

UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE PATENT TRIAL AND APPEAL BOARD

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NetApp, Inc.,  
Petitioner,

v.

KOM Software, Inc.,  
Patent Owner.

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Case IPR2019-00598  
Patent 7,076,624

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**PATENT OWNER'S NOTICE OF APPEAL**

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U.S. Patent and Trademark Office  
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US PATENT AND  
TRADEMARK OFFICE

Pursuant to 35 U.S.C. §§ 141 and 142 and 37 C.F.R. § 90.2(a), Patent Owner KOM Software, Inc. (“Patent Owner”) hereby provides notice that it appeals to the United States Court of Appeals for the Federal Circuit from the Final Written Decision of the Patent Trial and Appeal Board (“Board”) entered September 2, 2020 (Paper 35), and from all underlying findings, orders, decisions, rulings, and opinions regarding U.S. Patent No. 7,076,624 (“the ’624 patent”) in *Inter Partes* Review IPR2019-00598.

In accordance with 37 C.F.R. § 90.2(a)(3)(ii), Patent Owner states that the issues for appeal include, but are not limited to: the Board’s determination that claims 1–11 and 22–31 of the ’624 patent have been shown by a preponderance of the evidence to be unpatentable and any other finding, evidence, or determination supporting or related to that determination, as well as all other issues decided adversely to Petitioner in any orders, decisions, rulings, or opinions.

A copy of the decision being appealed is attached to this Notice.

Pursuant to 35 U.S.C. § 142 and 37 C.F.R. § 90.2(a), this Notice is being filed with the Director of the United States Patent and Trademark Office. Simultaneous with this submission, a copy of this Notice is being filed with the Patent Trial and Appeal Board. In addition, a copy of this Notice, along with the required docketing fee, is being filed with the Clerk’s office of the United States Court of Appeals for the Federal Circuit via CM/ECF.

Date: November 4, 2020

Respectfully Submitted,  
/s/ Wenye Tan

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## **CERTIFICATE OF FILING AND SERVICE**

The undersigned certifies that, in addition to being filed electronically through the Patent Trial and Appeal Board's E2E, the foregoing Notice of Appeal was filed and served by hand delivery on November 4, 2020, with the Director of the United States Patent and Trademark Office, at the following address:

Director of the United States Patent and Trademark Office  
c/o Office of the General Counsel  
Madison Building East, Room 10B20  
600 Dulany Street  
Alexandria, VA 22314

The undersigned certifies that a copy of the foregoing Notice of Appeal, along with the required docket fee, was filed on November 4, 2020, with the Clerk's Office for the United States Court of Appeals for the Federal Circuit through the Court's CM/ECF filing system.

The undersigned certifies service pursuant to 37 C.F.R. § 42.6(e) of a copy of this Notice of Appeal by electronic mail on November 4, 2020, on the counsel of record for Petitioners at the following addresses:

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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NETAPP, INC.,  
Petitioner,

v.

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IPR2019-00598  
Patent 7,076,624 B2

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Before KIMBERLY McGRAW, DANIEL J. GALLIGAN, and  
BRENT M. DOUGAL, *Administrative Patent Judges*.

DOUGAL, *Administrative Patent Judge*.

JUDGMENT  
Final Written Decision  
Determining All Challenged Claims Unpatentable  
35 U.S.C. § 318(a)

OFFICE OF THE GENERAL COUNSEL  
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US PATENT AND  
TRADEMARK OFFICE

## I. INTRODUCTION

### A. Background

NetApp, Inc. (“Petitioner”)<sup>1</sup> filed a Petition to institute an *inter partes* review of claims 1–11 and 22–31 (the “challenged claims”) of U.S. Patent No. 7,076,624 B2 (“the ’624 patent”). Paper 3 (“Pet.”). KOM Software, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 9 (“Prelim. Resp.”). Applying the standard set forth in 35 U.S.C. § 314(a), we instituted an *inter partes* review of all challenged claims. Paper 10 (“Dec.”).

Patent Owner filed a Response (Paper 13, “PO Resp.”), Petitioner filed a Reply (Paper 15, “Reply”), and Patent Owner filed a Sur-Reply (Paper 24, “Sur-Reply”). An oral hearing was held on May 27, 2020, and a copy of the transcript was entered into the record. Paper 34 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This Decision is a Final Written Decision under 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73 as to the patentability of the claims on which we instituted trial. Having reviewed the arguments of the parties and the supporting evidence, we determine that Petitioner has shown, by a preponderance of the evidence, that all of the challenged claims of the ’624 patent are unpatentable.

### B. Related Matters

Petitioner identifies the following pending litigation involving the ’624 patent: (1) *KOM Software Inc. v. Hitachi Vantara Corp.*, Case No. 1-18-cv-00158 (D. Del.); (2) *KOM Software Inc. v. Hewlett Packard Enterprise Co.*, Case No. 1-18-cv-00159 (D. Del.); and (3) *KOM Software Inc. v. NetApp, Inc.*, Case No. 1-18-cv-00160 (D. Del.), Pet. 72–73.

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<sup>1</sup> Hewlett Packard Enterprise Co. settled with Patent Owner and is no longer a part of this proceeding. See Paper 23.

Petitioner also filed another petition for *inter partes* review of the '624 patent, which was denied. IPR2019-00600, Paper 10 (PTAB Sept. 5, 2019). Additionally, Petitioner indicates that it filed numerous other *inter partes* review proceedings relating to patents owned by Patent Owner. *See* Pet. 73.

*C. The '624 Patent*

The '624 patent (Ex. 1001), titled “Method and system for providing restricted access to a storage medium,” relates generally to a method of providing restricted write access on a data storage medium. Ex. 1001, 1:14–15. The '624 patent discloses that access privileges provided by previous operating systems “fail to adequately provide protection for archival storage devices such as magnetic tape or removable optical media.” *Id.* at 1:31–33. For example, “[w]hen an archive data store is used with a data store device, it is often desirable that it not be written to.” *Id.* at 2:15–16. However, when a data store device is accessed, file systems of previous operating systems may perform updating of file access information even when it is not desired. *Id.* at 2:19–22. To solve this problem, the '624 patent discloses an operating system that includes a “trap layer” or “filter layer” disposed between the application layer and the file system layer. *Id.* at 7:38–40. Figure 3 of the '624 patent is reproduced below.



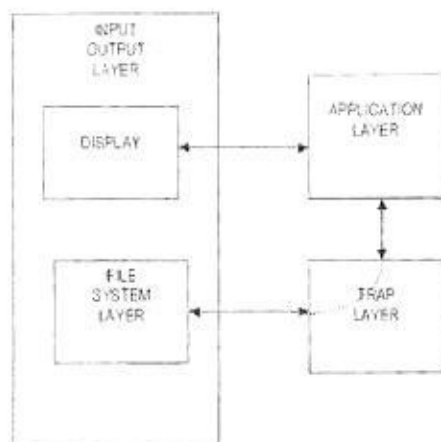


FIG. 3

Figure 3 illustrates a block diagram of an operating system that includes a trap layer. *Id.* at 7:30–43. Each file system access request that is transmitted from the application layer to the file system layer is intercepted by the trap layer, where restrictions relating to access privileges are implemented. *Id.* at 7:40–43. Some access requests are blocked and error messages are returned to the application layer. *Id.* at 7:44–45. Some access requests may be modified and passed on to the file system in modified form. *Id.* at 7:45–47.

