Inc.</i> , Case No. 6:22-cv-00243-ADA, Defendant's Final Invalidity Contentions (W.D. Tex., Nov. 1, 2023) (excerpted)

Open Text Inc. ("Patent Owner" or "Open Text") submits this Preliminary Response to the Petition of AO Kaspersky Lab ("Petitioner" or "Kaspersky") seeking *inter partes* review ("IPR") of U.S. Patent No. 11,409,869 (the "'869 patent").

I. INTRODUCTION

The Board should deny institution for two reasons: (1) discretionary denial under *Fintiv* is appropriate because the validity of the '869 patent is being challenged in a parallel litigation that is scheduled for trial months before a final written decision on this petition would be due, and (2) the petition is not reasonably likely to succeed because it relies on substantially the same art and arguments the Board already rejected when it denied an earlier petition for IPR of the '869 patent's *parent* (U.S. Patent No. 10,599,844; the "'844 patent"). See *Sophos Ltd.*, IPR2023-00528, Paper 14, 18 (PTAB Aug. 14, 2023) ("'*844 Denial*").

First, the Board should deny institution under *Fintiv* because instituting this IPR would undermine Congress's stated goals in creating IPR proceedings: to provide "quick and cost effective alternatives to litigations" and "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. An IPR here would be neither quicker than, nor an alternative to, ongoing district court litigation. The Western District of Texas ("WDTX") is scheduled to proceed to trial on the validity of the '869 patent almost

four months *before* a final written decision on the petition would be due—so an IPR is not quicker. Moreover, the district court has indicated it will not issue a stay when, as here, it can resolve the same issues prior to the Board—so an IPR is not an alternative to litigation. Finally, other defendants have asserted the same primary reference raised in the petition, which the district court must address regardless of whether the Board institutes an IPR. Therefore, instituting an IPR would generate the unnecessary and counterproductive litigation costs that Congress sought to avoid.

Second, the Board should deny institution under 35 U.S.C. §§ 314(a) and 325(d) because the Board already rejected substantially the same arguments presented in this petition when it rejected an earlier IPR petition pressing the same primary reference (Ideses) and substantially the same arguments against the '869 patent's parent (the '844 patent). *See '844 Denial* at 17-22. That earlier petition was filed by Sophos, which is one of Petitioner's co-defendants in the pending district court litigation. There the Board refused to institute IPR because it found that Ideses does not teach or suggest turning features on or off *at the classification stage*, as required by the parent '844 patent's claims. (*'844 Denial* at 18.) As shown below, the claims of the child '869 patent require that same feature. Consequently, Ideses cannot render the claims of the '869 patent obvious either.

The secondary reference introduced in Ground 2 (Sharma) does not fix that shortcoming because Petitioner does not argue that Sharma teaches the missing limitation. (Petition 57-59.) Therefore, Petitioner is not reasonably likely to prevail on any challenged claim, and the Board should deny institution.

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

The '869 patent is one of dozens of patents asserted in claims and counterclaims among five different parties in a series of cases pending in the Western District of Texas. The district court has already issued its claim constructions and is on track to adjudicate the same prior art and invalidity grounds raised in the petition months before the Board would issue a final written decision. Instituting a parallel IPR proceeding that lags far behind the district court would needlessly increase the cost of resolving the underlying dispute. The Board should therefore exercise its discretionary authority to deny institution under 35 U.S.C. § 314(a).

Because Congress's goal in enacting post-grant proceedings, like IPR, was "to ... limit unnecessary and counterproductive litigation costs," Director Vidal has instructed the Board not to institute IPRs that would "increase, rather than limit, litigation costs." Director's Memo, Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation ("Guidance") at 1 (June 21, 2022).

Instituting this IPR would cause just such an increase. The reasons are easy to see: a district court stay is out of the question, and the district court will consider the very same arguments presented in the petition. Accordingly, the Board and the district court will labor to decide the very same issues with the district court well ahead of—and scheduled to reach a final decision months before—the Board. The year-long parallel tracks of two adjudicatory bodies will “increase, rather than limit, litigation costs,” create “potential conflict between the ... (PTAB) and district court proceedings,” and generally increase “the potential for inefficiency and gamesmanship.” Guidance at 1. This is precisely the situation that Director Vidal sought to avoid when she instructed the Board to take “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” See *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 6 (PTAB Mar. 20, 2020).

Confirming this conclusion, every one of the *Fintiv* factors weighs for discretionary denial:

(1) A stay of the co-pending district court litigation—involving 37 patents and four defendants—is highly unlikely. Petitioner cannot avoid a district court trial based on an institution of this Petition, and trial on the Petition will not narrow the issues on which discovery and trial must proceed. Indeed, the '869 patent is currently

asserted against three other defendants, one of which has not petitioned for IPR of the '869 patent. Moreover, none of Petitioner's codefendants have agreed not to litigate the validity of the '869 patent in the district court if the Board institutes this IPR.

(2) Trial in the district court is scheduled to occur nearly four months before a final written decision, and the district court case is on track for that trial date. The co-defendants are scheduled for trial on the validity of the '869 patent even earlier.

(3) The parties and district court have already invested heavily in carrying the parallel litigation past claim construction and well into discovery.

(4) The issues raised in the petition are the same as those the district court has before it—*i.e.*, obviousness in light of Ideses and Sharma—and Petitioner's codefendants have all raised the same primary prior art reference (Ideses) before the district court.

(5) Petitioner will get its chance to make the same arguments before the district court because Petitioner is a defendant in the parallel litigation.

(6) As shown below, the petition's grounds of unpatentability are weak. Thus, every *Fintiv* factor here weighs for discretionary denial. The district court is well on its way to an efficient resolution of the disputes between Patent Owner,

Petitioner, and Petitioner's codefendants. Both the goals of the AIA and the general welfare of the patent system would be best served by denying institution.

A. *Fintiv* Factor 1: The District Court has not Granted and Will not Grant a Stay

The first *Fintiv* factor asks “whether [1] the court granted a stay or [2] evidence exists that one may be granted if a proceeding is instituted.” *Fintiv*, IPR2020-00019, Paper 11 at 6.¹ Here, the undisputed answer to both questions is **no**: no stay has been requested or ordered, and Petitioner has identified no evidence that one will (or even might) be granted if a proceeding is instituted. To the contrary, all evidence indicates that a stay is out of the question.

¹ The decision in *Fintiv* addresses various scenarios that may indicate whether a stay may be granted. *Fintiv*, IPR2020-00019, Paper 11 at 6-9. However, nothing in *Fintiv* suggests that these are the only scenarios that a panel may consider. In particular, *Fintiv* does not hold that an actual denial of a stay is the only consideration relevant to this factor. Rather, *Fintiv* contemplates that any type evidence may be relevant. For example, *Fintiv* holds that one way to “support the arguments that ... a stay may be less likely, and instituting would lead to duplicative costs” is to show the “work completed by the parties and court in the parallel proceeding.” *Fintiv* IPR2020-00019, Paper 11 at 10.

The district court has stated expressly that it considers issue simplification “the most important factor” in deciding whether to stay patent litigation²—and here, a stay would not simplify anything. The validity of the '869 patent will be litigated in the district court, whether this petition is instituted or not, because the patent is asserted against three other defendants, none of whom have promised to forego their validity challenges in the district court based on this institution decision.

