

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CROWDSTRIKE, INC.
Petitioner

v.

OPEN TEXT INC.
Patent Owner

Case IPR2023-00124
Patent No. 9,578,045

PATENT OWNER'S PRELIMINARY RESPONSE

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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	9
C.	<i>Fintiv</i> Factor 3: The Parties Will Have Invested Significant Resources in The Parallel District Court Proceeding	11
D.	<i>Fintiv</i> Factors 4 & 5: The Issues and Parties In The Petition and District Court Proceeding Significantly Overlap	15
E.	<i>Fintiv</i> Factor 6: Petitioner’s Grounds Do Not Rise to The Level Of “Compelling Evidence of Unpatentability”	17
III.	THE ’045 PATENT	19
A.	Limitations Of The Prior Art	19
B.	Innovations Of The ’045 Patent	20
C.	Claim Construction	23
D.	Level Of Ordinary Skill In The Art	25
IV.	THE BOARD SHOULD EXERCISE ITS DISCRETION TO DENY INSTITUTION UNDER 35 U.S.C. § 325(d)	25
A.	The Challenged ’045 Patent Claims Are Narrower Than the Allowed ’224 Patent Claims	26
B.	Factor (a): The Asserted Art Is Highly Similar to the Morris 340 And Capalik 570 References	31

Patent Owner’s Preliminary Response to
Petition for *Inter Partes* Review
Patent No. 9,578,045

1.	Morris Is Substantively The Same As Previously Considered Prior Art	32
2.	Capalik Is Substantively the Same As Previously Considered Prior Art	40
C.	Factor (b): The Asserted Art Is Cumulative of the Disclosures of Morris, Capalik, and Related References Presented During Examination of the '224 Continuation Patent.....	43
D.	Factor (c): The Disclosures of Both Morris and Capalik Were Before The Patent Office During Examination of the '224 Continuation Patent.	45
E.	Factor (d): Petitioner’s Arguments Overlap Arguments Considered during Prosecution.	47
F.	Factor (e): Petitioner Makes No Claim That The Examiner Erred During Prosecution.....	48
G.	Factor (f): Petitioner Presents No Evidence Warranting Reconsideration of the Examiner’s Decision Regarding Morris And Capalik.....	48
V.	THE CHALLENGED CLAIMS ARE PATENTABLE	49
A.	Petitioner Fails To Establish That Morris Renders Obvious Claims 1-4, 8-10, 12, and 16	50
1.	Overview Of Morris.....	50
2.	Morris Does Not Disclose or Render Obvious The “Originating Object” Limitations	51
B.	Petitioner Fails To Establish That Capalik, Alone or in Combination, Renders Obvious Claims 1-4, 7-8, 10-13, 16-19	57
1.	Overview Of Capalik	57
2.	Capalik Does Not Disclose or Render Obvious The “Wherein The Global Perspective Relates To One Or	

	More Other Events Related To The Event Across A Network” Limitations	60
VI.	PETITIONER’S GROUNDS FAIL TO ANTICIPATE OR RENDER OBVIOUS ALL DEPENDENT CLAIMS	68
VII.	SECONDARY OBJECTIVE INDICIA OF NONOBVIOUSNESS	68
VIII.	CONCLUSION.....	70

TABLE OF AUTHORITIES

	Page(s)
Cases	
<i>Apple Inc. v. Fintiv, Inc.</i> , IPR2020-00019, Paper 11 (PTAB Jun. 1, 2021).....	<i>passim</i>
<i>Becton, Dickinson and Co. v. B. Braun Melsungen AG</i> , IPR2017-01586, Paper 8 (PTAB Dec. 15, 2017)	25
<i>Commscope Techs. LLC v. Dali Wireless, Inc.</i> , IPR 2022-01242. Paper 23 (PTAB Feb. 27, 2023).....	17
<i>Crowdstrike, Inc. v. Open Text Inc.</i> , IPR2023-00126, Paper 7 (PTAB Mar. 9, 2023).....	38
<i>Crowdstrike, Inc. v. Open Text Inc.</i> , IPR2023-00126, Paper 8 (PTAB Mar. 16, 2023).....	39
<i>Google LLC v. EcoFactor, Inc.</i> , IPR2021-00454, Paper 9 (PTAB July 22, 2021).....	16
<i>Hakim v. Cannon Avent Grp., PLC</i> , 479 F.3d 1313 (Fed. Cir. 2007)	26
<i>Graham v. John Deere Co.</i> , 383 U.S. 1 (1966).....	68, 69
<i>In re Huang</i> , 100 F.3d 135 (Fed. Cir. 1996)	68
<i>Intellectual Ventures I LLC v. Hewlett Packard Enterprise Co.</i> , No. 6:21-cv-00596-ADA (W.D. Tex. Dec. 22, 2022).....	7
<i>Leo Pharm. Prods., Ltd. v. Rea</i> , 726 F.3d 1346 (Fed. Cir. 2013)	69
<i>mCom IP, LLC v. Cisco Sys., Inc.</i> , No. 6:22-00261-ADA (W.D. Tex. Oct. 20, 2022).....	7

Patent Owner's Preliminary Response to
Petition for *Inter Partes* Review
Patent No. 9,578,045

<i>Nespresso USA, INC., v. K-FEE System GMHB,</i> IPR2021-01221, Paper 11 (PTAB May 6, 2022)	25, 33
<i>Nokia of Am. Corp. v. Good Kaisha IP Bridge 1,</i> IPR2022-00755, Paper 9 (PTAB Nov. 2, 2022).....	11, 15
<i>NXP USA, Inc. v. Impinj, Inc.,</i> PGR2022-00005, Paper 20 (PTAB Aug. 25, 2022)	10, 14
<i>Robert Bosch Tool Corp. v. SD3, LLC,</i> IPR2016-01751, Paper 15 (PTAB March 22, 2017)	69
<i>Sand Revolution II, LLC v. Continental Intermodal Group-Trucking LLC,</i> IPR2019-01393, Paper 24 (PTAB Jun. 16 2020)	9, 16
<i>Sonrai Memory Ltd. v. Kingston Tech. Co., Inc.,</i> No. 6:21-cv-1284-ADA (W.D. Tex. Oct. 18, 2022)	6
<i>Sophos Ltd. v. Webroot Inc.,</i> IPR2023-00491, Paper 1 (Jan. 20, 2023).....	8, 13
<i>Sophos Ltd. v. Webroot Inc.,</i> IPR2023-00528, Paper 1 (Feb. 7, 2023).....	8, 13
<i>Sophos Ltd. v. Webroot Inc.,</i> IPR2023-00633, Paper 1 (Mar. 2, 2023)	8, 13
<i>Sophos Ltd. v. Webroot Inc.,</i> IPR2023-00699, Paper 1 (Mar. 8, 2023)	8, 14
<i>Trend Micro Incorporated v. Webroot Inc.,</i> IPR2023-00655, Paper 1 (Mar. 2, 2023)	8, 13
<i>Trend Micro Incorporated v. Webroot Inc.,</i> IPR2023-00657, Paper 1 (Mar. 3, 2023)	8, 13
<i>Trend Micro Incorporated v. Webroot Inc.,</i> IPR2023-00662, Paper 1 (Mar. 3, 2023)	8, 13, 14

<i>Trend Micro Incorporated v. Webroot Inc.</i> , IPR2023-00677, Paper 1 (Mar. 6, 2023)	8, 14
<i>Trend Micro Incorporated v. Webroot Inc.</i> , IPR2023-00692, Paper 1 (Mar. 7, 2023)	8, 14
<i>Volkswagen Group of America, Inc. v. Stratosaudio, Inc.</i> , IPR 2021-00717, Paper 12 (PTAB Nov. 12, 2021).....	32, 45
Statutes	
35 U.S.C. § 314(a)	1, 4
35 U.S.C. § 325(d)	<i>passim</i>
Other Authorities	
H.R. Rep. No. 112–98, pt. 1 (2011), 2011 U.S.C.C.A.N. 67	1

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., Open Text Inc., v. AO Kaspersky Lab et al.</i> , Case No. 6:22-cv-00243-ADA-DTG, Order Granting Third Amended Scheduling Order, Dkt. 142 (W.D. Tex., Dec. 27, 2022)
2008	<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)
2009	<i>Webroot, Inc. and Open Text Inc., v. AO Kaspersky Lab et al.</i> , Case No. 6:22-cv-00243-ADA-DTG, Defendants' Opening Claim Construction Brief, Dkt. 86 (W.D. Tex., Oct. 28, 2022) (excerpted)

Patent Owner's Preliminary Response to
Petition for *Inter Partes* Review
Patent No. 9,578,045

Exhibit	Description
2010	<i>Webroot, Inc. and Open Text Inc., v. AO Kaspersky Lab et al.</i> , Case No. 6:22-cv-00243-ADA-DTG, Defendants' Reply Claim Construction Brief, Dkt. 110 (W.D. Tex., Dec. 6, 2022) (excerpted)
2011	<i>Webroot, Inc. and Open Text Inc., v. AO Kaspersky Lab et al.</i> , Case No. 6:22-cv-00243-ADA-DTG, Scheduling Order, Dkt. 50 (W.D. Tex., Sept. 28, 2022) (excerpted)
2012	<i>Open Text Inc. et al., v. AO Kaspersky Lab</i> , Case No. 6:22-cv-00243-ADA-DTG, Defendant AO Kaspersky Lab's Preliminary Invalidity Contentions Exhibit 4A (W.D. Tex., Sept. 14, 2022) (excerpted)
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>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)
2016	<i>Open Text Inc. et al., v. AO Kaspersky Lab</i> , Case No. 6:22-cv-00243-ADA-DTG, First Amended Complaint for Patent Infringement, Dkt. 80 (W.D. Tex., Oct. 27, 2022)
2017	<i>Webroot, Inc. and Open Text Inc., v. Trend Micro Inc.</i> , Case No. 6:22-cv-00239-ADA-DTG, First Amended Complaint for Patent Infringement, Dkt. 53 (W.D. Tex., Sept. 7, 2022)
2018	<i>Webroot, Inc. and Open Text Inc., v. Sophos, Ltd.</i> , Case No. 6:22-cv-00240-ADA-DTG, Second Amended Complaint for Patent Infringement, Dkt. 76 (W.D. Tex., Oct. 24, 2022)

Patent Owner's Preliminary Response to
Petition for *Inter Partes* Review
Patent No. 9,578,045

Exhibit	Description
2019	File History for Continuation Patent, U.S. Patent No. 10,257,224
2020	U.S. Patent Application Publication No. 2008/0016570 to Capalik ("Capalik 570")
2021	<i>Webroot, Inc. and Open Text Inc., v. AO Kaspersky Lab. et al.</i> , Case No. 6:22-cv-243-ADA-DTG, March 9, 2022 Transcript of Motions Hearing, Dkt. 133 (W.D. Tex. Dec. 15, 2022) (excerpted)
2022	U.S. Patent No. 10, 257,224 to Joseph Jaroch ("’224 Patent")
2023	Joseph Jaroch LinkedIn

Open Text Inc (“Patent Owner”) submits this Preliminary Response to the Petition of CrowdStrike, Inc. (“Petitioner”) seeking *inter partes* review (“IPR”) of the following U.S. Patent No. 9,578,045 (“the ’045 patent”).

I. INTRODUCTION

The Board should decline to institute IPR of the ’045 patent because the petition duplicates the parties’ district court litigation efforts, is cumulative of evidence the Board already considered during the examination of U.S. Patent No. 10,257,224 (“the ’224 continuation patent”), which resulted from a continuation of the same application as the ’045 patent, and is otherwise a weak petition that merely parrots already-rejected arguments about substantially the same art.

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 ’045 patent would have the opposite effect. The ’045 patent is involved in *four* parallel litigation proceedings. Those cases involve twelve other patents asserted by Patent Owner, some or all of which Patent Owner has asserted against four defendants. Petitioner has petitioned for review of only five of the twelve patents asserted against it. Only

two of the other four defendants have sought review of any of the other twelve patents asserted against Petitioner. Moreover, the defendants in related cases (including Petitioner) have collectively asserted twenty-two patents against Patent Owner.