#### D. Illustrative Claims

Of the challenged claims, claims 1 and 22 are independent. Each of dependent claims 2–11 and 23–31 depends directly or indirectly from respective independent claims 1 and 22. Claim 1 illustrates the claimed subject matter and is reproduced below:

1. A method of applying an operation access privilege to at least a logical portion of a logical storage medium in communication with a computer, the method comprising the steps of:
  - (a) providing an operation access privilege indicative of at least one of an enabled operation and/or a restricted operation to

be performed on at least one logical portion of a logical storage medium;

(b) associating said operation access privilege with at least one logical portion of said logical storage medium;

(c) intercepting in a trap layer an attempted operation on said at least one logical portion identified by at least one data identifier, wherein said intercepting occurs regardless of an identity of a user attempting said attempted operation, and transparently to the user and transparently to a computer application invoking said operation; and

(d) at least one of allowing said attempted operation if matching said enabled operation, modifying and allowing said modified attempted operation, and/or denying said attempted operation if matching said restricted operation.

Ex. 1001, 10:20–43.

*E. Instituted Grounds and Prior Art*

Petitioner contends that the challenged claims would have been unpatentable on the following grounds:<sup>2</sup>

<b>Claims Challenged</b>	<b>35 U.S.C. §<sup>3</sup></b>	<b>References/Basis</b>
1–11, 22–31	102, 103	Nagar <sup>4</sup>
1–11, 22–31	102, 103	Vossen <sup>5</sup>
10, 31	103	Vossen, Willman <sup>6</sup>
10, 31	103	Vossen, Nagar

<sup>2</sup> Petitioner supports its challenge with a Declaration of Jon B. Weissman, Ph.D. (“Weissman Declaration”) (Ex. 1002).

<sup>3</sup> The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. §§ 102 and 103. Because the challenged claims of the ’624 patent have an effective filing date before the effective date of the applicable AIA amendments, we refer to the pre-AIA versions of §§ 102 and 103.

<sup>4</sup> Ex. 1005, Nagar, Windows NT File System Internals, A Developer’s Guide, 1997.

<sup>5</sup> Ex. 1007, Vossen, U.S. 6,026,402, issued Feb. 15, 2000.

<sup>6</sup> Ex. 1006, Willman, U.S. 5,363,487, issued Nov. 8, 1994.

1. Nagar

Nagar is non-patent literature (a book) intended as a tutorial or reference for computer software engineers regarding internal structures of the Windows NT operating system. Ex. 1005, 12.<sup>7</sup> Nagar discloses filter drivers as an aspect of the Windows NT architecture. *Id.* at 51. A filter driver in Nagar intercepts requests from a first layer of a device interfacing before the request reaches its intended target layer interfacing to an I/O device and may “extend, or simply replace, the functionality provided by the original recipient of the request.” *Id.* Nagar’s Figure 2-6 is reproduced below.<sup>8</sup>

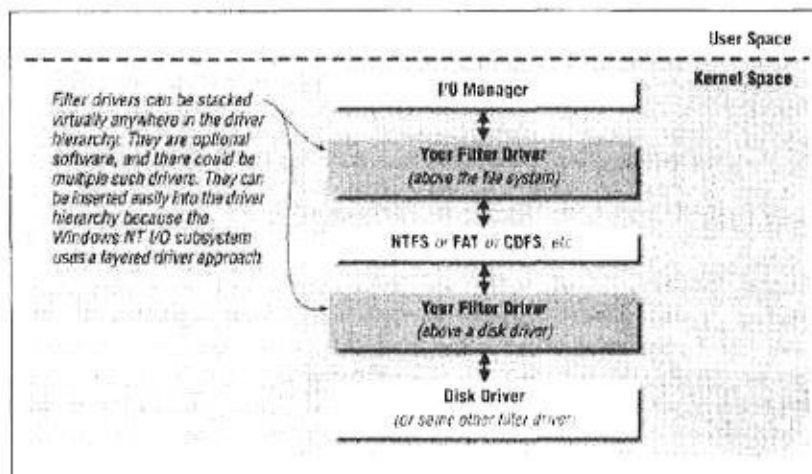


Figure 2-6. Filter drivers in the driver hierarchy

Figure 2-6 illustrates two locations in Windows NT operating system (“kernel”) architecture at which a filter driver may be inserted to intercept requests—e.g., between the Windows NT I/O Manager layer and the file system (“NTFS or FAT or CDFS, etc.”) or between the file system and the

<sup>7</sup> Exhibit 1005 includes original page and sequential exhibit page numbers added by Petitioner. This Decision refers to the sequential exhibit page numbers.

<sup>8</sup> We note that Nagar’s Figure 2-6 as reproduced in Exhibit 1005 (Ex. 1005, 53) is of poor quality. Thus, we reproduce the version of Figure 2-6 inserted in the Petition. *See* Pet. 15.

disk driver. *Id.* at 52–53. Nagar discloses one exemplary filter driver may provide virus scanning capabilities for data to be written to the disk drive. *Id.* at 498–99.

Figure 12-2 of Nagar is reproduced below.

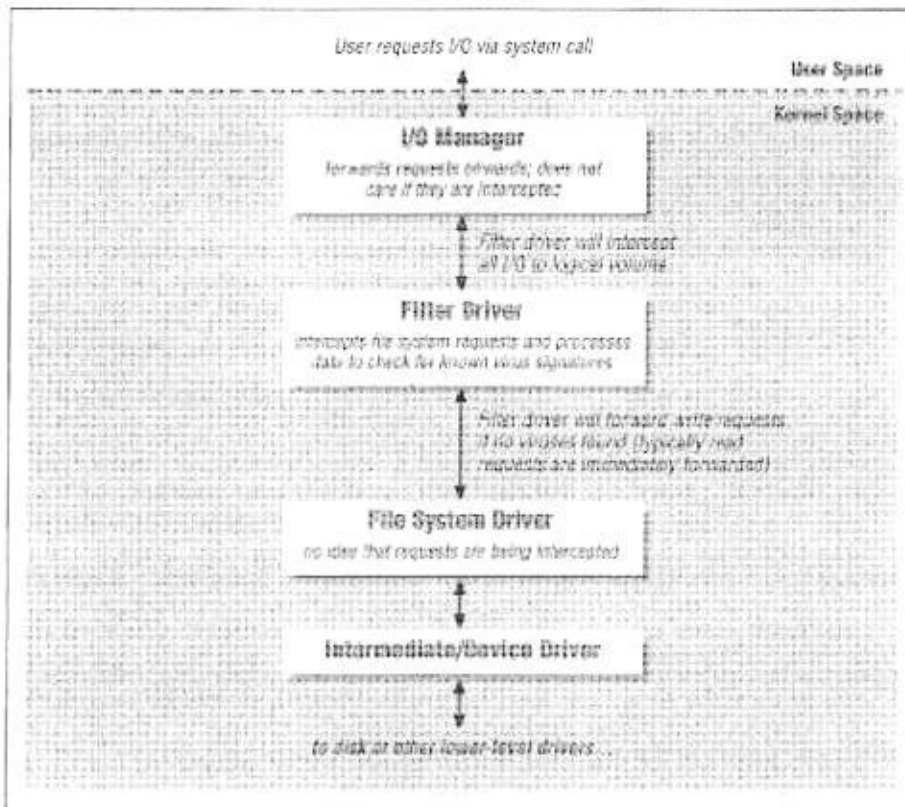


Figure 12-2. Filter driver used in virus detection

Figure 12-2 illustrates a filter driver inserted as a layer between the I/O Manager layer and the File System Driver, wherein the filter driver intercepts file system requests and processes data to check for known virus signatures. *Id.*