² 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 a stay following IPR 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 of the claims asserted in the district court, since the other claims would still require a trial); EX-2006, *Intellectual Ventures I LLC v. Hewlett Packard Enterprise Co.*, No. 6:21-cv-00596-ADA, slip op. at *7 (W.D. Tex. Dec. 22, 2022)(denying a stay following IPR institution , as even IPR estoppel would not simplify the invalidity case, given the defendants’ reliance on prior art systems).

Moreover, the validity of the '869 patent will be litigated in the district court alongside issues regarding *36 other* patents asserted by and against Petitioner and *three other* defendants—issues that the district court is highly unlikely to delay deciding in favor of letting the Board proceed with *this* IPR. The case against Petitioner alone involves fourteen patents—ten asserted by Patent Owner and four asserted in counterclaims by Petitioner.

The table below lists the patents, parties, and IPR petitions involved in this highly complex litigation:³

**Table 1. Patent Owner's Asserted Patents
Against Each WDTX Defendant and Resulting Review Petitions**

Patent	Kaspersky	Forcepoint	Sophos	Trend Micro
11,409,869	IPR2023-01160	Asserted; no IPR	PGR2023-00031	IPR2023-01380
8,201,243	Asserted; no IPR	Asserted; no IPR	IPR2023-00731 (Denied)	IPR2023-01390
8,719,932	Asserted; no IPR	Asserted; no IPR	IPR2023-00732 (Denied)	IPR2023-01391
8,418,250	IPR2023-01334	N/A	IPR2023-0699	IPR2023-00655 (Denied)

³ Patent Owner and CrowdStrike have reached a resolution of the disputes in proceedings initiated by a CrowdStrike petition. The parties to those proceedings have filed a Joint Motion to Terminate in each proceeding.

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Patent	Kaspersky	Forcepoint	Sophos	Trend Micro
				IPR2024-0106
8,726,389	IPR2024-0035	Asserted; no IPR	IPR2023-00633	IPR2023-01459
10,599,844	Asserted; no IPR	Asserted; no IPR	IPR2023-00528 (Denied)	IPR2023-00662 (Denied)
9,413,721	N/A	Asserted; no IPR	IPR2023-00491 (Denied)	N/A
9,578,045	IPR2023-01199	N/A	Asserted; no IPR	IPR2023-00677
10,257,224	IPR2023-01011	N/A	Asserted; no IPR	IPR2023-00657 (Denied)
10,284,591	IPR2023-00895	N/A	Asserted; no IPR	IPR2023-00692 (Denied)
8,856,505	Asserted; no IPR	N/A	Asserted; no IPR	Asserted; no IPR
8,181,244	N/A	N/A	Asserted; no IPR	IPR2023-01392
8,763,123	N/A	N/A	Asserted; no IPR	N/A
8,438,386	N/A	IPR2023-00784 (Denied)	N/A	N/A
10,025,928	N/A	IPR2023-00786 (Denied)	N/A	N/A

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-2009 52.) Consequently, should the Board institute trial on this Petition, the institution will not cause the district court to stay this complex litigation.

Second, the district court has been clear in public comments that it will not stay cases where, as here, the court can resolve the case as quickly as the Board can:

[T]here'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-2010 3.) Indeed, as commentators have observed, "Judge Albright almost never stays proceedings to let the PTAB make its decision first." (*Id.* 2.)

Judge Albright's public comments apply squarely to the situation here. Trial in the district court case against Petitioner is currently scheduled for November 2024. (EX-2011 6.) The remaining defendants are scheduled to go to trial even sooner, in August 2024. The Board's final written decision if IPR is instituted would not be expected until late February 2025. That Judge Albright has made public comments indicating that his practice is to deny a stay in precisely the circumstances presented here is further evidence that he would not stay the WDTX case in response to institution of an IPR here.

Even where no stay has been requested, the Board has found Factor 1 to favor discretionary denial where (as here) "Petitioner present[ed] no evidence that it has

requested a stay [] or that a stay is likely.” *Luxshare Precision Industry v. Amphenol Corp.*, IPR2022-00132, Paper 10, at 9 (PTAB May 3, 2022). And such a decision is particularly appropriate where the circumstances show that “a stay ... is unlikely.” *Nintendo Co. v. Gamevice, Inc.*, IPR2020-01197, Paper 13, at 11-12 (PTAB Jan. 12, 2021); *Samsung Elecs. Co. v. Clear Imaging Research LLC*, IPR2020-01399, Paper 13 at 11-12 (PTAB Feb. 3, 2021) (holding Factor 1 may weigh for denial where there is evidence that the district court is unwilling “to avoid duplicative efforts and await the PTAB’s final resolution”); *Motorola Mobility LLC v. Ironworks Patents, LLC*, IPR2021-00421, Paper 11 at 7-8 (PTAB July 22, 2021).

In sum, the district court has not granted a stay and all indications are that the district court would not grant a stay so that the Board can reach a decision months *after* the current trial date, on *just one* patent of a multi-patent, multi-defendant case. Factor 1 thus weighs in favor of discretionary denial. *Samsung*, IPR2020-01399, Paper 13 at 11-12; *Motorola*, IPR 2021-00421, Paper 11 at 7-8.

B. *Fintiv* Factor 2: The District Court Trial Is Expected Before The Projected Statutory Deadline

Factor 2—the implications of the district court and IPR schedules—also weighs for denial. “[A] parallel proceeding in an advanced state implicates considerations of efficiency and fairness, which can serve as an independent reason

to apply discretion to deny institution.” *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 11-12, 17 (PTAB May 13, 2020) (informative); Guidance at 1.

Here, an IPR would extend months past the parallel district court litigation. Trial is currently scheduled for early November 2024. (EX-2011 6.) Should the Board institute, its final written decision deadline would be in late February 2025, nearly four months after the currently scheduled trial against Petitioner and six months after the other scheduled trials on the same patent.

Thus, if the Board institutes IPR here, the IPR proceedings would not produce a result before the trial. Instead, the parties would waste a year expending precisely the “duplicative,” “unnecessary[,] and counterproductive litigation costs” that the AIA was designed to avoid. *Fintiv*, IPR2020-00019, Paper 11 at 5 (citing *Magellan Midstream Partners L.P v. Sunoco Partners Mktg. & Terms. L.P.*, IPR2019-01445, Paper 12 at 10 (Jan. 22, 2020)); *see id.*, Paper 15 at 17 (discretionarily denying institution where district court trial was scheduled two months before the final decision deadline); *NHK Spring Co., Ltd. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 20 (PTAB Sept. 12, 2018) (*precedential*) (finding that institution of IPR when the district court trial would resolve validity before the PTAB “would not be consistent with an objective of the AIA...to provide an effective and efficient alternative to district court litigation”); *Samsung Elecs. Co. v. California Institute of*

Tech., IPR2023-00131, Paper 10 at 15, 24 (PTAB May 4, 2023) (discretionarily denying institution where “[r]egardless of whether we consider the scheduled trial date or the trial date expected based on time-to-trial statistics, the trial in the underlying litigation would commence several months before the expected date of our final written decision”); *Eclinical Works, LLC v. Decapolis LLC*, IPR2022-00229, Paper 10 at 9 (PTAB Apr. 13, 2022) (discretionarily denying institution where WDTX trial was scheduled “roughly one to two months before any final decision would have been due”).

Because the district court will resolve validity before the Board reaches its final written decision, the second *Fintiv* factor also favors discretionary denial.