Petitioner waited nearly nine months to file its petition, and the district court proceedings are now well underway. The parties have already completed infringement contentions, invalidity contentions, and claim construction for the '045 patent and eight other patents asserted by patent owner. The district court has scheduled a series of three *Markman* hearings, which began on March 14, 2023, with a hearing that included the '045 patent. On March 16, 2023, the district court issued an order containing its final claim constructions rulings for the '045 patent. Subsequent district court proceedings involving the '045 patent will continue regardless of whether the Board institutes IPR because the majority of the patents would not be involved in the Board proceedings.

Simply put, the '045 patent is one part of a very complex case. 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-2021 52.) *See* Section II.A, *infra*. 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 these bases alone.

Second, the Board should deny institution under 35 U.S.C. § 325(d) because the petition presents substantially the same art and even the same arguments previously considered by the Patent Office during prosecution of the '224 continuation patent—which resulted from a continuation of the same application as the '045 patent. The prosecution history of the '224 continuation patent is relevant here because its claims are similar to—and broader than—the claims in the '045 patent. The '224 continuation patent's claims are broader because they do not include the '045 patent's additional detailed requirements for information regarding the identity and activities of a potential malware object. The Patent Office allowed these broader claims to issue over substantively the same prior art and arguments included in the petition. Therefore, even though the '045 patent was filed earlier than the '224 continuation patent, the narrower claims of the '045 patent logically would not be unpatentable based on substantially the same prior art over which the Patent Office subsequently allowed even broader claims.

Petitioner relies on the Morris and Capalik references, which are substantively the same as the Morris 340 and Capalik 570 references that were before the Examiner during prosecution of the '224 continuation patent. And, the petition presents

the same arguments regarding Morris 340 that were included in an International Search Report the Examiner considered and rejected when allowing the more narrow claims of the '224 continuation patent. Therefore, the Board also should reject institution under Section 325(d).

Third, the Board should deny institution because Petitioner failed to demonstrate a reasonable likelihood that it will prevail on the merits. Ground 1 fails because Morris does not disclose the “originating object,” and Petitioner wrongly cites GenesisActor information for this limitation. Morris 340 and the International Search Report identify the same GenesisActor information, and the Examiner rightly rejected it. Ground 2 fails because Capalik instructs the skilled artisan to observe computer objects running on a *single device*, whereas the '045 patent teaches obtaining information about computer objects operating *across a network*. Unable to provide the requisite analysis to show the limitations were in the prior art or to support its motivations to combine or modify the references, Petitioner improperly uses the challenged claims as a roadmap to reach its obviousness conclusions, applying improper hindsight.

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 a set of 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 (Jun. 1, 2021).

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 '045 patent is currently asserted against three other defendants in a now-consolidated case in which a *Markman* hearing has already been held and a claim construction order has issued. Petitioner's narrow stipulation does not extend to any 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 the 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 related district court

litigation. And the circumstances and timing of the district court case indicate that no such stay would be granted.

Patent Owner currently asserts twelve patents, including the '045 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.) A stay is unlikely to be granted in the WDTX proceeding because Petitioner's IPR, even if instituted, would not simplify the issues in the district court. First, Petitioner has only challenged five of the twelve patents Patent Owner has asserted against Petitioner in the district court—ten of which are unrelated to the '045 patent. While other defendants, e.g., Sophos and TrendMicro, have also filed IPR petitions, even if proceedings were instituted on all of these IPR petitions the claims of at least six patents asserted against Petitioner would remain unchallenged at the PTAB.

Second, Patent Owner has asserted the '045 patent in cases against three other defendants—cases which the district court has consolidated with the parallel case between Petitioner and Patent Owner. Judge Albright is unlikely to stay the entire consolidated case due to the large number of claims and counterclaims that are unrelated to the '045 patent. *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). And it is highly unlikely that Petitioner’s case alone would be stayed while the other three cases (as well as a fourth related case against an additional defendant) proceed through substantive claim construction and validity decisions regarding the ’045 patent. A stay would result in unnecessary complexity and potentially require the district court to duplicate its own proceedings regarding the ’045 patent. As U.S. Magistrate Judge Gilliland observed during a December 9, 2022 hearing on Patent Owner’s motion to amend its complaint, 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-2021 52.) The chart below summarizes the asserted patents, defendants, and pending PTAB cases:

Patent Owner's Preliminary Response to
Petition for *Inter Partes* Review
Patent No. 9,578,045

Patent	Kaspersky	CrowdStrike	Forcepoint	Sophos	Trend Micro	IPR
U.S. 8,726,389	X	X	X	X	X	X (IPR2023-00556-CS) (IPR2023-00633-Sophos)
U.S. 10,599,844	X	X	X	X	X	X (IPR2023-00528-Sophos) (IPR2023-00662-TM)
U.S. 8,418,250	X	X		X	X	X (IPR2023-00289-CS) (IPR2023-00655-TM) (IPR2023-00699-Sophos)
U.S. 9,413,721			X	X		X (IPR2023-00491-Sophos)
U.S. 9,578,045	X	X		X	X	X (IPR2023-00124-CS) (IPR2023-00677-TM)
U.S. 10,257,224	X	X		X	X	X (IPR2023-00126-CS) (IPR2023-00657-TM)
U.S. 10,284,591	X	X		X	X	X (IPR2022-01522-CS) (IPR2023-00692-TM)
U.S. 8,856,505	X	X		X	X	
U.S. 8,181,244		X		X	X	
U.S. 8,201,243	X	X	X	X	X	
U.S. 8,719,932	X	X	X	X	X	
U.S. 11,409,869	X	X	X	X	X	
U.S. 8,763,123		X		X		
U.S. 8,438,386			X			
U.S. 10,025,928			X			

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. Continental Intermodal Group-Trucking LLC*, IPR2019-01393, Paper 24 at 7 (PTAB Jun 16 2020)).) But *Sand Revolution* addressed a case in which no stay had been granted, the parties relied only on the general evidence regarding trends in granting or denying stays, and the Board found this factor neutral, noting “*the absence of specific evidence.*” *Sand Revolution II*, IPR2019-01393, Paper 24 at 7 (emphasis added). Here, where there *is* specific evidence—including assertion of the '045 patent against other parties, consistent decisions from the WDTX that stays are not granted when patents not involved in IPRs are present, and Petitioner's own admission of the complexity of the parallel litigation (Petition 71.)—this factor weighs in favor of a discretionary denial.

Because the likelihood of a district court stay is extremely low, this factor weighs strongly in favor of discretionary denial.

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. The WDTX's median time-to-trial puts the expected trial date at mid-July 2024, which is consistent with the currently scheduled

trial date of August 19, 2024. Should the Board institute, its final written decision deadline would be June 20, 2024, just two months before the scheduled trial date.

Petitioner's assertion that further delay is likely due to case complexity and a pending transfer motion is both incorrect and unsupported by evidence. Uncertainty in a trial date, itself, does not weigh against exercising discretion. *See 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. In addition, Petitioner's pending transfer motion was denied on March 7, 2023 so no delay is likely there¹. Accordingly, Factor 2 is neutral.

¹ *Webroot, Inc. et al v. Sophos LTD*, Case No.: 6:22-cv-00240-ADA-DTG, Transcript of Motions Hearing, (W.D. Tex. March 7, 2023). PO will seek the Board's approval to file the relevant excerpt of the publicly available transcript as an Exhibit once it is released, or alternatively, the Court's final order once it is entered on the docket.

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 the Board's exercising its discretionary denial authority.

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 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 I*, IPR2022-00755, Paper 9 at 11 (PTAB Nov. 2, 2022) (citing *Fintiv*, Paper 11 at 9-10).

Here, the parties long ago exchanged infringement and invalidity contentions for the '045 patent, in July 2022 and September 2022, respectively. The district court conducted a *Markman* hearing that included the '045 Patent on March 14, 2023 and issued its final claim construction order on March 16, 2023. (EX-2007-3, EX-

2008.) Fact discovery on the '045 Patent will begin shortly under the district court's schedule.

- Fact Discovery Opens: Apr. 18, 2023 (EX-2007 6.)
- Close of Fact Discovery: Jan. 18, 2024 (*Id.* at 7.)
- Close of Expert Discovery: Mar. 12, 2024 (*Id.*)
- Dispositive Motions: May 7, 2024 (*Id.* 8.)
- Pretrial Disclosures: June 4, 2024 (*Id.*)
- Final Pretrial Conference: Aug. 1, 2024 (*Id.* 9.)
- Trial: Aug. 19, 2024 (*Id.*)

Having the Board duplicate this substantive analysis and potentially issue a conflicting claim construction order promotes the same inefficiency *Fintiv* sought to avoid. *Fintiv*, IPR2020-00019, Paper 11 at 9.

Indeed, Petitioner here has advocated for a different claim construction in the district court than in the petition. In the district court, Petitioner argued that certain method steps in the challenged claims had to take place in a specific order. (EX-2009 35-37; EX-2010 18-20.) However, as addressed below, Petitioner's Ground 1 hinges on the fact that the method steps can take place in any order. (Petition 12-24.) While the latter position is consistent with the district court's final claim construction ruling, (*see* EX-2008 10), the district court's claim construction is

appealable, and there has been no indication from Petitioner that it will waive its appeal or otherwise abandon the stepwise claim construction it pressed in the district court. Petitioner's shifting positions between the district court and its petition further underscores why the Board should deny institution under Section 314(a).

Petitioner also delayed nine months after receiving Patent Owner's March 4, 2022 complaint, four-and-a-half months after receiving Patent Owner's infringement contentions, and two-and-a-half months after serving its invalidity contentions before filing its petition. (EX-2011 1-5.) 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. One of these petitions was only accorded a filing date on March 16, 2023. *See* IPR2023-00556 (Paper No. 5).²

² The nine petitions filed by Petitioner's Codefendants were all filed more than ten-and-a-half months after the March 4, 2022 complaint. *See Sophos Ltd. v. Webroot Inc.*, IPR2023-00491, Paper 1 (Jan. 20, 2023); *Sophos Ltd. v. Webroot Inc.*, IPR2023-00528, Paper 1 (Feb. 7, 2023); *Trend Micro Incorporated v. Webroot Inc.*, IPR2023-00655, Paper 1 (Mar. 2, 2023); *Sophos Ltd. v. Webroot Inc.*, IPR2023-00633, Paper 1 (Mar. 2, 2023); *Trend Micro Incorporated v. Webroot Inc.*, IPR2023-00657, Paper 1 (Mar. 3, 2023); *Trend Micro Incorporated v. Webroot Inc.*, IPR2023-

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 '045 patent on two fronts 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."). Even if Petitioner were correct that the Board's FWD would likely issue two months before the district court trial, a FWD would do little to reduce inefficiencies when issued at such a late stage in the district court. By then, the parties will have already invested significant resources in and concluded all substantive

00662, Paper 1 (Mar. 3, 2023); *Trend Micro Incorporated v. Webroot Inc.*, IPR2023-00677, Paper 1 (Mar. 6, 2023); *Trend Micro Incorporated v. Webroot Inc.*, IPR2023-00692, Paper 1 (Mar. 7, 2023); *Sophos Ltd. v. Webroot Inc.*, IPR2023-00699, Paper 1 (Mar. 8, 2023).

claim construction, fact discovery, expert discovery, and be well into their work on dispositive motion briefing and trial preparation.

Petitioner's previous admissions regarding the complexity of the district court litigation (Petition 71) emphasize the fact that, regardless of when the Board's FWD issues, the WDTX litigation will move forward. And in doing so, WDTX will resolve the fate of the '045 patent along with the other eleven patents asserted against Petitioner, as well as Petitioner's two counterclaim patents. 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.

D. *Fintiv* Factors 4 & 5: The Issues And Parties In The Petition And District Court Proceeding Significantly Overlap

Fintiv factors 4 and 5, which consider the overlap of the issues and parties between the petition and the parallel district court litigation, also weigh in favor of discretionary denial. As stated, Petitioner is a defendant in the WDTX case in which Patent Owner asserts infringement of the '045 patent. Thus, Factor 5 weighs in favor of denial. *See, e.g., Nokia*, IPR2022-00755, Paper 9 at 13.