## 2. Vossen

Vossen is titled "Process restriction within file system hierarchies" and describes "a method and apparatus for restricting a process or process hierarchy to a subset of a computer host's file system(s) in an environment

where all file systems are simultaneously available to an application.”

Ex. 1005, Abstract. Vossen teaches “modify[ing] the usual operation of the host computer’s operating system interface such that any file system access attempts by the affected process are constrained to occur logically within the restriction domain.” *Id.* at 2:27–30. Vossen teaches that Windows NT supports external devices via loadable device drivers and that the operating system kernel delivers one of a large set of requests to the driver in a I/O Request Packet (or IRP) when a process requests some service of the device. *Id.* at 4:24–30.

Vossen further teaches that it is possible to add layers above file system drivers called intermediate drivers. *Id.* at 4:57–58. An intermediate driver is “known as a file system filter driver since its usual task is to filter the requests delivered to the underlying file system driver.” *Id.* at 4:58–61. “A filter driver will typically examine the IRP provided by the kernel and make modifications (according to the function of the specific driver) before passing it along to the actual file system driver.” *Id.* at 4:61–64. Vossen further discloses that one example of such a filter driver is a process restriction filter driver, such as that shown below in Vossen’s Figure 6. *Id.* at 4:64–67.

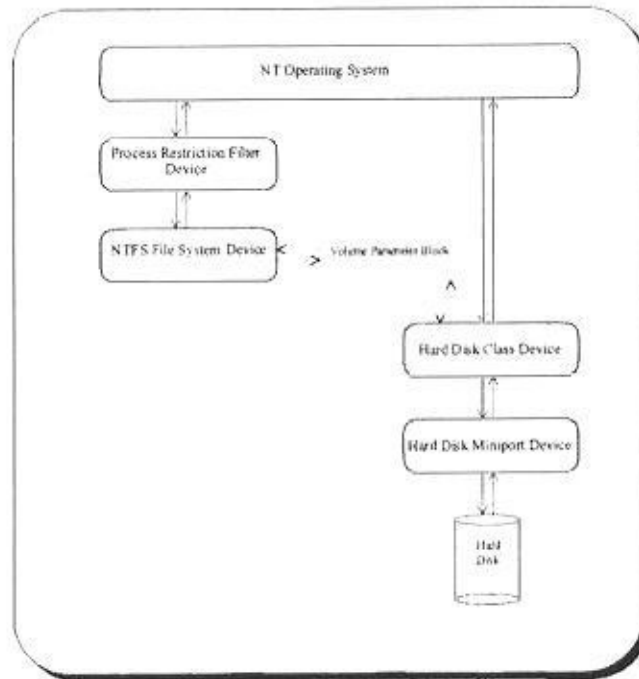


Figure 6

Figure 6 of Vossen, above, depicts an NT system configuration including a process restriction filter driver. *Id.* at 2:59–60. “[T]he process restriction filter operates by examining all IRPs containing path names sent to each file system it restricts.” *Id.* at 9:65–67. “For each IRP received, the filter driver determines if the process that initiated the I/O request should be subject to file system restrictions.” *Id.* at 10:6–8. The process restriction filter modifies restricted IRPs before passing them to the driver that resides below it. *Id.* at 11:1–3.

## II. ANALYSIS

### A. Legal Standards

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. Inc. v. Union Oil Co.*, 814 F.2d 628, 631

(Fed. Cir. 1987). Moreover, “[b]ecause the hallmark of anticipation is prior invention, the prior art reference—in order to anticipate under 35 U.S.C. § 102—must not only disclose all elements of the claim within the four corners of the document, but must also disclose those elements ‘arranged as in the claim.’” *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008). Whether a reference anticipates is assessed from the perspective of an ordinarily skilled artisan. *See Dayco Prods., Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 1368 (Fed. Cir. 2003) (“[T]he dispositive question regarding anticipation [i]s whether one skilled in the art would reasonably understand or infer from the [prior art reference’s] teaching’ that every claim element was disclosed in that single reference.”).

In *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), the Supreme Court set out a framework for assessing obviousness under 35 U.S.C. § 103 that requires consideration of four factors: (1) the “level of ordinary skill in the pertinent art,” (2) the “scope and content of the prior art,” (3) the “differences between the prior art and the claims at issue,” and (4) “secondary considerations” of non-obviousness such as “commercial success, long-felt but unsolved needs, failure of others, etc.” *Id.* at 17–18. Neither party has presented evidence or argument directed to secondary considerations. The other *Graham* factors are addressed below.

#### *B. Level of Ordinary Skill*

Petitioner contends a person of ordinary skill in the art (a “POSA”) “would have held either a bachelor’s degree in computer engineering or computer science with two years of experience in the field of data storage management or a master’s degree in either discipline with an emphasis on data storage management.” Pet. 6 (citing Ex. 1002 ¶¶ 33–35). Patent Owner provides a similar definition, stating a POSA “should have a bachelor’s



degree in electrical engineering, computer science, or equivalent with two years or more of experience in computing systems development; a master's degree in electrical engineering, computer science, or equivalent; or comparable computing systems work experience." PO Resp. 11–12 (citing Declaration of Dr. Jose Luis Melendez ¶ 34, (Ex. 2001)); *see* Ex. 2001 ¶ 34 (Dr. Melendez testifying that a POSA may also have a degree in electronics engineering or applied mathematics).

Thus, the parties dispute whether a POSA must have a degree in computer science/engineering or whether a POSA could instead have a degree in electrical engineering as well as whether the POSA's experience must be in data storage management or could encompass experience in the field of computing systems development.

Although the parties articulate different levels of skill for a POSA, neither party explains how its recited level of skill impacts the obviousness analysis such that application of one proposal versus the other would lead to different ultimate outcomes.

Based on the record before us, including the types of problems and solutions described in the '624 patent and the cited prior art, we determine that a person of ordinary skill in the art would have had a bachelor's degree in a technical field such as computer engineering, computer science, electrical engineering, electronics engineering, applied mathematics, or their equivalent, with two years of experience in the field of computing systems development, including fields of data storage management or file storage and manipulation; a master's degree in such a technical field; or comparable computing systems work experience. We further note that our analysis would be the same under either party's definition.