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

Factor 3—the resources invested in the parallel district court proceeding—favors denial “if, at the time of the institution decision, the district court has issued substantive orders related to the patent.” *Fintiv*, IPR2020-00019, Paper 11 at 9-10; *see also id.* at n.16 (collecting cases). *Fintiv* holds specifically that “claim construction orders may indicate that the court and parties have invested sufficient time in the parallel proceeding to favor denial.” *Id.* at 10.

The parties have invested significant resources in the parallel litigation over the last twenty months. For example, the parties exchanged infringement and

invalidity contentions long ago (in October 2022 and February 2023 respectively), the district court has held multiple *Markman* hearings, and it issued its claim construction order for the '869 Patent on July 25, 2023. (EX-2003.)

Fact discovery is not only substantially underway, but it is scheduled to *complete* before the Board even makes its institution decision (EX-2012 6.) During this discovery, Petitioner has produced over 3.5 million pages of documents and Patent Owner has made approximately 122GB of source code available. The Court has also held multiple discovery hearings, and Patent Owner has noticed over 35 depositions across the litigations.

Furthermore, Petitioner's and Patent Owner's experts have already invested many hours preparing for their reports by reviewing the patent, prior art, and the defendants' invalidity contentions, as well as traveling to review source code. *See Regeneron Pharms. Inc. v. Novartis Pharma AG*, IPR2020-01317, Paper 15 at 17 (PTAB Jan. 15, 2021) (denying institution where the parties had expended considerable resources in claim construction, substantial fact discovery, and preparation for expert reports). Institution will not reduce the substantial expenses in the related litigation, as the district court trial will be held months before the Board reaches its final written decision.

Furthermore, Petitioner's delay in filing this petition further weighs for denial. Petitioner waited more than eight months after receiving Patent Owner's infringement contentions before filing its petition. During this time, Petitioner knew that the parties were investing in a rapidly proceeding litigation. Petitioner offers no explanation for its delay, which weighs for denial. *Fintiv*, IPR2020-00019, Paper 11 at 11-12; *Regeneron*, IPR2020-01317, Paper 15 at 17 (finding that even where the petition was filed "less than a month after learning of the complaints," the investment by the parties in the parallel proceeding "outweighs the effort expended so far in this proceeding").

D. *Fintiv* Factor 4: The Issues and Parties Overlap Significantly

Factor 4—the degree of overlap between the issues in the petition and those before the district court—also supports denial.

Regarding this fourth factor, *Fintiv* explains that "concerns of inefficiency and the possibility of conflicting decisions [are] particularly strong" where "the Board [is] presented with substantially identical prior art arguments ... at issue in district court." *Fintiv*, IPR2020-00019, Paper 11 at 12. "Accordingly, if the petition includes the same or substantially the same claims, grounds, arguments, and evidence as presented in the parallel proceeding, this fact has favored denial." *Id.*

Here, Petitioner has not offered *any* stipulation that it will not simultaneously pursue in the district court *precisely the same arguments* based on *precisely the same grounds* asserted in its petition during the pendency of any IPR. Indeed, Petitioner raises the same prior art in its district court invalidity contentions.⁴ Even if Petitioner had offered a stipulation, such a stipulation would carry no weight because it does not bar the other defendants in the parallel litigation from litigating substantially the same invalidity challenges before the district court. Petitioner's co-defendants all assert the same primary prior art reference (Ideses) in the litigation that Petitioner asserts here in the petition.⁵ Instituting an IPR would both multiply the burden on Patent Owner and create the possibility of inconsistent decisions between the district court and the Board.

Because Petitioner makes no effort to “mitigate[] any concerns of duplicative efforts between the district court and the Board,” or “of potentially conflicting decisions,” Factor 4 weighs heavily in favor of discretionary denial. *Sotera*,

⁴ Petitioner asserts Ideses and Sharma in its invalidity contentions. (EX-2013 1.)

⁵ Codefendants Sophos, Trend Micro, and Forcepoint cite the same primary reference (Ideses). (EX-2014 24, 95, 199; EX-2016 309; EX-2017 62.)

IPR2020-01019, Paper 12 at 19; *Google LLC v. EcoFactor, Inc.*, IPR2021-00454, Paper 9 at 12-14 (PTAB July 22, 2021).

E. *Fintiv* Factor 5: Both Parties Are Parties in The Parallel Litigation

Factor 5—the overlap of the parties between the petition and the parallel litigation—suggests denial because Petitioner is a defendant in the parallel litigation and, as such, will have a full, fair opportunity to litigate its invalidity contentions. Under *Fintiv*, “[i]f a petitioner is unrelated to a defendant in an earlier court proceeding, the Board has weighed this fact against exercising discretion to deny institution.” *Fintiv*, IPR2020-00019, Paper 11 at 13-14. That is not the case here because Petitioner is a defendant in the litigation. Accordingly, the circumstances raise no fairness concerns that denial would deprive Petitioner of its “day in court.” *See Vizio, Inc. v. Maxell, Ltd.*, IPR2022-01459, Paper 7 at 21-22 (PTAB Apr. 11, 2023) (“Because Petitioner is the litigation defendant, factor 5 weighs in favor of discretionary denial”); *Nokia of Am. Corp. v. Godo Kaisha IP Bridge*, IPR2022-00755, Paper 9 at 13 (PTAB Nov. 2, 2022) (holding that Factor 5 weighed for discretionary denial where Petitioner was defendant in parallel proceeding).

That other defendants are litigating substantially the same petitioned issues in the district court—specifically, obviousness based primarily on Ideses—further supports denial. *Fintiv* holds that, “[e]ven when a petitioner is unrelated to a

defendant, however, if the issues are the same as, or substantially similar to, those ... about to be litigated, or other circumstances weigh against redoing the work of another tribunal, the Board may, nonetheless, exercise the authority to deny institution.” *Fintiv*, IPR2020-00019, Paper 11 at 14. Because of this consideration, *Fintiv* goes on to require that “[a]n unrelated petitioner ... discuss why addressing the same or substantially the same issues would not be duplicative of the [other] case even if the petition is brought by a different party.” *Id.*

Petitioner offers no such explanation here. That other defendants are currently litigating the same obviousness issue based on the same primary reference raises serious concerns of duplicative work by adjudicators. Any public-policy concerns regarding patent validity will be thoroughly addressed by the parallel litigation. Consequently, this factor too weighs for discretionary denial.

F. *Fintiv* Factor 6: The Petition Does Not Present “Compelling Evidence of Unpatentability”

Factor 6—the merits of the Petition—also counsels for denial because, as detailed below, the petition fails to show a “reasonable likelihood” that Petitioner would prevail on any challenged claim. *See* 35 U.S.C. § 314(a). In fact, the Board has already rejected the arguments presented in this petition when it rejected an earlier IPR petition pressing the same primary reference (Ideses) and arguments against the ’869 patent’s parent (the ’844 patent). *See* ’844 Denial at 17-22. There

the Board refused to institute IPR because it found that Ideses does not teach or suggest turning features on or off *at the classification stage*, as required by the parent '844 patent's claims. '844 *Denial* at 18. As shown below, the claims of the child '869 patent require that same feature, so Ideses cannot render the claims of the '869 patent obvious either. Sharma does not fix that shortcoming, and indeed, Petitioner does not even argue that Sharma teaches that missing limitation. Because the petition fails to show a reasonable likelihood of success on the merits, the Petition may not be instituted.