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 72.) 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, even a broader stipulation than Petitioner offers would not prevent the invalidity theories in the petition from being litigated in the district court. Patent Owner has asserted the '045 patent against three other defendants in cases that have all now been consolidated into a single case that includes Petitioner. Petitioner's codefendants assert the same prior art references in their district court invalidity contentions. Indeed, Codefendant Kaspersky has identified the same set of references—Morris, Capalik and Van Oorschot—in its preliminary invalidity contentions. (EX-2012 1.) Codefendant Trend Micro has also identified Morris and Capalik. (EX-2014 15-17, 45-48.) And Codefendant Sophos has identified Capalik. (EX-2013 31, 35.) None of Petitioner's codefendants have provided a stipulation that they will not litigate the same prior art and grounds contained in the petition.

That is, even with Petitioner's narrow stipulation, the prior art Petitioner asserts in its petition is identical to prior art being litigated to trial in WDTX.

Accordingly, Factor 4 weighs in favor of discretionary denial. *See 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 6: Petitioner's Grounds Do Not Rise To The Level Of "Compelling Evidence of Unpatentability"

Factor 6 weighs against institution because the Examiner allowed the '224 continuation patent to issue over prior art that was substantially the same as asserted in the petition, including one reference that received extensive analysis in an International Search Report and a second reference that the Examiner considered in an office action. To meet the standard for a compelling unpatentability challenge, the Petition 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.*, IPR 2022-01242, Paper 23, 3 (PTAB Feb. 27, 2023) (citing Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation at 4. (June 21, 2022)("Guidance Memo").) "[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 Guidance 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, LLC*, IPR 2022-01242, Paper 23, 4 (February 27, 2023). 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, *Fintiv* factors 1-5 plainly favor discretionary denial thus requiring Petitioner to show compelling merits which it cannot do.

As discussed below, Petitioner's prior art grounds contain critical deficiencies and do not demonstrate a reasonable likelihood of—let alone plainly lead to—a conclusion that at least one claim is unpatentable. *See* Section V, *infra*. Moreover, Petitioner relies on the same disclosures and arguments in the prior art that the Patent Office has already considered. *See* Section IV, *infra*. There is nothing compelling or new presented by the petition that was not already considered by the Patent Office.

In sum, four 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 and deny institution.

III. THE '045 PATENT

A. Limitations Of The Prior Art

Network forensics generally relates to intercepting and analyzing network events to discover the source of security attacks. (EX-1001 1:22-24.)

At the time of invention of the '045 patent, network forensics systems used network forensics tools, e.g., network sniffers and packet capture tools, to detect and capture information associated with communication sessions. (*See* EX-1001 1:24-33.) Although such network forensics tools passively collect network traffic, the tools reside at a network edge, e.g., a location where an organization's network interfaces with the Internet. (*See* EX-1001 1:33-43; EX-2001 ¶ 27.) That is, a network forensics tool, such as a network sniffer, may reside at a network edge and may receive network events concerning the network from one or most hosts or systems, but network edge devices cannot establish any sort of context from within the host or system generating the event. (*See* EX-1001 1:40-43.) As a result, network forensics tools could not obtain useful information within a host or establish any sort of

context from within a host that was generating and/or receiving network events. (See EX-1001 3:49-52; EX-2019 385-86.)

Without information from within the host or system generating the event, prior art network forensics tools were insufficient to identify and address the threats faced by modern computer networks. (See EX-1001 1:46-49.) Although a network edge device may be able to monitor, capture, and analyze communications traffic, the network edge device could not provide details regarding files modified, registry entry changes, or new processes created within the network core. (See EX-1001 1:63–2:12.) The network edge device thus had no way of knowing to what extent a virus may have impacted computing devices on the network, what additional files may have become infected, or what operating processes and/or objects are linked to the virus. (See EX-1001 2:12-16.)

B. Innovations Of The '045 Patent

The '045 patent is entitled “Method and Apparatus for Providing Forensic Visibility into Systems and Networks,” and describes and claims a system and method that improved on traditional network forensics tools used to discover or identify security issues on computer networks. (EX-1001 Abstract, 2:36-38.)

Unlike traditional network forensics tools, the invention claimed in the '045 patent creates forensic visibility into the computing devices on the communication

network to identify malware or other security issues in the operation of those devices. (EX-1001 2:36-38.) In particular, the invention claimed in the '045 patent improves network security by gathering an “event,” generating “contextual state information,” obtaining a “global perspective” for the event, generating an “event line” comprising information relating to the “event,” and transmitting the generated “event line” that includes information for the event. (*See* EX-1001 cl. 1.) The described and claimed systems and methods intercept network events, create audit trails for each individual event by correlating the event to objects such as their originating processes, devices, and/or users, and establish a global perspective of the objects. (EX-2001 ¶ 31.)

In addition to analyzing the behavior of objects to identify those that are potentially malicious, malware detection is further improved by understanding the context of the event and computer objects of interest. (EX-1001 2:39-43 (“The system filters may be built upon the same or similar technology related to behavior monitoring and collection, as discussed in U.S. Application Ser. No. 13/372,375 filed Feb. 13, 2012, ‘Method and Apparatus for Dealing with Malware.’”)) (incorporating Morris 340 “in its entirety for all that it teaches and for all purposes”).) In many cases, a potentially malicious object is identified by the system as a result of other events that provide information as to whether the code is malicious. (EX-2001 ¶ 32.)

The '045 patent further explains that, in addition to context information, the patented systems and techniques can also use information from the network to obtain a global perspective of the network operation. (EX-2001 ¶ 36.) The combination of contextual information and global perspective enables detection of new zero-day threats, including objects created from objects (or similar objects) that have been identified previously as malicious. (EX-2001 ¶ 36.) As malicious code and threats evolve more quickly, this combined approach improves detection time and enhances overall network security. (EX-2001 ¶ 36.)

The '045 patent further discloses technical improvements to forensics systems by “assembling” or “generating” an “event line” based on the contextual information and global perspective. (EX-1001 9:50-58.) The generation of the event line makes it easier for end users to “identify events, and/or instances of malware, that require more immediate attention”—thereby improving the accuracy and efficiency of identifying additional malicious code, as well as enabling administrators to more readily analyze malware, assess vulnerabilities, and correct damage done by the originating objects. (EX-1001 9:45-49.)

Thus, the '045 patent describes and claims systems and methods that provide more efficient and accurate identification of malware and improve the identification of other malware (and corresponding events) that might otherwise go undetected in

prior systems, thereby improving system performance and reducing the required resources. (EX-2001 ¶ 38.)

C. Claim Construction

Petitioner does not offer a construction for any claim term, and purports to apply the ordinary and customary meaning of the claim terms as understood by a person having ordinary skill in the art (“PHOSITA”) with the exception of the “wherein” clause of claims 1 and 8. (Petition 5-7). Petitioner challenged Patent Owner’s (“PO’s”) plain and ordinary meaning interpretation of these terms in the district court but argued that the Board should “apply PO’s interpretation for purposes of this proceeding.” (Petition 7.)

In the parallel district court litigation, the Court construed the following terms—all of which are present in the claims challenged by Petitioner in its petition—in its claim construction order (EX-2008):

Claim Term	District Court Construction
“global perspective” (cl. 1) ³	Not indefinite. Plain-and-ordinary meaning wherein the plain-and-ordinary meaning is “information about

³ EX-2008 8.

Claim Term	District Court Construction
	events related to the monitored event across a network”
“wherein the global perspective for one or more related events to the at least one event across a network” (cl. 1) ⁴	Not indefinite “wherein the global perspective [is] for one or more related events to the at least one event across [other devices on] a network”
“event line” (cl. 1) ⁵	Plain-and-ordinary meaning
“gathering an event ... generating contextual state information for the event ... obtaining a global perspective for the event . . .”	Order of steps: no order.

⁴ EX-2008 9.

⁵ EX-2008 9.

Claim Term	District Court Construction
(cls. 1, 8, 16) ⁶	

D. Level Of Ordinary Skill In The Art

A PHOSITA at the time of the invention of the '045 patent had a bachelor's degree in an accredited program of electrical engineering, computer engineering, or computer science, or a similar discipline, and have 2-3 years of practical work experience in the general fields of electrical engineering, computer science, networking, communications, and/or device and network security. (EX-2001 ¶ 43.) More advanced degrees and/or training in a related discipline can compensate for shorter work experience. (EX-2001 ¶ 43.)

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). A § 325(d) discretionary denial may be based on prior art previously considered during the prosecution of a related patent. *See Nespresso USA, INC., v. K-FEE System GMHB*, IPR2021-01221, Paper 11, 17-18 (PTAB May

⁶ EX-2008 10.

6, 2022) (denying institution under §325(d) where “Petitioner focused on the very same disclosure in [the prior art] that was evaluated during the prosecution history of the...patent family.”) (emphasis omitted)

Six factors are considered when evaluating discretionary denial under Section 325(d): (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; (c) the extent to which the asserted art was evaluated during examination; (d) the extent of the overlap between the arguments made during examination and the Petitioner's arguments; (e) whether Petitioner has pointed out how the Examiner erred during examination; (f) the extent to which additional evidence and facts presented in the petition warrant reconsideration of the prior art or arguments. *See Becton, Dickinson and Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8, 17-18 (PTAB Dec. 15, 2017) (designated as informative). These factors weigh heavily against institution.

A. The Challenged '045 Patent Claims Are Narrower Than The Allowed '224 Patent Claims

The prosecution history of the '224 continuation patent is relevant here because its claims are similar to—and broader than—the claims in the '045 patent. The Patent Office allowed these broader claims to issue over substantively the same prior art and arguments included in the petition. Therefore, even though the '045 patent

is earlier in time than the '224 continuation patent, the narrower claims of the '045 patent logically would not be unpatentable based on prior art over which the Patent Office subsequently allowed even broader claims.

“Continuing applications” such as the application that gave rise to the '224 continuation patent “may present broader claims than were allowed in the parent.” *Hakim v. Cannon Avent Grp., PLC*, 479 F.3d 1313, 1317 (Fed. Cir. 2007). The art over which the '224 continuation patent's broader claims were allowed does not disclose or render obvious the similar but narrower limitations of the '045 patent. The Petition thus merely asks the Office to review, again, the disclosures of Morris and Capalik for the same limitations it did not find in the prior art during prosecution of the '224 continuation patent.

For example, a side-by-side comparison of '045 patent claim 1 against '224 continuation patent claim 1 shows (in bold examples) that the '045 patent's claims include additional, narrowing limitations:

'224 Patent	'045 Patent
Claim 1[P] A method comprising:	Claim 1[P] A method comprising:

Claim [1(a)] gathering an event defining an action of a first object acting on a target, Claim [1(a)(i)] wherein the first object is executed on a device;	Claim [1(a)] gathering one or more events defining an action of a first object acting on a target;
Claim [1(b)] generating contextual state information for the event by correlating the event to an originating object of the first object;	Claim [1(b)] generating a contextual state for at least one of the one or more events by correlating the at least one event to an originating object, Claim [1(b)(i)] the contextual state including an indication of the originating object of the first object and an indication of at least one of a device on which the first object is executed and a user associated with the first object;
Claim [1(c)] obtaining a global perspective for the event based on the contextual state information,	Claim [1(c)] obtaining a global perspective for the at least one event by obtaining information associated with one or more of the first object and the

Claim [1(c)(i)] wherein the global perspective comprises information associated with one or more of the first object and the originating object,	originating object, the information including at least one of age, popularity, a determination as to whether the first object is malware, a determination as to whether the originating object is malware, Internet Protocol (IP) Address, and Uniform Resource Locator (URL) information,
Claim [1(c)(ii)] and wherein the global perspective relates to one or more other events related to the event across a network;	Claim [1(c)(i)] wherein the global perspective for one or more related events to the at least one event across a network;
Claim [1(d)] generating an event line comprising information relating to the event, Claim [1(d)(i)] wherein the information relates to at least one of the first object, the action of the first object, the target, and the originating object; and	Claim [1(d)] assembling an event line including details associated with the at least one event, the details including information uniquely identifying the first object, the action of the first object, the target, and the originating object; and

Claim [1(e)] transmitting the generated event line.	Claim [1(e)] transmitting the assembled event line.
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For example, whereas the '045 patent claim [1(d)] requires that the event line details include sufficient information to “**uniquely identify**” the first object, the action of the first object, the target, and the originating object, the '224 patent claim [1(d)] provides that the event line information “**relates to**” the first object, the action of the first object, the target, and the originating object. As another example, the '045 patent claims are narrower as shown in [1(b)(i)'s] requirement for “**and an indication of at least one of a device on which the first object is executed and a user associated with the first object.**” And, as yet another example, limitation [1(c)] of the '045 patent is narrower than [1(c)] of the '224 patent because it specifies the additional requirement that “**the information include[e] at least one of age, popularity, a determination as to whether the first object is malware, a determination as to whether the originating object is malware, Internet Protocol (IP) Address, and Uniform Resource Locator (URL) information.**” As such, the Petitioner asks the Board to find disclosures in the asserted art that it did not previously find, without any suggestion that the Office erred during its earlier examination of this same art against the same claim limitations. The Office should reject the Petitioner's request to duplicate earlier analysis.