*C. Claim Construction*

In an *inter partes* review, a claim “shall be construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b).” 37 C.F.R. § 42.100(b) (2019). Under this standard, claim terms are given their ordinary and customary meaning as would have been understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). If the specification “reveal[s] a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess[,] . . . the inventor’s lexicography governs.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc) (citing *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002)).

*1. Associating*

Although both parties assert that none of the claims needs to be construed expressly (Pet. 6; PO Resp. 12), the parties dispute the meaning of the phrase “associating said operation access privilege with at least one logical portion of said logical storage medium,” as recited in claims 1 and 22. Patent Owner argues that a POSA “understands that ‘associating said operation access privilege with at least one logical portion of said logical storage medium’ means to combine or join the operation access privileges within at least one logical portion of said logical storage medium.” PO Resp. 21 (citing Ex. 2001 ¶ 48); *see also id.* at 25 (stating “the inventive steps taught within the ’624 Patent” require that “the storage medium itself maintains its associated operation access privileges independent of the computer” (citing Ex. 1001, 9:42–64, Fig. 6; Ex. 2001 ¶ 54)); Sur-Reply 6–11. During oral argument, Patent Owner clarified that

the claimed “associating” language requires that the access privilege be “stored in the storage medium.” Tr. 59:12–60:10; *see also id.* at 60:19–20 (stating that “[i]t has to be stored in whatever storage medium is being mounted”). Petitioner argues that construing the “associating” phrase as Patent Owner proposes would improperly import an unclaimed embodiment from the specification into the claims. Reply 14–16. For the reasons explained below, we agree with Petitioner.

We begin our analysis with the claim language. *In re Power Integrations, Inc.*, 884 F.3d 1370, 1376 (Fed. Cir. 2018) (“Claim construction must begin with the words of the claims themselves.” (brackets, and citation omitted)). The disputed phrase recites “associating said operation access privilege with at least one logical portion of said logical storage medium.” The independent claims do not recite “combine,” “join,” or “store” as proposed by Patent Owner. Neither “combine” nor “join” appear anywhere in the ’624 patent. Nor does the ’624 patent state that the access privilege *must* be stored in the storage medium. *See, e.g.*, Ex. 1001, 9:42–64, Fig. 6 (describing a preferred embodiment). It makes some sense to consider data stored in a storage medium to be associated with that storage medium simply by virtue of being stored there. But the converse—that associating with a storage medium requires storing in the storage medium—does not follow from a plain and ordinary reading of the claim language. The record does not contain persuasive evidence or argument showing that the plain and ordinary meaning of “associating” means “storing.”

Therefore, we turn to the Specification, which “is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Phillips*, 415 F.3d at 1315 (internal quotation and citation omitted). Patent Owner’s argument

rests largely on the disclosure of the '624 patent pertaining to Figure 6, which is reproduced below. *See, e.g.*, PO Resp. 20–23, 25; Sur-Reply 6.

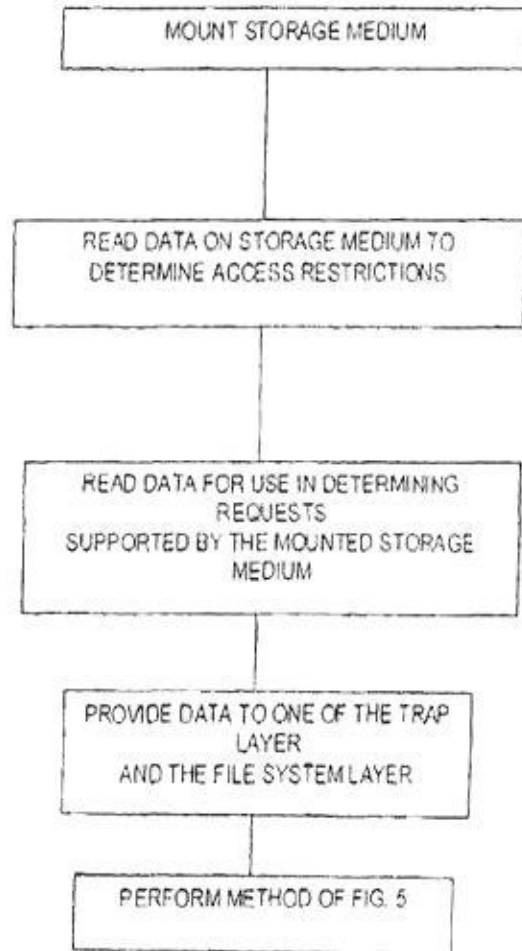


FIG. 6

Figure 6 of the '624 patent, reproduced above, is “a simplified flow diagram of a method of providing software settable access privileges within Windows NT®.” Ex. 1001, 4:23–25. Referring to Figure 6, the '624 patent explains the following:

A storage medium is mounted within a computer system. The storage medium has stored thereon data relating to access privileges for the storage medium. Upon mounting the storage medium, data relating to physical limitations of the read/write

device are loaded into the device driver for that device within the file system layer. The limitations are recognised by the system software. Also upon mounting the storage medium, the data relating to access privileges for the storage medium are loaded into the trap layer.

*Id.* at 9:44–52.

Citing the '624 patent's disclosure pertaining to Figure 6, Patent Owner argues that "the '624 Patent teaches that the operation access privileges are associated with the mounted storage medium and not with the computer's programs and executing processes." PO Resp. 22 (citing Ex. 1001, Fig. 6; Ex. 2001 ¶ 49). Patent Owner asserts that "the storage medium itself maintains its associated operation access privileges independent of the computer." *Id.* at 25 (citing Ex. 1001, 9:42–64, Fig. 6; Ex. 2001 ¶ 54).

Although the method of Figure 6 clearly involves reading access privilege data that are stored on the storage medium (Ex. 1001, 9:44–52), claims 1 and 22 do not recite "reading access privilege data from the storage medium" any more than they recite "storing access privilege data on the storage medium." Patent Owner's proposed construction in effect would rewrite the claim to require reading the privileges from the storage medium. Patent Owner stated as much during oral argument: "[I]t's our position that the associating step is when you perform the method and the only method of getting these operation access privileges off of the storage medium, such that, you know, that the invention can actually be accomplished is through this methodology." Tr. 57:2–8.

In the particular embodiment of Figure 6, it can be assumed that the access privileges are associated with the storage medium by being stored there, but the '624 patent's description of Figure 6 does not show that

associating privileges with a storage medium can only be accomplished by storing the privileges on the storage medium. The claims recite “associating,” and the Specification of the ’624 patent does not equate “associating” and “storing.”