Even if the Petition did have a “reasonable likelihood” of succeeding (it does not), it certainly would not pass the higher threshold of a “compelling” unpatentability challenge that could preclude discretionary denial. Guidance at 4. “[T]he compelling merits standard is a higher standard than the standard for institution set by statute.” *Commscope Techs. v. Dali Wireless, Inc.*, IPR 2022-01242, Paper 23, at 3 (PTAB Feb. 27, 2023). That higher standard requires that the Petition is “highly likely” to succeed on the merits. *Id.* at 4. The opposite is true here.

* * *

In sum, all six factors weigh for discretionary denial. Accordingly, Patent Owner respectfully requests that the Board exercise its discretion to deny institution.

III. THE BOARD SHOULD DENY INSTITUTION BECAUSE PETITIONER IS NOT REASONABLY LIKELY TO SUCCEED.

The Board should also deny institution because Petitioner fails to show it is reasonably likely to prevail on any claim. The petition presents two grounds:

Ground	Claims	Argument
1	18, 20, 22, 24-32, 34, 36, 38-46, 48, 50, 52-59	§ 103(a): Ideses made the claims obvious.
2	18-20, 22, 24-34, 36, 38-48, 50, 52-59	§ 103(a): Ideses in view of Sharma made the claims obvious

Ground 1 is unlikely to succeed because—as *the Board has already decided*—Ideses does not disclose or suggest a classifier that selectively turns features on or off *at the classification stage*, as claimed. And Ground 2 is no more likely to succeed because it contains no argument that the secondary reference introduced therein (Sharma) teaches that missing limitation.⁶

⁶ Because this is a preliminary response, Open Text does not address every limitation of every claim. But this does not constitute an admission that those limitations not discussed are disclosed or rendered obvious by the cited references, and Open Text reserves the right to argue that they are not should the Board institute trial.

A. Background

1. The State of the Art

Every day, thousands of new executable files (“executables”) are created and distributed across computer networks. (EX-1001 1:18-19.) It is the job of computer security software to quickly recognize which of those executables is malicious or otherwise unwanted, and to prevent execution of them. (*Id.* 1:18-24.)

One conventional approach was to perform “static analysis,” whereby the security software analyzes the executable’s code to identify known malicious code blocks within the executable. (*Id.* 2:23-24.) That conventional approach had two drawbacks: (1) it could not identify malicious files that it had not seen before, and (2) it was slow at evaluating encrypted files because it required the security software to first decrypt and disassemble the code.

One solution to the first problem, *i.e.*, identifying malicious code that has not been seen before, is to use a “machine learning classifier.” (*Id.* 1:27-48.) Machine learning classifiers are software programs that are “trained” to classify new, unknown executables by studying a large group of *known* executables, *e.g.*, “known malicious executable files, known benign executable files, and [known] potentially unwanted executable files.” (*Id.*) During a “training stage,” the system studies known executables to identify features or combinations of features that are

correlated with each category of executable, *e.g.*, malicious, benign, unwanted, etc. Based on these identified features, the system builds a “classifier”—*i.e.*, a predictive model that accepts a set of values for the features as input and outputs a predicted classification. The model can then be used to classify previously unseen executables: the computer security software simply extracts from the previously unseen executable values for the features used by the classifier, inputs those values for the features into the classifier, and thus obtains a predicted classification for the executable. These are the steps of the “classification stage.” (EX- 2001 ¶¶ 27-33.)

A classifier is typically trained by studying a set of training samples (known executables) to identify a set of features that are useful for classifying future executables. From each executable, the system extracts values for the identified features and stores them in a “feature vector” representing the executable. The system then finds a mathematical function that best separates the feature vectors into respective categories. To classify a new sample, the system creates a feature vector representing the new sample—*i.e.*, the system analyzes the new sample to extract values for the preidentified set of features (a process known as “feature extraction”) and uses those values to create a feature vector representing the new sample. The system then inputs the feature vector into the classifier for classification. (EX- 2001 ¶¶ 26-31.)

Because the computational complexity (and therefore the required computational time and resources) grows with the number of features a classifier has been trained to consider, the classifier training phase may sometimes include a process known as “feature selection” or “feature pruning.” Feature selection is the process of identifying the features that are most effective and/or computationally inexpensive, and configuring the classifier to consider only those features. Feature selection at the training stage reduces the computational burden at the classification stage because the classifier will have to extract fewer features and/or perform less complex mathematical computations. (EX-2001 ¶ 25.)

2. The '869 Patent

The '869 patent improves upon the prior art by introducing an executable classification technique that performs feature selection at the *classification stage, based on data points in the executable being classified*, rather than only at the training stage. Performing feature selection during the classification stage allows the system to dynamically streamline its performance based on the executable being classified rather than always determining values for, and using, all features identified at the training stage.

The invention achieves feature selection during the classification stage by turning features “on” or “off” during that stage based on the content of the executable

being evaluated. (EX-1001 7:43-8:7; 12:61-13:11.) For example, the classifier may consider certain features (at the classification stage) only if the size of the executable being evaluated is above a given threshold or only if the executable includes a certain type of content, *e.g.*, copyright information. (*Id.* 7:43-8:7.)

To decide which features should be turned on or off, the system analyzes “static data points” in the executable. The specification teaches that a “static data point” may be a “point of reference,” such as the executable’s file size, section names, legal information, and so forth. (*See* EX-1001 5:61-6:44, 8:39-43.)

The specification provides many examples of static data points (*see id.* Table 1.1, 8:39-43), and a person of ordinary skill would recognize that the provided examples may correspond to fields defined by the “Portable Executable” (or “PE”) file format. (EX-2001 ¶¶ 29-30; EX-1001 3:43-54 (discussing the extraction of static data points from PE files as the preferred but not exclusive embodiment), *id.* 4:29-31 (describing extraction of static data points from PE files).) In such embodiments, a static data point may include a field name, *e.g.*, a predefined character string such as “File Size,” and a field value, *e.g.*, a number such as 4982784. (EX-1001 8:39.)

The claimed system can turn features on or off *during the classification stage* based on the values of the static data points extracted from the executable being classified. (*Id.* 5:61-6:44, 8:39-43, 7:43-8:7 (describing selectively turning on or off

features during “evaluation”).) For example, if the value of the “File Size” static data point is greater than a certain numerical threshold, then the classifier may determine values for fewer or additional features. (*Id.*) The set of features ultimately extracted from the executable being classified may be used to create one or more feature vectors that are input into the appropriate classifier. (*Id.* 8:43-9:26.)

Turning a feature “off” at the classification stage improves classifier performance because it allows the classifier to not use that feature in its prediction model, and thus, the classifier need not waste time and resources (1) determining a value for that feature, and/or (2) considering the value of the feature in the classification algorithm. (EX-2001 ¶ 25.) This approach contrasts with traditional approaches, where at the classification stage, the classifier had to determine values for every feature predetermined in the training stage and consider those values. (*Id.*)

Claim 1 recites the invented technique, including both the training and classification stages:

1. A computer-implemented method comprising:

identifying, by a knowledge module, static data points that may be indicative of either a harmful or benign executable file;

associating, by the knowledge module, the identified static data points with one of a plurality of categories of files, the plurality of categories of files including harmful files and benign files;

identifying an executable file to be evaluated;

extracting, by the knowledge module, a plurality of static data points from the identified executable file;

generating a feature vector from the plurality of static data points using a classifier trained to classify the static data points based on training data,

the training data comprising files known to fit into one of the plurality of categories of files,

wherein one or more features of the feature vector are selectively turned on or off based on whether a value of one or more static data points from the plurality of extracted static data points is within a predetermined range; and

evaluating the feature vector using support vector processing to determine whether the executable file is harmful.