Here, discretionary denial under 35 U.S.C. § 325(d) is proper because the Patent Office considered Morris 2012/0260340 (“Morris 340 ” or Exhibit 1009), which is a primary reference used during prosecution of the '224 continuation patent, and that reference is substantively the same as the primary reference—Morris—used in Ground 1.

Likewise, the Office considered Capalik 2008/0016570 (“Capalik 570” or Exhibit 2020) during prosecution of the '224 continuation patent, which is a continuation of the '045 patent. Capalik 570 is substantively the same as Capalik, which Petitioner relies upon for Ground 2 of its Petition. Furthermore, during prosecution of the '224 continuation patent, the Examiner explicitly considered the same argument now relied on by Petitioner in connection with an International Search Report for Morris 340 and the prior art disclosure of Kumar 2013/0298244 (“Kumar” or Exhibit 1004) in combination with Capalik 570. After consideration of these same prior art arguments the Petition now asserts against the narrower claims of the '045 patent, the Examiner allowed the broader claims of the '224 continuation patent.

B. Factor (a): The Asserted Art Is Highly Similar To The Morris 340 And Capalik 570 References.

Petitioner's asserted primary references, Morris and Capalik, are substantively the same as art analyzed during prosecution of the '224 continuation patent, and over which the '224 continuation patent's broader claims were allowed.

1. Morris Is Substantively The Same As Previously Considered Prior Art

The asserted Morris reference is substantively the same as prior art that was before the Examiner in an International Search Report. The prosecution history includes an analysis of Morris 340 by the International Searching Authority, including the same arguments now duplicated in the petition and citations to many identical disclosures. (EX-2019 265-273 (International Search Report for international application no. PCT/US2014/036832 mailed Sept. 29, 2014).) Where the Board determines that there is no material difference between the art considered during examination and the petition, it may move on to the second step of the *Advanced Bionics* framework to analyze petitioner's arguments regarding Examiner error. *See Volkswagen Group of America, Inc. v. Stratosaudio, Inc.*, IPR 2021-00717, Paper 12, 11 (PTAB Nov. 12, 2021) ("Because the same reference was cited during prosecution, there is no material difference between Christensen and the prior art involved during examination. Given these facts, we need not further evaluate factor (b), whether Christensen is cumulative, nor factor (d), the extent of overlap in arguments regarding Christensen. Thus, we find that the same reference was previously presented to the Office, and we move on to the second part of the *Advanced Bionics* framework."). And asserted art may be cumulative of the art considered during prosecution for purposes of the Section 325(d) analysis even if that reference is not

related or in the same family bears on the Section 325(d) analysis. *See, e.g., Nespresso USA, INC., v. K-FEE System GMHB*, IPR2021-01221, Paper 11, 15-18 (PTAB May 6, 2022)

For example, the International Search Report cited paragraphs 46, 56, 58, and 61 from Morris 340 against claims 1 and 2. (EX-2019 274.) Each of those paragraphs has a verbatim, or near-verbatim, counterpart in Morris, with corresponding language in bold below:

International Search Authority Report at EX-2019 270 (annotated)	
Regarding claim 1, Morris teaches a method (abstract) comprising: gathering one or more events defining an action of a first object acting on a target (para [0056] discloses an agent program running on a remote computer searches a local database for information related to events, where, as further disclosed in para [0056], events define the actions or behaviors of an object acting upon another object. The event includes the key of the object performing the act [claimed first object] and the identity of another object which the act is being performed on [claimed target]); generating a contextual state for at least one of the one or more events by correlating the at least one event to an originating object (para [0055], discloses generating metadata [claimed contextual state], where, as further disclosed in para [0058], the metadata includes Genesisactor information which includes the parent of the object being performed [claimed originating object]). For example in the case of a software installation, this would be the key of the object that the user or system first executed and that initiated the software installation process, e.g. Setup.exe), the contextual state including an indication of the originating object of the first object (para [0058], the metadata includes Genesisactor information which includes the parent of the object being performed [claimed originating object of the first object]) and an indication of at least one of a device on which the first object is executed and a user associated with the first object (para [0119] discloses metadata may include operating system of the remote computer that encountered the object [claimed indication of a device] and author of the object [claimed user associated with the first object]); obtaining a global perspective for the at least one event by obtaining information associated with one or more of the first object and the originating object (para [0125], a collective view of the object, i.e. its meta data and behaviors, across all agents that have seen it, provides an informed view [thus, a collective view [claimed global perspective] of the object is established by allowing agents to analyze and share obtained metadata relating to objects]. Further, as disclosed in para [0056] and [0058], the metadata information may include information of the object performing the act [claimed first object], the event type and the parent object [claimed originating object]), the information including at least one of age (para [0134], objects having a specific determination, location, popularity, age or any other criteria known by or derived by the database), popularity (para [0134]), a determination as to whether the first object is malware (para [0015], determine whether or not the object is malware), a determination as to whether the originating object is malware (determine whether or not the object is malware. Also see para [0058]); and Internet Protocol (IP) Address or Uniform Resource Locator (URL) information (para [0056] the IP address or URL); assembling an event line including details associated with the at least one event, the details including information uniquely identifying each of the first object (para [0046], the details of an object that are passed to the base computer may be in the form of a signature or "key" that uniquely identifies the object), the action of the first object (para [0055]-[0056] metadata details captured and sent include events, which define the actions or behaviors of an object), the target (para [0056] victim), and the originating object (para [0058] parent object); and transmitting the assembled event line (para [0046]). The details of an object that are passed [claimed transmitting] to the base computer. Further, as disclosed in para [0055], metadata details are passed [claimed transmitting] to the base computer.). Regarding claim 2, Morris teaches wherein the information associated with the one or more of the first object and the originating object is obtained from a community database (para [0061] community database of metadata information); and wherein the event line is transmitted to an end recipient (para [0125], collected metadata can be retrieved by a human [claimed end recipient]).	
Morris 340	Morris

[0046] The details of an object 4 that are passed to the base computer 3 may be in the form of a signature or “key” that uniquely identifies the object 4. This is mainly to keep the data storage and transmission requirements as minimal as possible. This key may be formed by a hashing function operating on the object at the remote computer 2.	[0086] The details of an object 4 that are passed to the base computer 3 are preferably in the form of a signature or “key” that uniquely identifies the object 4. This is mainly to keep down the data storage and transmission requirements. This key may be formed by a hashing function operating on the object at the remote computer 2.
[0056] “Events: these define the actions or behaviours of an object acting upon another object or some other entity. The event may include three principal components: the key of the object performing the act (the “Actor”), the act being performed (the “Event Type”), and the key of the object or identity of another entity upon	[0105] “Events’: these define the actions or behaviours of an object acting upon another object or some other entity. The event has three principal components: the key of the object performing the act (the “Actor”), the act being performed (the “Event Type”), and the key of the object or identity of an other entity upon which the act is

which the act is being performed (the “Victim’). For example, the event data might capture the identity, e.g. the IP address or URL, of a network entity with which an object is communicating, another program acting on the object or being acted on by the object, a database or IP registry entry being written to by the object, etc. While simple, this structure allows a limitless series of behaviours and relationships to be defined. Examples of the three components of an event might be: <table><tr><th>Actor</th><th>Event Type</th><th>Victim</th></tr><tr><td>Object 1</td><td>Creates Program</td><td>Object 2</td></tr><tr><td>Object 1</td><td>Sends data</td><td>IP Address 3</td></tr><tr><td>Object 1</td><td>Deletes Program</td><td>Object 4</td></tr><tr><td>Object 1</td><td>Executes</td><td>Object 2</td></tr><tr><td>Object 2</td><td>Creates registry key</td><td>Object 4</td></tr></table>	Actor	Event Type	Victim	Object 1	Creates Program	Object 2	Object 1	Sends data	IP Address 3	Object 1	Deletes Program	Object 4	Object 1	Executes	Object 2	Object 2	Creates registry key	Object 4	being performed (the “Victim’). While simple, this structure allows a limitless series of behaviours and relationships to be defined. Examples of the three components of an event might be: <table><tr><th>Actor</th><th>Event Type</th><th>Victim</th></tr><tr><td>Object 1</td><td>Creates Program</td><td>Object 2</td></tr><tr><td>Object 1</td><td>Sends data</td><td>IP Address 3</td></tr><tr><td>Object 1</td><td>Deletes Program</td><td>Object 4</td></tr><tr><td>Object 1</td><td>Executes</td><td>Object 2</td></tr><tr><td>Object 2</td><td>Creates registry key</td><td>Object 4</td></tr></table>	Actor	Event Type	Victim	Object 1	Creates Program	Object 2	Object 1	Sends data	IP Address 3	Object 1	Deletes Program	Object 4	Object 1	Executes	Object 2	Object 2	Creates registry key	Object 4
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Object 2	Creates registry key	Object 4																																			
[0058] “Genesisactor: the key of an object that is not the direct Actor of an event but which is the	[0107] “Genesisactor' the key of an object that is not the direct Actor of an event but which is the ultimate																																				

ultimate parent of the event being performed. For example in the case of a software installation, this would be the key of the object that the user or system first executed and that initiated the software installation process, e.g. Setup.exe.	parent of the event being performed. For example in the case of a software installation, this would be the key of the object that the user or system first executed and that initiated the Software installation process, e.g. Setup.exe.
[0061] Thus, the metadata derived from the remote computers 2 can be used at the community database 7 to define the behaviour of a process across the community. As mentioned, the data may include at least one of the elements mentioned above (file size, location, etc.) or two or three or four or five or six or all seven (or more elements not specifically mentioned here). The data stored in the community database 7 provides	[0110] Thus, the meta data derived from the remote computers 2 can be used at the community database 7 to define the behaviour of a process across the community. As mentioned, the data may include at least one of the elements mentioned above (file size, location, etc.) or two or three or four or five or six or all seven (or more elements not specifically mentioned here). This may be used accordingly to model, test and create new automated rules for use in

an extensive corollary of an object's creation, configuration, execution, behaviour, identities and relationships to other objects or entities that either act upon it or are acted upon by it. This may be used accordingly to model, test and create new automated rules and heuristics for use in the community database 7 and as rules that may be added to those held and used in the local database of the remote computers 2 to identify and determine the response of the remote computers 2 to new or unknown processes and process activity.	the community database 7 and as rules that may be added to those held and used in the local database of the remote computers 2 to identify and determine the response of the remote computers 2 to new or unknown processes and process activity.
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Petitioner relies heavily on these same paragraphs from Morris in the petition. (Petition 9, 11-13, 18). The Examiner considered this analysis of Morris 340 and ultimately allowed the broader claims of the '224 continuation patent to issue.