In addition to Figure 6 from the ’624 patent, Patent Owner cites the Abstract, Figure 5, and portions of column 3 in its discussion of the “associating” limitation, but Patent Owner provides no substantive discussion of these passages to show how they support a construction of “associating” to mean “storing.” *See* PO Resp. 21. The Abstract of the ’624 patent discloses “restricting file access . . . wherein a set of file write access commands are determined from data stored within a storage medium.” Ex. 1001, Abstract. The Abstract, however, does not mention “associating” or “access privilege,” and Patent Owner provides no persuasive explanation how this disclosure in the Abstract limits the claimed “associating” to “storing.” Figure 5 of the ’624 patent is “a flow diagram of a method of storing data in a storage medium” and describes that “[t]he trap layer intercepts [a] request [to store data] and the data[,] and determines whether the storage medium selected supports the operation.” *Id.* at 9:19–21, 9:27–29. The description of Figure 5 does not mention “associating,” let alone limit associating to “storing.” Thus, we do not view Figure 5 as any more supportive of Patent Owner’s position than Figure 6. The passages from column 3 of the ’624 patent are directed to methods involving “providing an indication of a data write access privilege for the entire logical storage medium,” but the passages do not mention “associating,” nor do they say that the access privilege is stored on the storage medium. *Id.* at, 3:18–26, 3:43–55. Thus, we do not view these disclosures from the ’624 patent as

supporting Patent Owner’s attempt to limit the claimed “associating” to “storing.”

For these reasons, we do not agree with Patent Owner’s proposed interpretation of “associating said operation access privilege with at least one logical portion of said logical storage medium.” No further construction of this phrase or any other claim term is necessary. *See, e.g., Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (“[W]e need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’ . . . .” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

*D. Claims 1–11 and 22–31 — Anticipation by and Obviousness by Nagar*

Petitioner asserts that Nagar anticipates and renders obvious claims 1–11 and 22–31. Pet. 14–36, 55–61. Patent Owner opposes. *See* PO Resp. 25–33. For the reasons set forth below, we determine Petitioner has shown that Nagar discloses or suggests the limitations of claims 1–11 and 22–31. Pet. 14–36, 55–61; Ex. 1002 (Declaration of Dr. Weissman) ¶¶ 52–83, 117–128.

*1. Independent Claims 1 and 22*

Petitioner asserts that Nagar discloses every limitation of independent claims 1 and 22. Pet. 14–23, 34–36. Petitioner correctly notes that claims 1 and 22 only differ in their preamble.<sup>9</sup> *Id.* at 35. Thus, though we only

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<sup>9</sup> We do not reach the issue of whether the preambles of claims 1 and 22 are limiting as we are persuaded by Petitioner’s arguments that the recitations in the preambles are satisfied by the prior art. *See* Pet. 14–16 (stating, *inter alia*, use of Nagar’s filter driver to intercept requests targeting a logical volume discloses the preamble of claim 1); *see also id.* at 34–35 (stating



address claim 1 below for clarity, the analysis for all of the limitations is the same for claim 22. For its contention that Nagar anticipates or renders obvious claim 1, Petitioner relies on Nagar's disclosure of a filter driver providing virus detection functionality which intercepts requests to a logical portion of a logical volume. *See generally* Pet. 14–23, 34–36.

*a) Operation Access Privilege*

Claim 1 is directed to “[a] method of applying an operation access privilege to at least a logical portion of a logical storage medium in communication with a computer,” and recites:

(a) providing an operation access privilege indicative of at least one of an enabled operation and/or a restricted operation to be performed on at least one logical portion of a logical storage medium.

...

(c) intercepting in a trap layer an attempted operation on said at least one logical portion identified by at least one data identifier, wherein said intercepting occurs regardless of an identity of a user attempting said attempted operation, and transparently to the user and transparently to a computer application invoking said operation; and

(d) at least one of allowing said attempted operation if matching said enabled operation, modifying and allowing said modified attempted operation, and/or denying said attempted operation if matching said restricted operation.

Petitioner asserts that Nagar teaches the “(a) providing” claim element because the “filter driver forwards all read requests, as well as write requests not containing viral signatures, . . . to a logical storage medium.” Pet. 16.

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Nagar's filter driver software, which can “sit[] above the file system” discloses the preamble of claim 22).

Petitioner provides the following annotated version of Nagar's Figure 12-2 (*id.* at 17.):

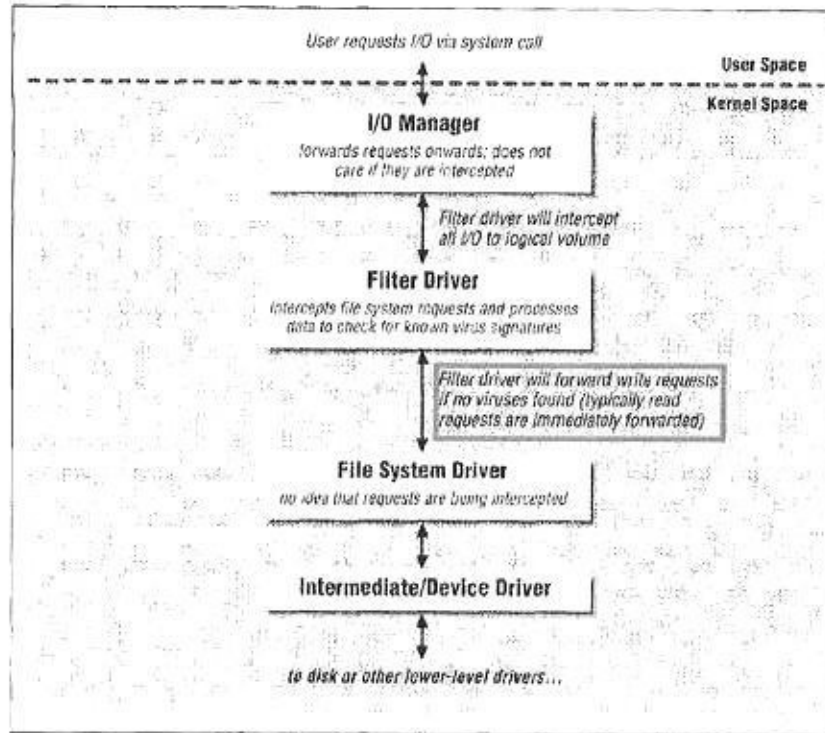


Figure 12-2. Filter driver used in virus detection

The above annotated version of Figure 12-2 illustrates how a filter driver that layers itself above a mounted logical volume device object managed by a file system driver can perform the virus detection functionality.” Ex. 1005, 498. Petitioner includes a red box around the text “Filter driver will forward write requests if no viruses found (typically read request are immediately forwarded).” Pet. 17. Petitioner argues that the forwarded requests represent the claimed “enabled operation” and the denied write requests with a virus represent the claimed “restricted operation.” *Id.* at 17. Petitioner further argues that forwarding read or write requests is the same as “allowing said attempted operation if matching said enabled operation,” as further required by element (d) of claim 1. *Id.* at 23 (citing Ex. 1002 ¶ 63).