(EX-1001 (claim 1).)

The claimed method begins with a *training* stage in which a “knowledge module” identifies static data points and associates them with categories of executables, *e.g.*, “harmful” or “benign.” The method then continues to a classification stage, which calls for “identifying an executable file to be evaluated,” extracting “static data points from the identified executable,” and “generating a feature vector from ... [those] static data points.” The feature vector is generated using a classifier that was previously “trained”—*i.e.*, at the training stage—to classify the static data points

based on training data comprising files known to fit into one of the ... categories of files.” One or more features of the feature vector are then “turned on or off” based on whether a value of at least one of the static data points extracted from the executable being evaluated is within a predetermined range. For example, the classifier might turn certain features “off” if the “File Size” of the executable is smaller than some predefined threshold. Finally, the classifier classifies the executable by using support vector processing on the resulting feature vector.

Independent claims 10, 15, 18, 32, and 46 all recite systems and methods that turn features of a feature vector on or off at the classification stage based on the value of static data points extracted from the executable being evaluated. Claims 10 and 15 require “providing the generated feature vector to one or more support vector machines to build a probabilistic model that indicates whether the executable file fits into one of the categories of files.” Claims 18, 32, and 46 require “evaluating the feature vector using a machine learning model to determine whether the executable fits into one of the categories of files.”

3. The Board's Rejection of the IPR Petition Against the Parent '844 Patent

On February 7, 2023, one of Petitioner's co-defendants (Sophos) petitioned for IPR of the '844 patent, raising the same prior art argument presented here in Ground 1—specifically, that Ideses rendered the claims of the '844 patent obvious.

See Sophos Ltd. v. Webroot Inc., IPR2023-00528, Paper 1 (PTAB Feb. 7, 2023) (“’844 Petition”). As Petitioner does here (Petition 28), Sophos argued in that petition that Ideses teaches turning features “on or off” by teaching that features can be “pruned” at the training stage. (’844 Petition at 30-31.)

On August 14, 2023, the Board refused to institute trial on Sophos’s petition because Sophos had not “demonstrated a reasonable likelihood that it will prevail.” (’844 Denial at 2.) Specifically, the Board found that the claims of the ’844 patent are “directed to the classification stage” because they (1) “require ‘extracting a plurality of static data points from an executable file’ and ‘generating a feature vector from [that] plurality of static data points *using a classifier*,’” and also because (2) they “recite that the feature vector generated from the static data points that were extracted from the executable file is used ‘to determine whether the executable file is harmful,’ confirming that the claimed method is about classification of an executable file, not creation of a classifier.” (*Id.* at 18.) The Board reasoned that Ideses fails to teach, suggest, or render obvious the idea of feature selection at the classification stage. (*Id.*)

The ’869 patent is a continuation of the ’844 patent. Like the ’844 patent, the ’869 patent claims feature selection at the classification stage.

'844 patent Claims 1, 10	'869 patent Claims 18, 32, 46
extracting a plurality of static data points from an executable file	extracting a plurality of static data points from the executable file
generating a feature vector from the plurality of static data points using a classifier trained to classify the plurality of static data points	generating a feature vector from the plurality of static data points using a classifier trained to classify the static data points
wherein one or more features of the feature vector are selectively turned on or off based on whether a value of one or more static data points from the plurality of extracted static data points is within a predetermined range	wherein one or more features of the feature vector are selectively turned on or off based at least in part on evaluation of whether a value of one of the plurality of static data points is within a predetermined range
evaluating the feature vector using support vector processing to determine whether the executable file is harmful	evaluating the feature vector using a machine learning model to determine whether the executable file fits into one of the categories of files

4. Claim Construction

The parties agree that no claim terms need be construed for this Petition, and all claim terms should carry their plain and ordinary meaning in light of the intrinsic record. (Petition 10.)

As referenced above, the parties are involved in parallel litigation where the district court has issued several claim construction orders relevant here (EX-2003 17-20; *id.* 19.) The Board's regulations require that the Board consider those constructions. 37 C.F.R. § 42.100(b).

In analyzing the '869 patent, the district court construed two terms:

- **“the static data points”** The district court held that “static data points” is not indefinite and that the phrase takes its plain and ordinary meaning. (EX-2003 19.)
- **“within a predetermined range”** The district court held that the phrase “within a predetermined range” carries its plain and ordinary meaning, and it defined “range” as a “numerical range or a subset of a ‘particular scale’ with at least a lower limit or an upper limit, but not necessarily both.” (EX-2003 19.)

In analyzing the parent '844 patent, the district court construed four additional terms that are relevant here because they appear also in the '869 patent:

- “character strings” being “within a predetermined range”** The district court held that it was not indefinite for a “character string” to be “within a predetermined range,” as recited in claim 29, and that this phrase should be given its plain and ordinary meaning. (EX-1007 18.)
- **“executable file”** The district court held that the phrase “executable file” carries its plain and ordinary meaning. (*Id.* 17.) The court rejected a proposal that would have required “executable files” to be “encrypted or packed.” (*Id.*)
 - **“support vector processing”** The district court held that “support vector processing” carries its plain and ordinary meaning, and that this meaning is “processing that involves a support vector.” (*Id.* 18) The court rejected arguments that “support vector processing” is limited to “processing with a support vector machine.” (*Id.*)
 - **“at least one processor”** The district court held that this phrase has its plain and ordinary meaning, and it rejected the argument that the phrase is a means-plus-function limitation under § 112(f). (*Id.* 19.)

5. The Level of Ordinary Skill

For purposes of this proceeding, Patent Owner does not dispute Petitioner’s articulation of the level of ordinary skill. (Petition 10.)

B. Ground 1: Ideses Fails to Render any of the Challenged Claims Obvious

The petition fails to show a reasonable likelihood of prevailing on Ground 1 because it fails to show that Ideses rendered any of independent claims 18, 32, and 46 obvious, and consequently, any of the dependent claims obvious.

As the Board has already found when refusing to institute IPR on the parent '844 patent ('844 *Denial* at 18-19), Ideses discloses the traditional idea of selecting features at the *training* stage *based on how effective* those features are and/or how computationally expensive they are to extract. (EX-1005 [0002], [0060-0061].) That approach differs from selecting features at the *classification* stage *based on static data points extracted from the executable being classified*, as recited in the challenged claims. Because Ideses fails to disclose turning features on or off *at the classification stage*, it did not render the challenged claims obvious, and the Board should deny institution under Section 314(a). 35 U.S.C. § 314(a). And, because Petitioner replicates Sophos's failed argument regarding Ideses in the '844 *Petition*, the Board alternatively should deny institution under Section 325(d) because the petition is based on "the same or substantially the same prior art or arguments previously [] presented to the Office." 35 U.S.C. § 325(d).

1. Overview of Ideses

Ideses is directed to generating classifiers that are efficient enough to be executed on resource-constrained mobile devices. (EX-1005 [0002], [0060-0061].)

Ideses observes that executing classifiers, *i.e.*, performing the classification stage, on a mobile device is problematic because “mobile devices may be resource limited, [and therefore] unable to extract the full set of features [from an executable] during run-time, and/or unable to perform the extraction within a reasonable amount of time.” (*Id.* [0060].)

The solution Ideses proposes is for a server to identify an optimal set of features *at the training stage* “so that [the subsequent] classification [stage] may take place [on a mobile device] during run-time with the resource availability of the mobile device.” (*Id.* [0061].) Ideses's training stage (as performed by the server) is shown in Figure 1, and the classification stage (as performed by the mobile device) is shown in Figure 2.