Patent Owner's Preliminary Response to
Petition for *Inter Partes* Review
Patent No. 9,578,045

NON-PATENT LITERATURE DOCUMENTS				Remove
Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.		Ts
/G.B.S./	1	European Extended Search Report in Application 14791882.5, mailed 2016-11-11, 8 pages.		
/G.B.S./	2	PCT International Preliminary Report on Patentability in PCT/US2014/036832, mailed 2015-11-03, 8 pages.		
/G.B.S./	3	PCT International Search Report in PCT/US2014/036832, mailed 2014-09-29, 9 pages.		
/G.B.S./	4	US Patent Application 14/270,069, Amendment and Response filed 2016-03-16, 16 pages.		

(EX-2019 312 (annotated).)

The '224 continuation patent cites Morris 340, and Morris 340—though not within the same family as Morris—incorporates the Morris reference on which Petitioner relies for Ground 1. (EX-1009 [0010].) Morris, and the disclosures in Morris advanced by Petitioner, was thus part of the disclosures included, considered, and rejected during prosecution of the '224 continuation patent.

Morris and Morris 340 are substantially the same with respect to Petitioner's arguments. They share a common inventor, Melvyn Morris, and title, "Methods and Apparatus for Dealing with Malware." Both Morris and Morris 340 disclose the use of the "GenesisActor" information to perform the claimed malware identification and mitigation methods. (*Compare* EX-1008 [0107]-[0108] *with* EX-1009 (Morris 340) [0058]-[0059].) Likewise, both Morris and Morris 340 teach gathering and

sending data to a base computer for analysis. (*Compare* EX-1008 Claim 1 *with* EX-1009 (Morris 340) Claim 1.)

Petitioner, in its reply brief in support of its petition for *inter partes* review of the '224 continuation patent, (*Crowdstrike, Inc. v. Open Text Inc.*, IPR2023-00126, Paper 7 (PTAB Mar. 9, 2023)) (“the '224 continuation patent petition”) argued that the Examiner “could ... have assumed” Morris 340 was not prior art to the '224 continuation patent, and therefore declined to consider it. *Id.* at 3-4. To the extent Petitioner repeats that argument here, it is wrong and should be rejected. *See also Crowdstrike, Inc. v. Open Text Inc.*, IPR2023-00126, Paper 8 (PTAB Mar. 16, 2023) (PO sur-reply).

In the '224 continuation patent petition, Petitioner argued that Morris 340 might not be prior art because it was filed within one year of the application that resulted in the '224 continuation patent and both documents list Joseph Jaroch as an inventor, so “the question is whether the pertinent disclosures in Morris 340 are attributable to [Mr. Jaroch].” *Id.* at 3. But Petitioner’s speculation that Mr. Jaroch is responsible for those disclosures is not supported by the record. Petitioner’s argument relies on a comparison of the '224 continuation patent with Morris 340, but that is not the relevant comparison when assessing where the disclosures in Morris 340 originated. As noted above, Morris and Morris 340 include nearly identical

disclosures for purposes of the analysis at issue. The Morris application published on January 18, 2007, and does not list Mr. Jaroch as an inventor. (*See* EX. 1005 at 1.) Notably, Mr. Jaroch was not even employed by the assignee, Prevx Limited, at the time Morris was filed (June 30, 2006), so it is not surprising he was not a named inventor. (EX-2023.) The Morris 340 application published on October 11, 2012. The disclosures at issue from Morris 340—which again, are nearly identical to Morris—are plainly not attributable to Mr. Jaroch because he was not an inventor on the Morris application in which those disclosures first appeared. And, since the relevant Morris 340 disclosures are not attributable to Mr. Jaroch, Morris 340 is prior art to the '224 continuation patent claims and was considered by the Examiner as demonstrated above. (EX-2019, 305 (quoted above).)

Moreover, the '224 continuation patent's prosecution history shows that the Examiner considered WO2012110501, which incorporates Morris by reference and also identifies Morris in an International Search Report. (*See, e.g.*, EX-2019 177, 178, 199, 252, 255, 312).

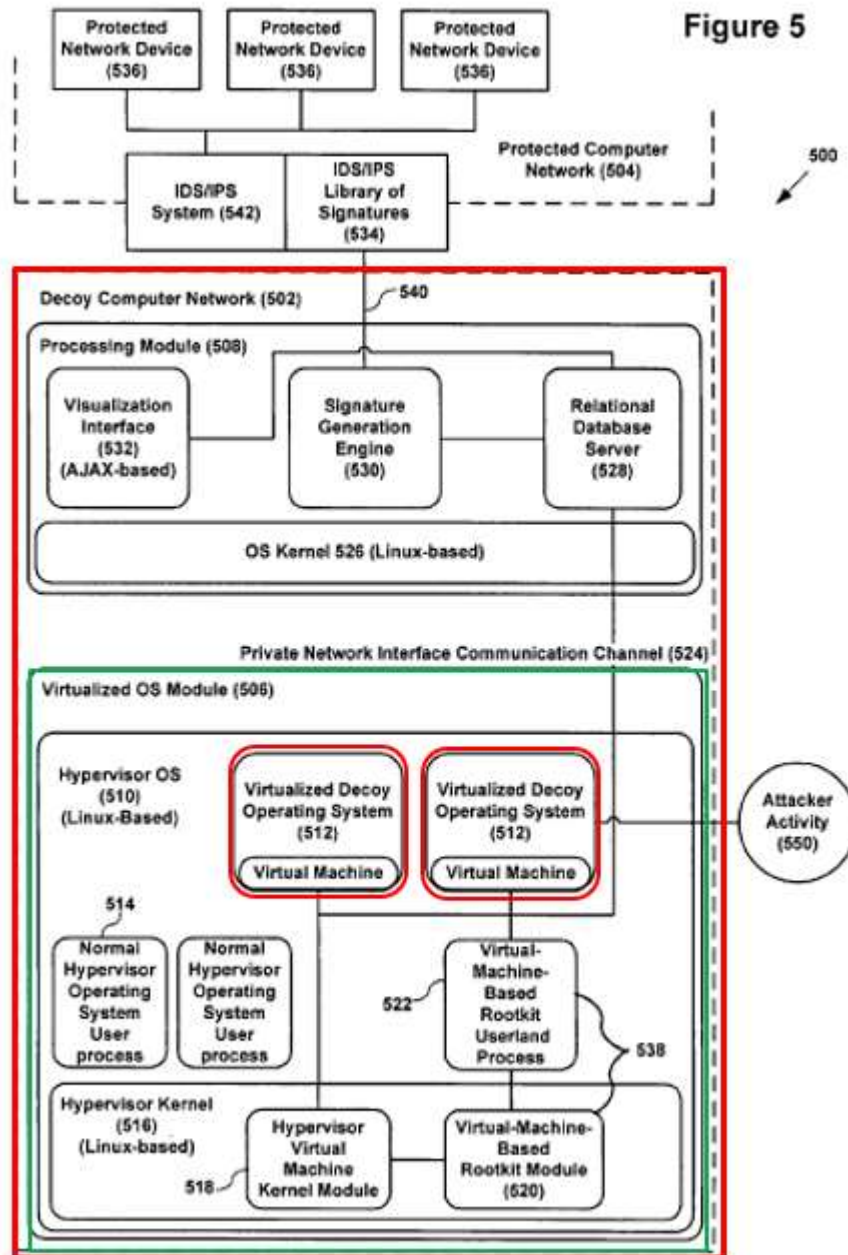
2. Capalik Is Substantively The Same As Previously Considered Prior Art

Like Morris, the asserted Capalik reference is substantially the same as prior art considered by the Examiner during prosecution of the '224 continuation patent with respect to Petitioner's arguments. Capalik expressly states that it is related to

Capalik 570. (*See* EX-1008 [0003] (“This application relates to U.S. patent application Ser. No. 11/788,795 [Capalik 570], entitled ‘System and Method for Analyzing Unauthorized Intrusion into a Computer Network,’ filed on Apr. 20, 2007.”).) During examination, the Examiner initially rejected but subsequently allowed, with no amendment to the claims, the ’224 continuation patent over arguments based on Capalik 570.

Specifically, the Patent Office considered the disclosures of Capalik 570 in an office action, initially rejecting independent claim 1 of the ’224 continuation patent based on a combination of Kumar and Capalik 570. (EX-1002 101-107.) As discussed in further detail below, the Office Action’s reliance on Kumar directly mirrors Petitioner’s argument based on Capalik, due to similarities in the reference’s single-device architecture. *See* Section V.B.2, *infra*. Based on the applicant’s argument that such an architecture does not disclose “global perspective” that “relates to one or more events...across a network,” the Examiner allowed the ’224 continuation patent. (EX-2019 292-294; *see also* Section V.B.2, *infra*.)

Capalik 570 includes the same “decoy computer network” architecture as Capalik, i.e., a series of virtual machines running on a single device. (EX-2019 292-94.)



EX-2020, Capalik 570, Fig. 5 (annotated).

Capalik also uses the same single device architecture as Kumar and Capalik 570. (See, e.g., EX-1008 Fig. 1.)

Again, the '224 continuation patent was allowed, as Petitioner notes, after the applicant argued that an architecture that relies on a single device, and not multiple connected devices on a network, cannot “teach or suggest a ‘global perspective’ that ‘relates to one or more other events related to the event across a network.’” (Petition 5; EX-2019 293-294.) The petition merely repeats this argument, as discussed below, and for the same reasons the '224 continuation patent was issued over the highly similar prior art, the '045 patent is patentable, over Petitioner's prior art. (*See* Section V, *infra*.) The Board need not revisit the same arguments based on highly similar prior art.

This factor weighs in favor of discretionary denial under 325 U.S.C. § 325(d).

C. Factor (b): The Asserted Art Is Cumulative Of The Disclosures of Morris, Capalik, And Related References Presented During Examination Of The '224 Continuation Patent.

The asserted art is cumulative because, as discussed in the previous section, both primary references include substantially the same disclosure as closely related art submitted to and considered by the Examiner during prosecution of the '224 continuation patent. Morris is cited in, and substantively the same as, Morris 340. Capalik is cited in, and substantively the same as, Capalik 570. And Petitioner advances the same Capalik-based argument that the Examiner previously considered

with respect to Kumar during prosecution of the '224 continuation patent. (Section IV.B.2, *supra*.)

For Morris, many of the pertinent sections on which Petitioner relies are identical to corresponding disclosures in Morris 340, in particular related to the function of the GenesisActor—a key feature of Petitioner's unpatentability arguments. (*Compare* EX-1005 [0107]-[0108] *with* EX-1009 [0058]-[0059] *and* Petition 14-15.) Importantly, sections of Morris that are highly relevant to the petition—including the GenesisActor relied on by the Petition and discussed below—appear verbatim in the specification of the '045 patent, and are thus cumulative of what was already presented to the Patent Office. Specifically, Morris recites that the “GenesisActor” is “the key of an **object that is not the direct Actor of an event but which is the ultimate parent of the event being performed. For example in the case of a software installation, this would be the key of the object that the user or system first executed and that initiated the software installation process, e.g. Setup.exe.**” (EX-1005 [0107].) This bolded description of “GenesisActor” appears in the background of the '045 patent. (*Compare* EX-1005 [0107] *with* EX-1001 8:45-51.)

As discussed above and in further detail below, the Examiner considered disclosures of Kumar in view of Capalik 570, which were limited to a single device and

which are cumulative of Capalik's similarly limited disclosure. (*Compare* EX-2019 102-102 *with* Petition 52; *see also* Section V.B.2, *infra*.)

This factor weighs in favor of discretionary denial under 325 U.S.C. § 325(d).

D. Factor (c): The Disclosures of Both Morris And Capalik Were Before The Patent Office During Examination Of The '224 Continuation Patent.

The Examiner's familiarity with Morris 340 and Capalik 570 makes it reasonable to conclude that the Examiner was also familiar with the essential substance of Petitioner's asserted Morris and Capalik art when she allowed the broader '224 patent claims. *Volkswagen Group of America, Inc. v. Stratosaudio, Inc.*, IPR 2021-00717, Paper 12, 12-13 (PTAB Nov. 12, 2021). "[I]t is reasonable to conclude that the Examiner was familiar with the essential substance of [the asserted art] because the Examiner considered [the asserted art's] U.S. counterparts and used those references to reject certain claims and allow others during prosecution of the [challenged patent].")