Concerning claim element (c), Petitioner argues that the filter driver is a trap layer that intercepts all requests, such as read and write, targeted to the mounted logical volumes. *Id.* at 19–20 (citing, *e.g.*, Ex. 1005, 498–499, Fig. 12-2). Petitioner asserts that Nagar uses a pointer to identify a logical volume (*id.* at 21 (citing, *e.g.*, Ex. 1005, 499, 502, 506), which a POSA would understand to be the data identifier required by claim 1 (*id.* (citing Ex. 1002, ¶ 60)). Further, Petitioner cites Nagar as teaching that “[t]he filter driver . . . intercepts I/O requests in a way that ‘maintain[s] *complete transparency to the user*’” while also intercepting all requests. *Id.* at 22 (quoting Ex. 1005, 497). Thus, Petitioner asserts that the actions of the filter driver are both transparent to the user and occur independent of the user. *Id.* Petitioner also argues that the filter driver operates transparently to the computer application sending the request. *Id.* (citing Ex. 1005, 498–499; Ex. 1002 ¶ 62).

(1) *Analysis*

Patent Owner argues that Nagar does not teach an “operation access privilege” as required by the claims. PO Resp. 25–29. Patent Owner argues that this is because Nagar’s access privileges are based on the content of data (content-based access privileges) to be written to the storage medium, such as whether the data contain viruses, and not based on the attempted operation (operation-based access privileges). *Id.* at 26–27. According to Patent Owner, “[a]n ‘operation access privilege’ as recited in the ‘624 Patent means that the ‘access privilege’ is of the ‘operation’ and not a privilege of executing processes associated with application programs running within a computer or the determination of the purity of data [i.e. content] to be written as in Nagar.” *Id.* at 26 (citing Ex. 1004, 43; Ex. 1005, 498–499; Ex. 2001 ¶ 56).

We disagree with Patent Owner’s attempted distinction over Nagar. Claim 5 of the ’624 patent defines the “operation access privileges” as follows: “wherein said operations comprise at least one of reading, executing, appending, creating new objects, deleting, renaming, moving, overwriting, modifying attributes, and/or modifying data object security.” Ex. 1001, 10:54–58. Petitioner is correct in asserting that Nagar discloses “differentiat[ing] between types of access operations acting on logical volumes (e.g., read and write requests).” Pet. 19. Nagar discloses that

the filter driver module intercepts the I/O before it reaches the file system. Now, the virus-detection module can check for any virus signatures in the data being written out to disk. Note that in most cases, read requests can be immediately forwarded by the filter driver to the file system.

Ex. 1005, 499. Thus, Nagar expressly discloses two operation access privileges identified in the ’624 patent—read and write. *See* Ex. 1005, 498–499.

In the case of a read, Nagar discloses allowing (forwarding) the operation because it is a read request. Ex. 1005, 499. Thus, Nagar discloses comparing the attempted operation to the access privilege and allowing read requests based on the fact that they are read requests, satisfying even Patent Owner’s asserted requirement that the access privilege must be dependent “solely upon the operation itself” (operation-based as opposed to content-based). *See* PO Resp. 26–27. Claim 1 recites “at least one of allowing said attempted operation if matching said enabled operation allowing . . . , modifying . . . or denying said attempted operation,” and, Nagar’s disclosure for the read operation alone is sufficient to meet this step. We further find that Nagar’s disclosure of determining whether a request is a read request or a write request and forwarding read requests describe “at

least one of allowing said attempted operation if matching said enabled operation.”

Furthermore, we do not agree that claim 1’s operation must be based *solely* on the attempted operation and cannot also take other things into account, such as content of data, as Patent Owner asserts. *See* PO Resp. 26. (citing, *inter alia*, Ex. 1004 (Prosecution History), 43) (“[T]he access privilege of Nagar is dependent upon attributes of the analysis of the data by a virus detection algorithm, not solely upon the operation itself.”). In the cited prosecution history, the applicant stated that a prior art reference (U.S. Patent No. 5,163,147 (Orita)) “failed to show that the allowing or denying of an operation occurred regardless of the identity of the user, while the trap layer of the present invention allowed or denied an operation based solely on the operation, and regardless of the user.” Ex. 1004, 43. The applicant’s arguments were directed to the language of claim 1 reciting that intercepting an attempted operation “occurs regardless of an identity of a user.” *Id.* at 34, 36, 39.

Nagar discloses that its “[f]ilter driver will intercept all I/O to logical volume.” Ex. 1009, 498 (Fig. 12-2), *reproduced at* Pet. 22. Because Nagar discloses intercepting all operations, it describes intercepting an attempted operation “regardless of an identity of a user,” as recited in claim 1.

Contrary to Patent Owner’s argument based on the prosecution history of the ’624 patent, claim 1 does not prohibit other considerations in determining whether to allow or deny an attempted operation. Rather, claim 1 requires “at least one of allowing said attempted operation if matching said enabled operation, modifying and allowing said modified attempted operation, and/or denying said attempted operation if matching said restricted operation.” Nagar discloses rejecting a write request if a virus

is detected and forwarding (allowing) the write request if no virus is detected. Ex. 1009, 499, *cited in* Pet. 23. We find, therefore, that Nagar describes allowing or denying the write request based on comparing the attempted operation to the access privilege, even if Nagar bases the decision on other factors as well, such as the presence of a virus.

Based on the foregoing discussion and Petitioner's persuasive contentions, we find Nagar describes the preamble and steps (a), (c), and (d) of claim 1.

*b) Associating the Operation Access Privilege*

Claim 1 also requires "(b) associating said operation access privilege with at least one logical portion of said logical storage medium." Petitioner asserts that this limitation is taught by Nagar because the "filter driver can function as a virus-detecting software module" that "sits above the file system and intercepts operations targeted to a file or 'mounted logic volume[.]'" Pet. 18 (citing Ex. 1005, 498–499, 506; Ex. 1002 ¶ 56).

Patent Owner argues that "associating an access privilege with at least a portion of the storage medium," as required by claim 1, means that "the storage medium itself maintains its associated operation access privileges— independent of the computer." PO Resp. 30–31. As discussed above in § II.C.1, we do not agree that the claimed "associating" requires that the storage medium store the access privileges.

We are persuaded that Nagar describes the claimed "associating." *See* Pet. 18–19 (citing Ex. 1005, 159, 498–499, 506; Ex. 1002 ¶¶ 56–57). In particular, Nagar discloses that "a filter driver that layers itself above a mounted logical volume device object managed by a file system driver can perform the virus detection functionality." Ex. 1009, 498. Nagar also explains that filter drivers "intercept I/O requests targeted to certain device

objects by interjecting themselves into the driver hierarchy and by *attaching themselves to the target device objects.*” *Id.* at 159 (emphasis added).