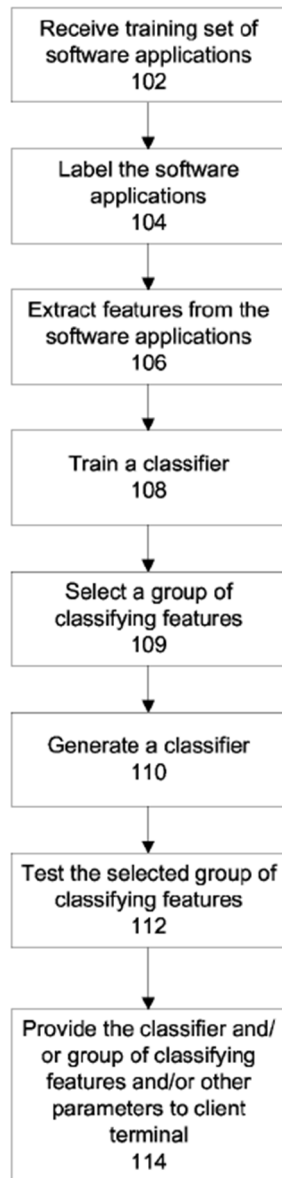


Fig. 1 (Training Stage)

(EX-1005, FIGS. 1, 2 (annotated).)

The training stage (Fig. 1) starts with the traditional steps of (1) receiving a training set of software applications (EX-1005 [0080]), (2) labeling each application in the training set with a classification type, such as “desired” or “undesired” (*id.*

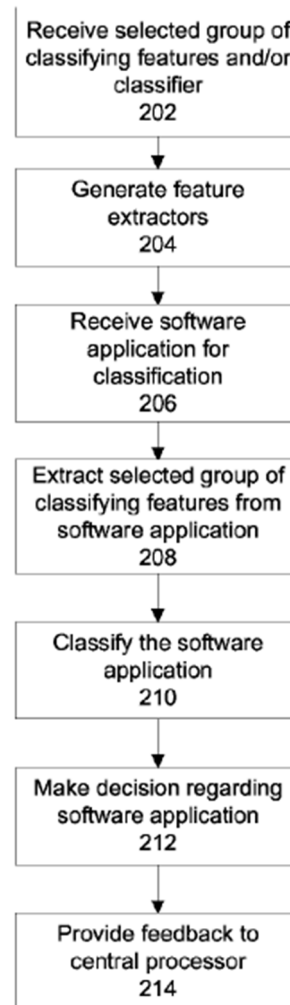


Fig. 2 (Classification Stage)

[0081]-[0085]), (3) extracting features from each application (*id.* [0086]-[0089]), and (4) using the features and labels to train a classifier, such as an SVM (*id.* [0094]-[0096]).

The training stage includes feature selection, *i.e.*, the process of selecting the features that the trained classifier will be trained to consider (step 109). Ideses teaches that “the selection [of features] is based on identifying a ***classification effectiveness rank*** for each of the features” and/or “***resource requirements*** for each of the features.” (*Id.* [0099] (emphasis added).) In other words, features are selected at the training stage “based on the tradeoff of improving classification ability, while reducing CPU requirements and/or ... memory usage.” (*Id.* [0113].) In this way, “the group of classifying features is selected to allow calculation and/or extraction of the features during run-time on the mobile device.” (*Id.* [0103].)

The classifier is then “trained based on the selected group of classifying features.” (*Id.* [0116].) The trained classifier is tested for performance and accuracy (step 112), and it is retrained (potentially with different features) if the performance is unsatisfactory. (*Id.* [0118]-[0119].) At step 114, the final classifier is sent to the mobile device for use in classifying new executables. (*Id.* [0120].)

Figure 2 illustrates the classification stage, as executed on the mobile device—*i.e.*, “execution of a classifier based on a pruned feature list.” (*Id.* [0123].) The

mobile device: (1) receives the classifier and pruned feature list from the server (step 202); (2) generates or identifies a feature extractor for the pruned feature list (step 204); (3) receives a new executable to evaluate (step 206); (4) uses the extractors to extract the pruned feature list from the new executable (step 208); (5) inputs the extracted features into the classifier to classify the new executable (step 210); (6) uses the output of the classifier to decide whether to execute the new executable (step 212); and (7) reports the outcome back to the server (step 214).

2. Ideses Fails to Render Any of the Independent Claims Obvious Because It Does Not Teach or Suggest Turning Features On or Off at the Classification Stage Based on the Executable Being Classified

As the summaries above make plain, the training-stage feature selection in Ideses differs from the classification-stage feature selection recited in the independent claims of the '869 patent. The idea in Ideses is that of traditional feature selection: at the *training* stage, the system selects the features that the classifier will be trained to consider, and it does so based on how effective and/or computationally expensive the features will be to extract and evaluate at the classification stage. Thus, at the later classification stage, the set of features that must be extracted and considered has already been predetermined, such that there is *no feature selection at the classification stage*. In contrast, the idea claimed in the '869 patent is to turn features

on or off at the *classification* stage based on the executable being classified at *that* stage. Ideses does not teach or suggest that approach.

The language of the independent claims clearly requires turning features on or off at the *classification stage* because the generated feature vector—whose features are “turned on or off”—is not generated until that stage. For example, claim 1 recites (1) “identifying an executable to be evaluated,” *i.e.*, classified at the classification stage, (2) “extracting ... static data points from the identified executable,” and (3) “generating a feature vector from the plurality of static data points,” “wherein one or more features of the feature vector are ... turned on or off based on ... [the] extracted static data points.” (EX-1001, Cl. 1.) Because the recited turning of features “on or off” is performed on the feature vector created at the classification stage, that turning on or off necessarily happens at the classification stage too.

Confirming this timing, the claims further recite that the feature vector whose features are being turned on or off is generated “using a classifier [that has already been] ***trained***”—past tense. (*Id.* at 16:22.). Independent claims 18, 32, and 46 further recite that the feature vector is used to classify the identified executable (“evaluat[ed] ... to determine whether the executable file fits into one of the categories of files”), meaning that the identified executable is the one being classified at the classification stage. (*Id.* at 18:12-14.) Claim 20 further emphasizes the distinction between the

recited training and classification stages by separately reciting them as two different sets of operations, each set separately recited as being performed by “at least one processor.” (*Id.* at 19:55-20:21.)

In sum, because the “executable” for which the feature vector is generated is the executable being classified at the classification stage, the requirement of turning features of that feature vector “on or off based on ... [the] extracted static data points” from that executable must necessarily happen at the classification stage too. Thus, the challenged claims all require turning features on or off *at the classification stage* based on the executable being classified.

The benefit of turning features on or off at the classification stage is that classifier performance can be optimized *based on the executable being classified*. Unlike the prior art, the classifier is not locked into evaluating the full set of features that was predetermined at the training stage without regard to the executable being classified at the classification stage. (EX-2001 ¶ 25.)

Ideses fails to disclose turning features on or off at the classification stage based on the executable being classified. Instead, Ideses teaches traditional feature selection at the *training stage*, which occurs before the executable being classified is ever seen.