Morris 340 was considered extensively during prosecution of the '224 continuation patent. (*See* EX-2019 270-274.) Indeed, over five single-spaced pages and 20-plus paragraphs, the written opinion of the International Searching Authority provides its analysis of Morris 340. Strikingly, the International Search Report advances many of the exact same arguments against the '224 continuation patent as

the petition against the '045 patent. (*Compare* 2019 270 (mapping Gensesisactor information to originating object information) with Petition 12-13) (same); *compare* EX-2019 270 with Petition 14-15 (same mapping of the “obtaining a global perspective” limitation). And, as discussed above (*see* Section IV.A-B, *supra*) the disclosures that Petitioner maps from Morris to the challenged '045 patent claims are substantively identical to what the Examiner considered from Morris 340. The Examiner had the benefit of the International Search Report during prosecution, and the '224 continuation patent's file history indicates that the Examiner expressly considered it. (EX-2019 270, 275, 312.)

As with Morris, the same arguments that Petitioner now advances based on Capalik are in the prosecution history of the '224 continuation patent of the '045 patent, yet the Examiner allowed the '224 continuation patent to issue over Capalik 570. (*Compare* Petition 45-49 with EX-2019 293-94.) To overcome an initial rejection based on the combination of Kumar and Capalik 570, the applicant *successfully* argued that the “*across a network*” limitations were not disclosed in either Capalik 570 or Kumar. (EX-2019 293-94.)

This factor weighs in favor of discretionary denial under 325 U.S.C. § 325(d).

E. Factor (d): Petitioner's Arguments Overlap Arguments Considered During Prosecution.

As set forth above, (*See* Section IV.A-C), Petitioner's arguments merely resurrect arguments presented during prosecution. The Examiner was provided with the International Search Report analyzing Morris 340 over five single-spaced pages. (*See, e.g.*, EX-1002 270-274.) Petitioner makes the same arguments in connection with the Morris disclosure here, particularly with regard to the GenesisActor limitation, over which the '224 continuation patent issued. (*Compare* EX-1005 [0107]-[0108] *with* EX-2019 270 *and* Petition 14-15.)

Similarly, the Examiner considered the same arguments that Petitioner now advances with respect to Capalik, yet allowed the '224 continuation patent over Capalik 570. (*Compare* Petition 45-49 *with* EX-2019 293-94.) And to overcome an initial rejection based on the combination of Kumar and Capalik 570, applicant ***successfully*** argued that the "*across a network*" limitations were not present in either Capalik 570 or Kumar. (EX-1002 293-94.) The applicant distinguished Kumar as "focused on the integrity of a single application running on a single device" to argue that the '224 continuation patent should be allowed over Kumar and Capalik 570. (EX-2019 at 293.) And Petitioner rehashes the single-device architecture argument against the '045 patent that the Patent Office rejected during later prosecution of the '224 continuation patent. (Petition 45-49; *compare* EX--2019 293-94 *with* Petition

52; *see also* Section V.B.2, *infra*.) Nevertheless, Petitioner asks the Board to set aside that prior determination and revisit the same substantive disclosures.

This factor weighs in favor of discretionary denial under 325 U.S.C. § 325(d).

F. Factor (e): Petitioner Makes No Claim That The Examiner Erred During Prosecution

Neither Petitioner nor its expert argues or suggests that the Examiner erred during examination. (*See generally* Petition.) Likewise, although both Petitioner and its expert considered the file history of the '224 continuation patent as part petition for IPR of the '224 continuation patent, neither assert that the Examiner erred in examining the prior art disclosed or the arguments made during prosecution. (*See generally* Petition.) Petitioner identifies no disagreement with the Patent Office's determination regarding Morris 340, Kumar, or Capalik 570.

This factor weighs in favor of discretionary denial under 325 U.S.C. § 325(d).

G. Factor (f): Petitioner Presents No Evidence Warranting Reconsideration Of The Examiner's Decision Regarding Morris And Capalik

For the reasons stated above, Petitioner's primary references, i.e., Morris and Capalik, are cumulative of prior art, i.e., Morris 340, Kumar, and Capalik 570, which were presented to the Examiner during prosecution of the '224 continuation patent, which has the same specification and claims priority to the '045 patent. Petitioner

therefore presents no non-cumulative evidence that warrants consideration during IPR. This factor weighs in favor of discretionary denial under 325 U.S.C. § 325(d).

In short, the 325(d) factors all favor denying institution.

V. THE CHALLENGED CLAIMS ARE PATENTABLE

Petitioner presented two grounds challenging the claims of the '045 patent:

Ground 1	Section 103(a)	Obvious over Morris; alternatively, obvious over Morris in view of Van Oorschot	Claims 1-2, 4, 8-10, 12, and 16; alternatively, Claims 1-4, 8-10, 12, and 16
Ground 2	Section 103(a)	Obvious over Capalik; alternatively, obvious over Capalik in view of Van Oorschot	Claims 1-2, 4, 7-10, 15-18; alternatively, 1-4, 7-10, 12, 15-18

For the reasons stated below, the petition fails to establish that Petitioner has a reasonable likelihood of prevailing as to any of the challenged claims.⁷

A. Petitioner Fails To Establish That Morris Renders Obvious Claims 1-4, 8-10, 12, And 16

Petitioner's arguments based on Morris, alone or in combination with Van Oorschot, are unlikely to succeed, as the Patent Office issued the '224 continuation patent over an analysis by the International Searching Authority of substantially the same Morris arguments presented in the petition with respect to the '045 patent. (Section IV, *supra*.) In other words, the Petition advances the same arguments rejected by the patent office during prosecution of the '224 continuation patent, which has the same specification as, and broader claims with fewer limitations than, the '045 patent. Petitioner fails to provide a convincing reason to revisit that decision.

1. Overview Of Morris

Morris was filed on June 30, 2006 and published on January 18, 2007. Morris discloses systems and methods for classifying computer objects as malware and determining the protection that a remote computer has from malware. (EX-1005

⁷ As this is a preliminary response, Patent Owner does not address every limitation of every claim. However, this in no way indicates that other limitations and claims are disclosed or rendered obvious by the prior art; indeed, they are not.

[0001].) As detailed above in Section IV, Morris is cited by Morris 340, which was the subject of extensive analysis presented over five pages and twenty paragraphs in the International Search Report in the prosecution history of the continuation patent. (EX-2019 270-275.) The petition regurgitates the same arguments presented to the Examiner in the International Search Report. (*Compare* EX-2019 270 (identifying GenesisActor information as the “*originating object*” information) *with* Petition 14-15 (same).)

2. Morris Does Not Disclose or Render Obvious The “Originating Object” Limitations

Petitioner relies on the same analysis of Morris to support each of the “originating object” limitations, i.e., 1(b), 8(e)(ii), and 16(g)(i), in both Grounds 1 and 2. (Petition 14-15, 32, 35-36.)

Limitation	Claim Language
1(b)	<i>“generating a contextual state for at least one of the one or more events by correlating the at least one event to an originating object”</i>
8(e)(ii)	<i>“generate a contextual state for at least one of the one or more events by correlating the at least one event to an originating</i>

	<i>object, the contextual state including an indication of the originating object of the first object”</i>
16(g)(i)	<i>“the contextual state including an indication of the originating object of the first object and an indication of at least one of a device on which the first object is executed and a user associated with the first object</i>

Morris does not disclose or render obvious the “originating object” limitations for at least the reasons discussed below.

Petitioner contends that the “originating object” limitation is satisfied by the GenesisActor information disclosed in Morris. (Petition 14-15 (Morris discloses that additional contextual information is captured, including the “Genesisactor” (i.e., *originating object*) which is the “key of an object that is not the direct actor of an event but which is the ultimate parent of the event being performed.” In the case of an event being software installation, “this would be the key of the object that the user or system first executed and that initiated the software installation process, e.g., Setup.exe. Morris’s disclosure of correlating “Genesisactor” data with an event is consistent with the ’045 Patent’s disclosure of generating a contextual state.”) (internal citations and emphases omitted).)

Contrary to Petitioner's argument, Morris does not disclose or render obvious the "originating object" limitations of the claims because the '045 patent explicitly distinguishes the GenesisActor from the claimed *originating object*. (EX-2001 ¶51.) The '045 patent states that "[c]ontextual state information may include...originating processes"⁸ and "[a]dditionally...may include GenesisActor information...." (EX-1001 8:42-45 (emphasis added).) The '045 patent goes on to state that:

GenesisActor information may contain the object that is not the direct Actor of an event but which is the ultimate parent of the event being performed. For example, in the case of a software installation, the GenesisActor would be the object that the user or system first executed and that initiated the software installation process, e.g., Setup.exe.

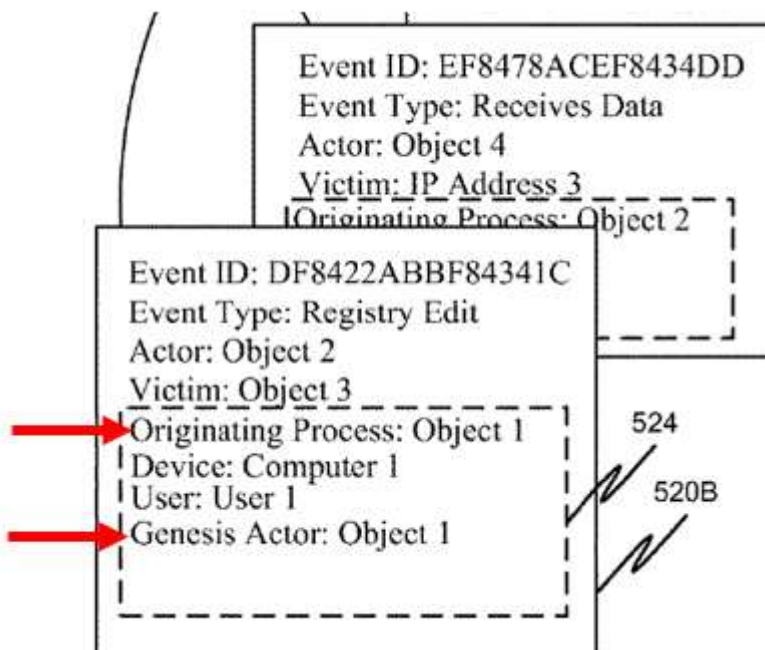
(EX-1001 8:45-51.)

GenesisActor information is not originating object information. (EX-2001 ¶52.) Rather, "the GenesisActor is determined based on a chain of previous events"

⁸ The '045 patent uses "originating object" and "originating process" interchangeably. (See EX-1001 17:39-42 ("Moreover, as illustrated in FIG 5B, the **originating process or object** may determined [sic] based on a previous event that initiated or otherwise created the current process and/or object.").)

and is an object that represents information about the *ultimate* parent of the first object. (EX-1001 17:30-50; EX-2001 ¶52.) The exemplary embodiments described in the specification of the '045 patent distinguish the GenesisActor information as distinct from the originating object information. (EX-1001 17:32-38 (“[A] context 520B comprising an *origination process*, Device, user, and in some instances, a **GenesisActor** may further supplement or enhance the Event ID, Event Type, Actor, and Victim.”) (emphasis added); *see also* Fig. 5B; EX-2001 ¶53.)

Figure 5B in the '045 patent confirms that GenesisActor information is distinct from the originating object information.



(EX-1001, Fig. 5B (excerpted and annotated).) As shown in Figure 5B of the '045 patent, a contextual analysis that includes the “Originating Process” and the “Genesis Actor” may be applied to captured events. (EX-1001 17:30-50.) The specification explains that context 520B comprises an “origination process,” device, and user, and that “a GenesisActor may further *supplement* or enhance the” information. (*Id.* (emphasis added).)