Patent Owner also argues that Petitioner’s reliance on Nagar’s disclosure of attaching a filter driver to a device object fails because “the device object is only a representation of a mounted logical volume and not the actual storage medium itself” and because a person of ordinary skill in the art “would not understand a representation of a mounted logical volume to be the same as the actual logical storage medium.” PO Resp. 31 n.3 (citing Ex. 1005, 499; Ex. 2001 ¶ 61). Patent Owner’s argument and Dr. Melendez’s testimony, however, ignore Nagar’s disclosure of what a device object is. *See* Reply 18 (citing Ex. 1005, 155–156, 159, 502; Ex. 1002 ¶¶ 119). Nagar explains that “[d]evice object structures are created by kernel-mode drivers to represent logical, virtual, or physical devices. For example, a physical device, such as a disk drive, is represented in memory by a device object.” Ex. 1005, 155–156. Nagar further explains that, “if you develop a disk driver and do not create a device object structure representing this particular disk device, no user process can access this disk.” *Id.* at 156. Thus, we agree with Petitioner’s assertion that “associating with a logical storage medium is achieved by attaching to a device object, because a computer views the logical storage medium as a device object.” Reply 18 (citing Ex. 1005, 155–156).

Based on the foregoing discussion and Petitioner’s persuasive contentions, we find Nagar describes “associating said operation access privilege with at least one logical portion of said logical storage medium.”

*c) Conclusion*

For the reasons discussed above, we find that Nagar describes the subject matter recited in claims 1 and 22, and, therefore, Petitioner has

proven by a preponderance of the evidence that claims 1 and 22 of the '624 patent are unpatentable under 35 U.S.C. § 102(a) as anticipated by Nagar. Pet. 14–23, 34–36; Ex. 1002 ¶¶ 52–64, 79–82. Because we find Nagar anticipated claims 1 and 22, we also conclude that the subject matter of claims 1 and 22 would have been obvious under 35 U.S.C. § 103(a) based on the teachings of Nagar. Pet. 55–61; Ex. 1002 ¶¶ 117–128.

*2. Dependent Claims 2–11 and 23–31*

Petitioner contends that Nagar discloses or suggests all of the limitations of dependent claims 2–11 and 23–31. Pet. 24–34, 36, 57. Patent Owner does not separately address the patentability of these claims. *See generally*, PO Resp. We have reviewed Petitioner’s arguments and supporting evidence regarding these claims and determine that Petitioner has shown by a preponderance of the evidence that claims 2–11 and 23–31 are anticipated by and obvious over Nagar. Pet. 24–34, 36, 57; Ex. 1002 ¶¶ 65–78, 83, 122.

For example, we agree with Petitioner that Nagar’s mounted logical volume corresponds with the volume required by claims 2 and 23, and that Nagar’s logical volume is the entire logical storage medium of claims 3 and 24. *See* Pet. 24, 36 (citing, *e.g.*, Ex. 1005, 618–621); *id.* at 25, 36 (citing, *e.g.*, Ex. 1005, 618). As another example, we agree that Nagar’s teaching of the process going through the filter driver being a read operation teaches the limitation added by claims 5 and 26 of “wherein said operations comprise at least one of reading.” *See* Pet. 27–28, 36 (citing Ex. 1005, 498–499, Fig. 12-2).



*E. Claims 1–11 and 22–31 — Anticipation by and Obviousness over Vossen*

Petitioner asserts that Vossen anticipates and renders obvious claims 1–11 and 22–31. Pet. 37–55, 61–66. Patent Owner opposes. *See* PO Resp. 15–25. For the reasons set forth below, we determine Petitioner has shown that Vossen teaches or suggests the limitations of claims 1–11 and 22–31. Pet. 37–55, 61–66; Ex. 1002 ¶¶ 84–116, 129–139.

*1. Independent Claims 1 and 22*

Petitioner asserts that Vossen discloses or suggests each claim recitation of independent claims 1 and 22. *See* Pet. 37–46, 53–54, 61–66. Petitioner correctly notes that claims 1 and 22 only differ in their preamble.<sup>10</sup> *Id.* at 53. Thus, though we only refer to claim 1 below for clarity, the analysis for all limitations is the same for claim 22.

Petitioner asserts that Vossen teaches “restrict[ing] the access rights for computer processes to certain file system hierarchies.” Pet. 37 (citing Ex. 1007, 1:42–48, 8:44–49, 10:5–28). Petitioner further asserts that Vossen’s controlled access rights include “reading, writing, opening, and creating operations.” *Id.* (citing Ex. 1007, 3:59–4:16, 10:29–40; Ex. 1002 ¶ 84).

Petitioner contends Vossen’s disclosure of restricting access to certain file system hierarchies describes “applying an operation access privilege to at least a logical portion of a logical storage medium in communication with a computer,” “providing an operation access privilege indicative of at least

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<sup>10</sup> We do not reach the issue of whether the preambles of claims 1 and 22 are limiting as we are persuaded by Petitioner’s arguments that the recitations in the preambles are satisfied by the prior art. *See* Pet. 37–39 (stating, *inter alia*, use of Vossen’s access rights applied to file system hierarchies discloses the preamble of claim 1), 54.

one of an enabled operation and/or a restricted operation to be performed on at least one logical portion of a logical storage medium,” and “associating said operation access privilege with at least one logical portion of said logical storage medium,” as recited by claim 1. *Id.* at 37–42 (citing, e.g., Ex. 1007, 1:25–41, 1:42–48, 8:44–49, 8:19–49, 10:5–40, Fig. 4; Ex. 1002 ¶¶ 84–91). In particular, Petitioner asserts “*Vossen* maintains data structures restricting a process’s access to a computer’s file systems.” *Id.* at 39. Petitioner contends that “*Vossen*’s restrictions disclose the claimed ‘*operation access privilege*’ because they relate to enabling and restricting access to a file, including reading, writing, opening, and creating operations.” *Id.* at 37 (citing Ex. 1002 ¶ 84; Ex. 1007, 3:59–4:16, 10:29–40; Ex. 1001, 5:51–57).

Petitioner also contends *Vossen*’s disclosure that a filter driver receives and examines all Input/Output (I/O) Request Packets (IRPs) that are directed to the file system driver describes the “intercepting” step of claim 1. *Id.* at 42–45 (citing Ex. 1007, 3:59–4:16, 4:23–30, 4:43–67, 6:1–5, 6:54–57, 7:28–31, 8:25–49, 9:55–10:40, 11:1–12, Fig. 6; Ex. 1002 ¶¶ 92–98). Petitioner argues *Vossen* describes the “at least one of allowing . . . and/or denying” steps of claim 1 by its disclosure of determining whether there are any file system restrictions for each IRP. *Id.* at 45–46 (citing Ex. 1007, 8:19–49, 10:5–28, 10:56–67; 11:1–4; Ex. 1002 ¶¶ 99–101).

Patent Owner makes a number of arguments as to why *Vossen* does not describe “applying (or providing) an operation access privilege” (PO Resp. 15–19) or “associating said operation access privilege with at least one logical portion of said logical storage medium” (PO Resp. 19–25).