To argue that Ideses teaches turning features on and off, Petitioner argues that Ideses teaches (1) turning features “off” by disclosing that “**features** (or their equivalents) that do not contribute (or do not significantly contribute to the classification process **are pruned or not included.**” (Petition 28 citing EX-1005 ¶ 0107) (emphasis Petitioner’s) and (2) turning features “on” by disclosing that the set of features can be “added to the group as opposed to removed” (Petition 28 citing EX-1005 ¶ 0071).

That argument fails because the cited disclosures discuss traditional feature pruning at the *training stage*—not at the *classification stage*. The disclosures on which Petitioner relies (Ideses at ¶¶ [0071] and [0107]) both appear within Ideses’s discussion of Figure 1. Indeed, the very first sentence of ¶ [0071] indicates that “[r]eference is now made to FIG. 1,” and ¶ [0107] appears within a discussion of step 109 of that figure. But Figure 1 illustrates Ideses’s *training stage*, *i.e.*, the steps starting from receiving the training set (step 102) and ending in ultimately “generat[ing] a classifier” (step 110) and “provid[ing] the classifier ... to [the] client terminal” (step 114). It is that terminal that later performs the steps of the classification stage, *as illustrated in Figure 2*. (See EX-2001 ¶¶ 63-67.)

The feature selection on which Petitioner relies therefore occurs during the *training stage*, which is *before* the system “receive[s] [the] software application for

classification” (which occurs at step 206 of Figure 2). Because the feature selection in Figure 1 (step 109) happens *before* the system receives the “software application for classification” (step 206), that feature selection *cannot* be based on the “software application for classification” (step 206), as required by the challenged claims. (*See* EX-2001 ¶¶ 64-67.)

In Ideses, the classification stage is shown in Figure 2. (EX-1005 [0123] (“Fig. 2 ... is a flow chart of a method of run-time execution of a classifier.”).) Petitioner has not argued that anything in Figure 2 reflects turning features on or off. (Petition 27-28.) Accordingly, Petitioner has not shown (and cannot show) that Ideses disclosed or suggested a malware classifier that, at the classification stage, generates a feature vector from static data points using a classifier already trained to classify those data points and turns features “on and off based on whether a value of one or more static data points from the [executable being classified] ... is within a predetermined range,” as recited by the challenged independent claims.

3. Ideses Fails to Render Any of the Dependent Claims Obvious

Because Petitioner cannot show that it is more likely than not to succeed on any of the *independent* claims, it cannot meet its burden for the challenged dependent claims. *Twinstrand Biosciences, Inc. v. Guardant Health, Inc.*, IPR2022-01115,

Paper 14, 19 (PTAB Dec. 30, 2022). Petitioner has thus failed to show it is more likely than not to prevail on Ground 1, with respect to any of the challenged claims.

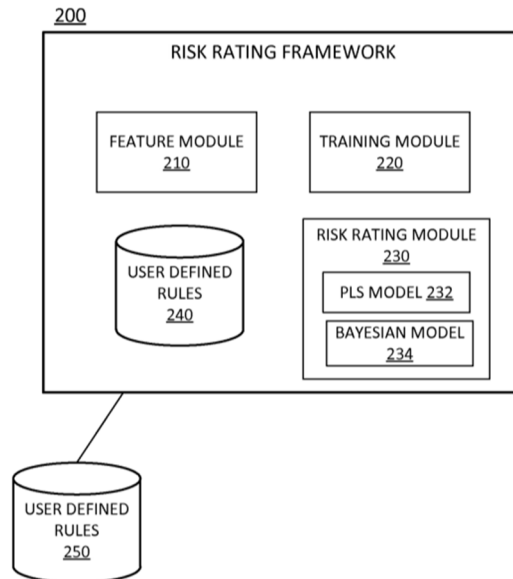
C. Ground 2: The Combination of Ideses and Sharma Fails to Render Any of the Challenged Claims Obvious

The petition fails to show a reasonable likelihood of prevailing on Ground 2 because Petitioner fails even to argue—let alone show—that Sharma remedies the deficiencies of Ideses described above. (Petition 53-63.)

1. Overview of Sharma

Sharma discloses a “risk-rating framework for mobile computer applications” or “RRF.” (EX-1006 at [0024].) The framework includes the usual machine learning stages: the training depicted in Figure 3 and the classification depicted in Figure 4. (EX-2001 at ¶ 48).

In RRF, a “Feature Module” extracts features, a “Training Module” trains classifiers on those features (or a selection thereof), and a “Risk-Rating Module” uses the classifiers to classify new executables. (EX-1006 at [0035]-[0036]; EX-2001 at ¶ 49.) Those modules are shown in Figure 2, reproduced below.



EX1006 at 3 (Figure 2).

Figure 3 shows a method “for training a RRF system”—*i.e.*, the training stage. (EX-1006 at [0037].) The training involves the usual steps of (1) “receiving a data corpus of mobile computer applications,” including “known-malware and known-benign computer applications,” before (2) “features are extracted from each of the computer applications,” and (3) “the extracted features ... are used to train the RRF system,” which can include training a “Partial Least Square model classifier, or a Bayesian model classifier,” or both. (*Id.*) In different embodiments, either “all the features are inputted to the classifier” (*Id.* at [0047]) or “selected features are determined,” such that, for example, “the top N features are selected.” (*Id.* at [0049]-[0051]). Thus, for example, “the number of PLS factors to keep” may be “the number

of factors which minimize the mean square prediction error” *i.e.*, “mean squared distance between the observed and predicted values.” (*Id.* at [0058].)

Figure 4 shows a method “for using a RRF system” “[o]nce the RRF system is trained”—*i.e.*, the classification stage. (*Id.* at [0038].) During that classification stage, “a computer application is received,” “one or more features are extracted from the computer application,” and “the PLS and/or Bayesian model classifiers ... are applied to the extracted features to determine a risk-rating of the computer application.” (*Id.*) Sharma’s classification stage includes no additional feature selection. (EX-2001 at ¶ 52).

2. The Proposed Combination with Ideses

Petitioner proposes that, “[t]o the extent ... Ideses does not disclose generating a feature vector [at the classification stage] *using a classifier trained to classify the static data points based on training data*, Sharma explicitly discloses [that feature].” (Petition at 57.) Petitioner cites Sharma’s disclosure that, when a Bayesian classifier is *trained*, “all the features are inputted to the classifier” to “determine[] if each feature contributes to the probability that the computer application is malware,” and thus, “a feature vector is constructed using a Bayesian model classifier.” (*Id.* at 58 (citing EX-1006 at [0047]).)

That argument fails because (1) Petitioner does not argue that the cited functionality of Sharma discloses turning features “on or off” at the classification stage, as would be required to remedy the shortcoming of Ideses, and (2) Petitioner cannot make that argument because the only feature selection Sharma teaches occurs at the training stage, not at the classification stage, as claimed. (EX-2001 at ¶¶ 65-73).

3. Petitioner does not argue that Sharma remedies the shortcomings of Ideses with respect to turning features on or off at the classification stage.

The Board should reject Ground 2 because Petitioner does not argue that Sharma remedies the shortcomings of Ideses discussed above—*i.e.*, turning features “on or off” at the classification stage. Instead, Petitioner argues that Sharma teaches a different limitation: “generating a feature vector *using a classifier trained to classify the static data points based on training data.*” (Petition at 57 (emphasis original).) Even if that were correct (and it is not), generating a feature vector using a trained classifier does not necessarily require turning features of the feature vector “on or off.” (EX-2001 at ¶¶ 67). Petitioner has made no attempt to explain the relationship between those two limitations, and it is too late to do so now. *See Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (The Petitioner has the “burden from the onset to show with particularity why the patent it challenges is unpatentable.”) Because Petitioner presented no such argument in its Petition, it is

precluded from presenting it for the first time in a post-institution reply. *See Everstar Merch. Co. v. Willis Elec. Co.*, No. 2021-1882, 2022 WL 1089909, at *3 (Fed. Cir. Apr. 12, 2022) (“A petitioner may not assert an ‘entirely new rationale’ in a post-institution reply”). The Board should reject Ground 2 on this basis alone.