A PHOSITA would understand that originating object and GenesisActor information—because they are distinct—may each be uniquely important to detecting malware, such as in circumstances where information about the ultimate parent of an object does not provide contextual information indicating a threat but the information about the originating object does. (EX-2001 ¶¶ 55-56.) In these circumstances, GenesisActor information is not a proxy for originating object information. (EX-2001 ¶¶ 55-56.) Petitioner does not address the distinction between originating object information and GenesisActor information. Accordingly, Morris does not disclose “*generating a contextual state for at least one of the one or more events by correlating the at least one event to an originating object.*”

Morris's disclosure does not render obvious the challenged claim limitations, *nor does Petitioner argue that it does.* (Petition 14-15 (not asserting that Morris renders obvious this limitation); EX-2001 ¶ 57.) Morris discloses various types of

metadata that might be captured and evaluated through its heuristic processes. (EX-1005 [0104]-[0109].) For example, Morris identifies metadata including: events—the actions or behaviors of an object acting upon another object; identities—the attributes of an object; GenesisActor—the ultimate parent of the event; ancillary data; and event checksums. (*Id.*) That is, Morris does not disclose capturing the originating object as part of the collected metadata. (EX-2001 ¶ 57.) Thus, there is no suggestion or teaching by Morris to modify Morris's method to generate contextual state information by correlating the event to an originating object, nor does Petitioner identify a reason a PHOSITA would have been motivated to make such a modification. (EX-2001 ¶ 57.)

While Petitioner relies on a combination of Morris and Van Oorschot in its challenge of Claim 1, the petition relies on Van Oorschot's teachings only with respect to limitation 1(b)(i)'s unique portion of this limitation—“*an indication of at least one of a device on which the first object is executed [or] a user associated with the first object.*” Therefore, Petitioner's combination of Morris and Van Oorschot still relies on Morris's teachings as allegedly disclosing limitation 1(b)'s “*generating contextual state information for the event by correlating the event to an originating object of the first object,*” which it does not do. Accordingly, the petition does not show a prior art teaching of these limitations under Ground 1.

B. Petitioner Fails To Establish That Capalik, Alone Or In Combination, Renders Obvious Claims 1-4, 7-8, 10-13, 16-19

Petitioner's Ground 2—based on Capalik, alone or in combination with Van Oorschot—is unlikely to succeed. Capalik is closely related to another Capalik reference, Capalik 570, that was previously considered by the Patent Office as a secondary reference, over which the Patent Office allowed the '224 continuation patent to the '045 patent. (Section IV, *supra*.) To overcome an initial rejection based on the combination of Kumar and Capalik 570, applicant argued that the “*across a network*” limitations of the '224 continuation patent, which are identical to limitation [1(c)(i)] of the '045 patent, were not present in *either* Capalik 570 or the Kumar reference. (EX-2019 293-94.) After considering Capalik 570, the Patent Office allowed the '224 continuation patent. (EX-2019 292-294.) The Patent Office's decision to allow the '224 continuation patent after finding Capalik 570 did not disclose these limitations was correct, and Petitioner fails to provide an adequate reason for revisiting the Patent Office's decision based on the same arguments and prior art disclosures.

1. Overview Of Capalik

Capalik is directed to generating a profile, or “fingerprint,” for a computer object after supervising its activities on a virtual machine. (EX-1008 Abstract; Claim 1; EX-2001 ¶ 63.) Capalik teaches a method of monitoring activities on a

virtual machine, whereby activities are identified using their source, target, and the association between the source and target. (EX-1008 [0010].) From this information, a fingerprint indicative of the activity on the virtual machine is created and is transmitted to identify the attack on other affected systems. (EX-1008 [0010]; *see also* Figs. 6A-C (flowchart representing the method of identifying unauthorized activities according to Capalik).)

Capalik describes a decoy network device architecture. This is illustrated in Capalik Figure 2, which shows the host operating system on a decoy network device memory, running virtual machines that are running operating systems that are used to generate fingerprints.

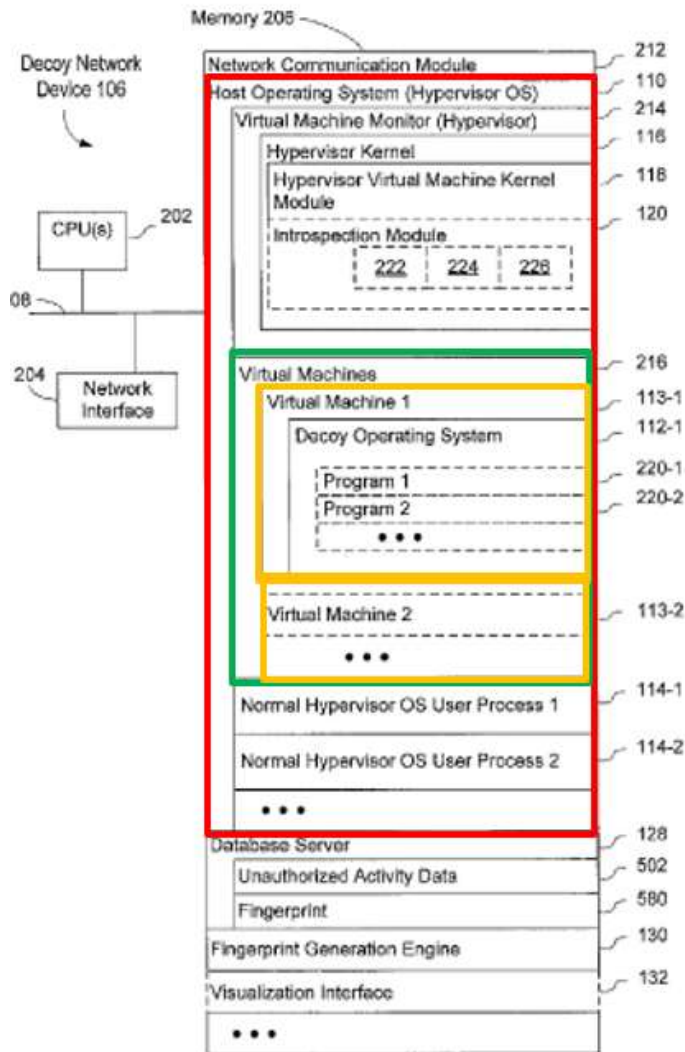


Figure 2

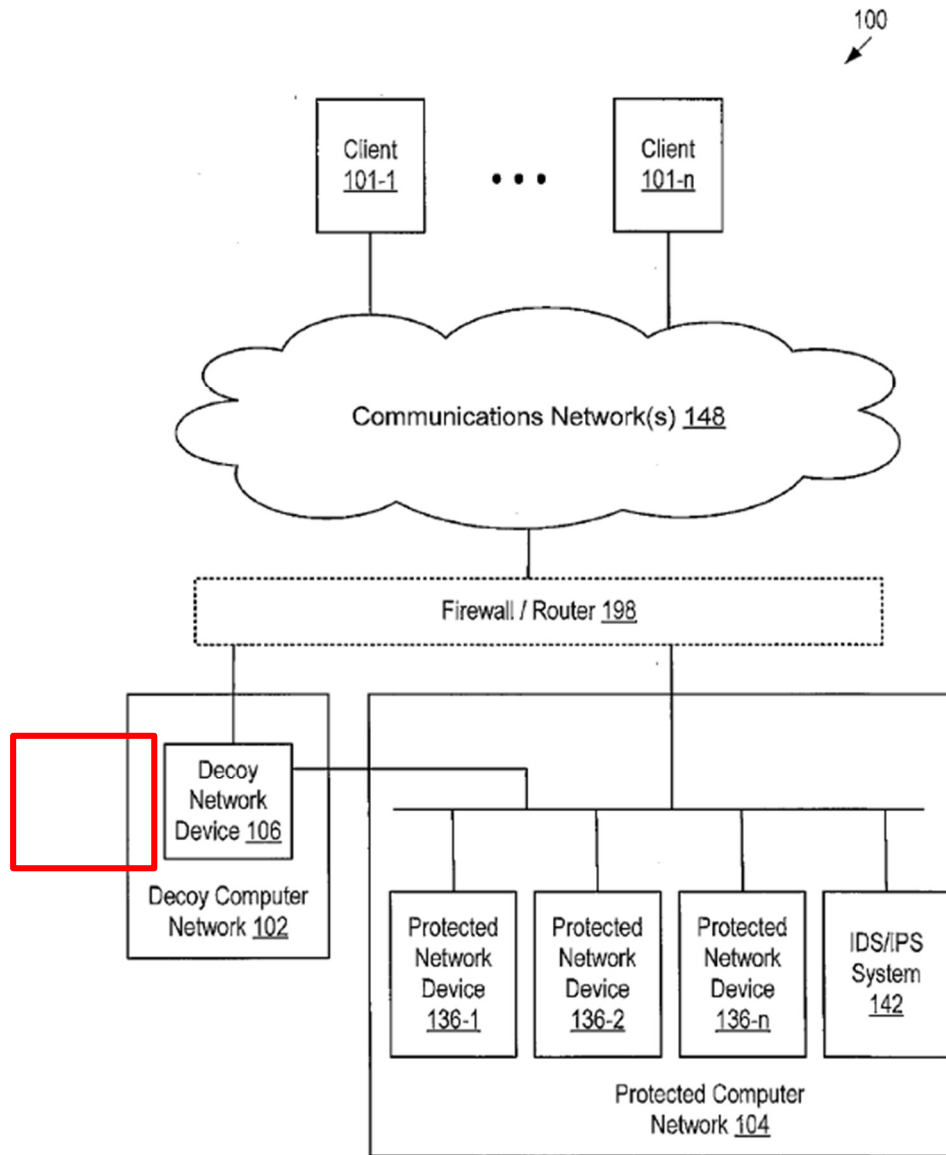
(EX-1008 Fig. 2.) (annotated)

Unlike malware identification and mitigation solutions that generate information from monitoring a computer object's activity on devices *across a network*, Capalik is directed to generating information about a computer object's activities through the use of virtual machines *on a single device* to generate this profile or "fingerprint." (EX-2001 ¶ 65.)

**2. Capalik Does Not Disclose Or Render Obvious The
“Wherein The Global Perspective Relates To One Or More
Other Events Related To The Event Across A Network” Lim-
itations**

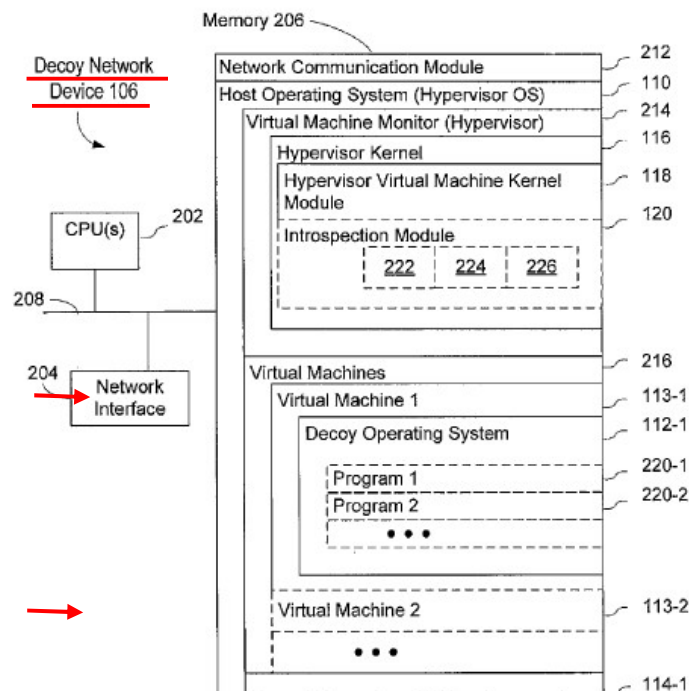
Claims 1, 8 and 16 of the '045 patent include the limitation “*wherein the global perspective for one or more related events to the at least one event across a network.*” Petitioner contends that Capalik can follow a chain of unauthorized activity across multiple virtualized operating systems, and that this behavior discloses this element. (Petition 50.) But in Capalik, all of the virtualized operating systems are *on the same device*, so there is no “one or more other events related to the event *across a network.*” (EX-1008 [0045]-[0046]; EX-2001 ¶71 .)

Capalik discloses a system and method implemented via a decoy network device—i.e., a decoy system that is monitored to collect fingerprint data of unauthorized activities. (EX-1008 [0030], Fig. 1.)



(EX-1008 Fig. 1.) The decoy network device utilizes a virtual machine—i.e., one or more software applications *emulating* one or more physical machines—to establish virtual or decoy operating systems to attract attacker activity. (EX-1008 [0052]-[0053]; EX-2001 ¶64.)

Capalik teaches “[a] computer implemented method [that] includes monitoring activities on the virtual machine. A plurality of activities being performed at the virtual machine is identified.” (EX-1008 Abstract.) Figure 2 of Capalik illustrates that, the virtual machines run decoy operating systems and programs in order to collect information about events occurring on the decoy network device.



(EX-1008 Fig. 2) (excerpted and annotated).

That is, while Capalik teaches that its method is “able to follow a chain of unauthorized activity across multiple virtualized operating systems,” these virtualized operating systems reside on the same single decoy network device. (EX-1008 [0045]-[0046]; EX-2001 ¶71.) Thus, the decoy network device of Capalik on which

the virtual machines run is not capable of performing this limitation because the global perspective cannot “relate[] to one or more other events related to the event *across a network*.” (EX-2001 ¶ 66 (emphasis added).)

Petitioner also argues that “Capalik discloses obtaining global perspective information in a scenario based on related events from multiple data streams across a network, shown in annotated Figure 4E.” (Petition 52.) Petitioner is wrong. Figure 4E illustrates virtual machine 113-1. (EX-1008 [0074].) But again, the events Petitioner cites all occur on one virtual machine (and one decoy network device) and *not across a network*.

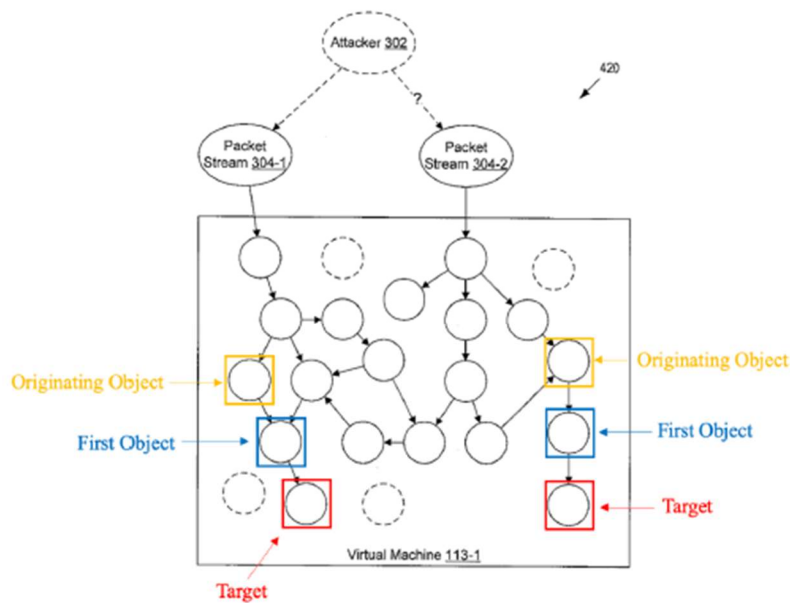


Figure 4E

(Petition 52; EX-1008 Figure 4E.)

Petitioner further argues that “a PHOSITA would have understood that in an attack across multiple virtualized operating systems, Capalik’s methods would follow the related chain of unauthorized activity *across each operating system* and would perform the alleged method identified above for obtaining a global perspective—namely, determining ‘association types’ between sources and targets, including ‘malicious associations.’” (Petition 48 (emphasis added).) But the claim limitation is not met by following unauthorized activity across *operating systems*. (EX-2001 ¶ 71.)

The claim requires relating events across a *network*, and a network is not the same as virtualized operating systems on a single device. (EX-2001 ¶¶ 72-76.) Indeed, the ’224 continuation patent illustrates distinct computing devices 204 on a network. (EX-1001 Fig. 1.) Petitioner does not explain why activity across virtualized *operating systems* on a single device would be understood by PHOSITA as equivalent to activity across a *network*. (EX-2001 ¶¶ 72-76.) Capalik thus does not teach or suggest a “global perspective” that “*relates to one or more other events related to the event across a network.*” (EX-2001 ¶¶ 70-76.)

Notably, Petitioner’s argument regarding Capalik merely parrots a reading of Capalik 570 that the Examiner considered and ultimately rejected. (EX-2001 ¶¶ 77-

78.) During prosecution, the Examiner rejected claim 1 in view of Kumar. (EX-1002 293.) To overcome this rejection, the applicant argued the following:

It is illogical to conclude that such a simplistic mapping of alerts to a specific device is analogous to the claimed “global perspective” that is “based on the contextual state information” and “relates to one or more other events related to the event across a network.” Rather, Kumar is focused on the integrity of a single application running on a single device. **There is simply no teaching of events relating to application integrity for other devices on a network.** Therefore, Kumar cannot possibly teach or suggest a “global perspective” that “relates to one or more other events related across a network.”

(EX-1002 293 (emphasis added).) Petitioner's Capalik-based argument for the limitation “*wherein the global perspective relates to one or more events related to the event across a network*” is the same single-device argument the Examiner considered for Kumar during prosecution, and over which the Examiner allowed the '224 continuation patent. (EX-2001 ¶ 78.)

Petitioner argues that a PHOSITA would have understood Capalik's system is scalable and would have been motivated to implement multiple virtualized operating systems not only within a single device, but also across a plurality of decoy network devices to protect network devices 136-n as contemplated by Capalik. (Petition 51.) However, Petitioner argues that the decoy network devices exchange

information across a network (*id.*), which is wrong. (EX-2001 ¶ 75.) Even if one were to utilize multiple decoy network devices, Petitioner fails to identify any Capalik teaching or embodiment that includes sharing information across decoy computer network devices. (EX-2001 ¶ 75.) To the contrary, Capalik teaches self-contained decoy network devices on which virtualized operating systems are run, and on which computer objects activities are monitored. (EX-1008 Fig. 2; EX-2001 ¶ 75.)

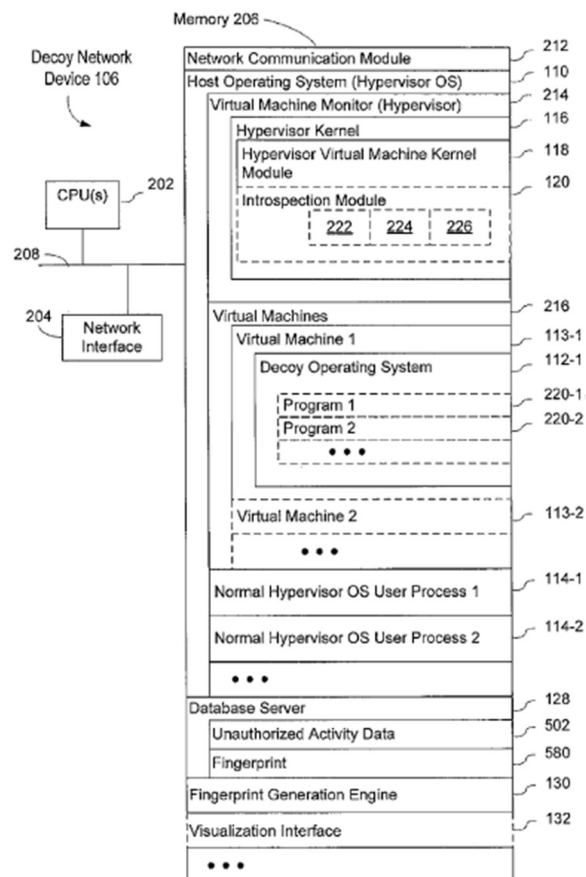


Figure 2

(EX-1008 Fig. 2.) Capalik does not teach transmitting this information between decoy network devices, or the use of this information from multiple decoy network devices to create a fingerprint. (EX-2001 ¶ 75; EX-1008 [0126].) For example, Capalik does not instruct a PHOSITA on how the computer object fingerprint it generates may be used by other devices on a network—only that it can be used. (EX-2001 ¶ 75.; EX-1008 [0126] (“The decoy network device transmits (644) the fingerprint to one or more protected network devices 136 to prevent future attacks that comprise the same or similar activities as indicated by the fingerprint.”).) Capalik does not instruct a PHOSITA how to modify computer systems on a network to use the fingerprint it generates. (EX-2001 ¶ 75.; EX-1008 [0127].) Rather, “[t]he decoy network device creates (636) the fingerprint indicative of the activity on the virtual machine from the stored activities.” (EX-1008 at [0120].)

Furthermore, Petitioner's argument that the “*across a network*” limitation is disclosed or rendered obvious by Capalik is inconsistent with the district court's March 16, 2023 claim construction. (EX2008 9). There, the court construed “*wherein the global perspective for one or more related events to the at least one event across a network*” was construed as “wherein the global perspective [is] for one or more related events to the at least one event across [**other devices on**] a network.” (EX-2008 8 (emphasis added).) The district court's construction confirms

that the *across a network* limitation requires the exchange of information related to **other devices** on a network, and thus cannot be information about related events on the same device. As a result, Petitioner asks the Board to construe the challenged claims in a manner that is inconsistent with the district court's construction (and the '045 patent) for Ground 2.

Accordingly, Petitioner fails to show that Capalik discloses or renders obvious the "*wherein the global perspective relates to one or more events related to the event across a network*" limitation claimed recited in the challenged in the '045 patent claims. Petitioner is therefore unlikely to succeed on Ground 2.

VI. PETITIONER'S GROUNDS FAIL TO ANTICIPATE OR RENDER OBVIOUS ALL DEPENDENT CLAIMS

Because Petitioner has failed to establish that any of its grounds anticipate or render obvious all limitations of independent claims 1, 8, and 16, Petitioner cannot make a showing that such grounds anticipate or render obvious dependent claims 2-4, 7, 9-10, 12, 15, 17, and 18.

VII. SECONDARY OBJECTIVE INDICIA OF NONOBVIOUSNESS

In determining obviousness of the claimed invention, objective evidence of secondary considerations pertaining to nonobviousness must be considered, including long-felt but unsolved needs, failure of others, commercial success, etc. *In re Huang*, 100 F.3d 135, 139 (Fed. Cir. 1996) (citing *Graham*, 383 U.S. at 17-18).

These indicia constitute independent evidence of nonobviousness 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 March 22, 2017) (Paper 15, 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 of non-obviousness). Despite Patent Owner providing evidence regarding the long-felt, unmet need for the invention and commercial success in its district court complaint against Petitioner, Petitioner fails to address or consider any such evidence in its petition; thus, institution should be denied. (EX-2015 ¶¶ 72-82.)

As discussed above, a long-felt and persistent need existed to improve network forensics methods before the invention of the ’045 patent. *See* Section III.A, *supra*; EX-2001 ¶ 82. Prior attempts to develop reliable network security were limited in their ability to establish any sort of context or obtain useful information from within the host or system, making them insufficient to identify and address the threats faced by modern computer networks. *See* Section III.A, *supra*; EX-2001 ¶

82. Where others failed, the inventors of the '045 patent succeeded. *See* Section III.B, *supra*; EX-2001 ¶ 82.

Patent Owner currently accuses at least four industry participants, including Petitioner, of infringing the technology claimed in the '045 patent, demonstrating the critical need and widespread industry reliance on these novel methods. (*See* EX-2003; *See* EX-2016; *See* EX-2017; *See* EX-2018.) Petitioner, in particular, markets and provides the CrowdStrike Falcon Platform, the components of which practice the system and methods claimed in the '045 patent. (*See* EX-2018.)

VIII. CONCLUSION

For the foregoing reasons, the challenged claims of the '045 patent are patentable and the Board should decline to institute IPR.

Date: March 20, 2023

Respectfully submitted,

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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 12,997 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 365 V.2202.

Date: March 20, 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 2001-2023** were served by filing the documents through the Patent Trial and Appeal Case Tracking System (P-TACTS) as well sent via Federal Express on March 20, 2023 and courtesy copies were also served via electronic mail, in their entireties on the following:

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