4. Sharma does not remedy the shortcomings of Ideses with respect to turning features on or off at the classification stage.

Petitioner also *cannot* argue that Sharma teaches turning features on or off at the classification stage. (EX-2001 at ¶¶ 69-73). The cited portions of Sharma do not teach feature selection at all, let alone feature selection *at the classification stage*. (*Id.*) And the parts of Sharma that do teach feature selection (not cited by Petitioner) describe feature selection only at the training stage.

First, the portion of Sharma that Petitioner cites (EX-1006 at [0047]) does not teach feature selection at all, let alone at the classification stage. (EX-2001 at ¶ 71). To the contrary, it teaches explicitly that “all the features are input to the classifier.” (EX-1006 at [0047].) Though Sharma teaches that the classifier “determines if each feature contributes to the probability that the computer application is malware,” Sharma does not teach that any feature is turned “on or off” based on that determination. (EX-2001 at ¶ 71). Thus, the cited portion of Sharma does not teach feature selection. Moreover, the cited portion indisputably discusses the *training* stage, not the *classification* stage. (*Id.* at ¶ 73.) The cited disclosure (paragraph [0047]) teaches

that, “[t]he probability of each feature *given a computer application is a malware* is computed.” In other words, in the analysis being discussed, whether the application being analyzed “is a malware” is “*given*.” The paragraph thus plainly discusses the *training* stage, where the classifier is trained on a set of applications whose characterization—*i.e.*, malicious or benign—is “given.” (EX-2001 at ¶ 73). Consequently, the cited paragraph does not teach feature selection at all, let alone at the *classification* stage.

Second, Petitioner cannot point to anything else in Sharma that teaches turning features on or off at the classification stage. While Sharma does teach feature selection (*see, e.g.*, EX-1006 at [0049]), that selection occurs at the training stage, as was typical in the prior art. (EX-2001 at ¶ 73.) For example, Sharma teaches that “[f]or benign computer applications, ... the top N features are selected,” and “[f]or malign computer applications, the same steps as benign computer applications are performed, but those [features] which have already been selected from the benign computer applications are excluded.” (EX-1006 at [0049].) That disclosure describes selecting features for applications whose classification (“benign” or “malign”) is *known*—*i.e.*, the training stage. (EX-2001 at ¶ 73.) In contrast, claim 18, for example, recites turning features on or off in the feature vector for the “executable file” being “evaluat[ed] ... to determine whether [it] fits into one of the categories of

files”—*i.e.*, the classification stage, where the classification for the file is not known. (EX-1001 at 15.) Thus, Sharma does not teach turning features on or off at the classification stage, as claimed.

D. There Are Objective Indicia Of Non-Obviousness

In determining obviousness of the claimed invention, objective evidence of secondary considerations pertaining to non-obviousness must be considered, including long-felt but unsolved needs, failure of others, and commercial success. *In re Huang*, 100 F.3d 135, 139 (Fed. Cir. 1996) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966)). These indicia constitute independent evidence of non-obviousness that can be the most probative evidence in that regard “in avoiding the trap of hindsight when reviewing, what otherwise seems like, a combination of known elements.” *Leo Pharm. Prods., Ltd. v. Rea*, 726 F.3d 1346, 1358 (Fed. Cir. 2013).

The Board has repeatedly cautioned “that known evidence of secondary considerations should be addressed in the petition.” *See, e.g., Robert Bosch Tool Corp. v. SD3, LLC*, IPR2016-01751 (PTAB Mar. 22, 2017) Paper 15 at 23 (collecting prior Board decisions that deny institution based, at least in part, on a petitioner’s failure to address known evidence of secondary considerations). Despite Patent Owner providing evidence regarding the long-felt, unmet need for the invention in its

district court complaint against Petitioner (EX-2015, at 24-44), Petitioner fails to consider such evidence in its Petition; thus, institution should be denied.

As discussed above, a long-felt and persistent need existed to improve malware classification performance by dynamically calibrating feature vectors at the classification stage based on the content of the executable. (EX-2001 ¶ 108.) Prior art attempts were unable to improve classification performance by performing such dynamic calibration at the classification stage. Where others failed, the inventors of the '844 Patent succeeded.

Patent Owner currently accuses at least four industry participants, including Petitioner, of infringing the innovative technology claimed in the '844 patent, demonstrating the critical need and widespread industry reliance on these novel methods. (EX-2015, at 314-321.) Petitioner, for example, markets and provides the Intercept X platform, the components of which practice the systems and methods claimed in the '869 patent.

Accordingly, secondary objective indicia of non-obviousness confirm that Petitioner cannot show that it is more likely than not to succeed on any of the challenged independent claims.

IV. REAL PARTIES-IN-INTEREST

“A petition filed under section 311 may be considered only if...(2) the petition identifies all real parties in interest....” 35 U.S.C. § 312(a). The Board’s rules require identification of the real parties-in-interest in the parties’ mandatory notices. 37 C.F.R. § 42.8; *see also* Patent Trial and Appeal Board Consolidated Trial Practice Guide at 12 (Nov. 2019) (“Practice Guide”) (noting that the “core functions” of the real party-in-interest requirement “are to assist members of the Board in identifying potential conflicts, and to assure proper application of the statutory estoppel provisions”). Requiring petitioners to identify all real parties-in-interest protects a patent owner from “harassment via successive petitions by the same or related parties” and prevents parties from having a “second bite at the apple.” Practice Guide at 12. When there is a change of real party-in-interest information, a party must file a revised notice within 21 days of the change. 37 C.F.R. § 42.8(a)(3).

Here, Kaspersky Labs Limited and Kaspersky Lab Switzerland GmbH (the “Corporate Relatives”) are Petitioner’s co-defendants in the parallel district court litigation in the Western District of Texas. *See Webroot et al v. AO Kaspersky et al.*, No. 6:22-cv-00243-ADA-DTG. Both are corporate relatives of Petitioner, and both are represented by the same counsel (DeWitt LLP) in the district court litigation. Thus, it appears that Petitioner’s Corporate Relatives are in privity with Petitioner

and also real parties-in-interest in this proceeding. To date, Petitioner has not updated its mandatory notices to identify its Corporate Relatives as real parties-in-interest, but should be required to do so promptly to comply with the Board's rules. *See Adello Biologics LLC v. Amgen Inc.*, Case PGR2019-00001, Paper 11 (PTAB Feb. 14, 2019) (precedential).

V. CONCLUSION

The Board should decline to institute a IPR of the '869 patent.

Respectfully submitted,

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CERTIFICATION OF WORD COUNT

The undersigned hereby certifies that the portions of the above-captioned PATENT OWNER'S PRELIMINARY RESPONSE specified in 37 C.F.R. § 42.24 includes 10,359 words and therefore complies with the 14,000-word limit set forth in 37 C.F.R. § 42.24. This word count was prepared using Microsoft Word 365 v.2022.

Date: November 21, 2023

Respectfully submitted,

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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) and courtesy copies were also served via electronic mail, in their entireties on the following:

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