Patent Owner argues that *Vossen* does not describe an “operation access privilege” because *Vossen* discloses restrictions that “are *user-centric*



*and process-centric.*” PO Resp. 17. As with its arguments against Nagar, Patent Owner cites the prosecution history of the ’624 patent to argue that “Vossen’s security descriptors necessarily depend on which users are given permission and are not ‘based solely on the operation, and regardless of the user.” *Id.* at 16 (quoting Ex. 1004, 43) (citing Ex. 2001 ¶ 39); *see also id.* at 18 (stating that “[b]asing access right decisions on who may access does not suggest or render obvious operation access privileges”) (citing Ex. 2001 ¶ 41). As discussed above in § II.D.1.a, however, this argument during prosecution was directed to language of the pending claims reciting that intercepting an attempted operation “occurs regardless of an identity of a user.” Ex. 1004, 34, 36, 39. As such, we disagree with Patent Owner’s argument that these statements limit the meaning of “operation access privilege.”

The intercepting step of claim 1 does require that the “intercepting occurs regardless of an identity of a user attempting said attempted operation.” We agree with Petitioner that Vossen’s filter driver intercepts the attempted operation by examining the IRP’s from the kernel before passing them along to the file system driver and that this interception occurs regardless of the identity of the user attempting the operation. *See* Pet. 42–45. Vossen discloses that, “[o]nce the process restriction file system filter is installed, it receives *all* I/O requests destined for physical file systems.” Ex. 1007, 9:55–56 (emphasis added), *quoted in* Pet. 44. We agree with Petitioner that Vossen also “determines whether to allow the intercepted operations based on data structures associated with process initiating the operation.” Pet. 45 (citing Ex. 1007, 8:25–49). Therefore, because Vossen discloses intercepting *all* I/O requests before checking them against the data

structures, it describes intercepting an attempted operation “regardless of an identity of a user,” as recited in claim 1.

Patent Owner also argues that “a ‘process’ in Vossen is not an ‘operation’ as in the ‘624 Patent” and, therefore, that Petitioner’s reliance on Vossen’s disclosure of restricting processes does not describe the claimed subject matter. PO Resp. 18 (citing Ex. 2001 ¶ 42; Ex. 1007, 3:16–19). But as Petitioner correctly asserts, Vossen’s restrictions relate to particular operations. *See* Pet. 37 (citing Ex. 1002 ¶ 84; Ex. 1007, 3:59–4:16, 10:29–40; Ex. 1001, 5:51–57). For example, Vossen discloses that “[t]he security descriptor contains attributes describing which users or pseudo-users are permitted to access the file, *and in what ways (obtain file contents, modify contents, or both).*” Ex. 1007, 4:1–4 (emphasis added). We are persuaded by Petitioner’s contention that “Vossen’s restrictions disclose the claimed ‘operation access privilege’ because they relate to enabling and restricting operation access to a file, including reading, writing, opening, and creating operations.” *See* Pet. 37 (citing Ex. 1002 ¶ 84; Ex. 1007, 3:59–4:16, 10:29–40; Ex. 1001, 5:51–57). As discussed above in § II.D.1.a.1, claim 5 of the ‘624 patent defines the “operation access privileges” as follows: “wherein said operations comprise at least one of reading, executing, appending, creating new objects, deleting, renaming, moving, overwriting, modifying attributes, and/or modifying data object security.” Ex. 1001, 10:54–58. Vossen discloses restrictions for operations such as “obtain file contents,” i.e., read, and “modify file contents,” i.e., write. Ex. 1007, 4:1–4; *see* Ex. 1002 ¶ 84 (Dr. Weissman testifying that Vossen’s restrictions “relate to enabling (or restricting) access to a subhierarchy, including reading, writing, opening, and creating access”). Thus, we find Vossen expressly describes two operation access privileges identified in the ‘624 patent—read and write.

We also are persuaded, and we find, that Vossen's restrictions are applied to, and associated with, a logical portion of a logical storage medium. As discussed above in § II.C.1, we do not agree with Patent Owner's assertions that "'associating said operation access privilege with at least one logical portion of said logical storage medium' means to combine or join the operation access privileges within at least one logical portion of said logical storage medium." PO Resp. 21. Vossen discloses "restricting a process or process hierarchy to a subset of a computer host's file system(s)" by using a SetProcessRootDirectories() function call to "provide[] the path name of a file system hierarchy within which the calling process should be restricted for one or more file systems." Ex. 1005, 2:3–6, 8:25–31; *see* Pet. 41–42. Vossen also discloses that every hard disk has a certain number of partitions and that "[e]ach partition has the potential to contain a file system." Ex. 1005, 6:22–25. Because each file system to which restrictions are applied exists on a portion of a storage medium, namely a hard disk partition, we are persuaded, and we find, that Vossen's disclosure of restricting access to a file system describes "applying" the restriction to, and "associating" / "providing" the restriction with, a logical portion of a logical storage medium, as asserted by Petitioner. *See* Pet. 37–42.

Our findings in this regard are consistent with Patent Owner's characterization of Vossen's disclosure as follows:

Vossen is aimed at limiting the ability of executing processes associated with application programs and running within a computer from accessing portions of storage that the processes are not authorized to access which a [POSA] understands as being manifested in the allowance of access by executing processes to *only certain portions of a logical storage*.

PO Resp. 16 (emphasis added) (citing Ex. 1007, Abstract, 1:5–8, 1:11–14, 1:63–67, 2:3–6, 2:65–3:1; Ex. 2001 ¶ 40). Thus, even under Patent Owner’s understanding, Vossen describes applying restrictions to a storage medium, even if those restrictions further specify user and process restrictions. That Vossen’s restrictions may further be limited to particular users or processes does not negate Vossen’s disclosure that the restrictions are associated with the storage medium.

For the “intercepting” step, as discussed above, Vossen discloses that, “[o]nce the process restriction file system filter is installed, it receives all I/O requests destined for physical file systems.” Ex. 1005, 9:55–56, *cited in* Pet. 44. Thus, because Vossen discloses that all IRPs are received in the filter, we find that Vossen describes intercepting in a trap layer an attempted operation on a logical portion of the logical storage medium regardless of the identity of the user attempting the operation.

Petitioner also argues and we agree that “the subhierarchies and portions of *Vossen*’s storage medium are identified by a ‘data identifier,’” and therefore, the logical portion is identified by at least one data identifier as required by claim 1. Pet. 44 (citing Ex. 1002 ¶ 96, Ex. 1007, 6:15–31, 8:25–43, 9:12–14). We find that Vossen teaches that intercepting occurs “transparently to the user and transparently to a computer application invoking said operation,” as required by claim 1. “*Vossen* teaches that its filter driver ‘*maintains its transparency to applications* by removing the process restriction hierarchy path from the path name returned to the application.’” *Id.* at 45 (quoting Ex. 1007, 11:18–20). We credit Dr. Weissman’s testimony that a POSA “would have understood that a process restriction driver that maintains transparency to applications would also maintain transparency to users.” Ex. 1002 ¶ 98.

For the “allowing . . . and/or denying” step, we agree with Petitioner that Vossen teaches that the filter driver allows an attempted operation if it finds a match between the requested operation on the file system and an entry in the restriction data structure and denies the operation if there is no corresponding entry in the restriction data structure. Pet. 46 (citing, *e.g.*, Ex. 1007, 10:5–28, 11:1–4; Ex. 1002 ¶ 101). As with its arguments against Nagar, Patent Owner argues that claim 1’s operation must be based *solely* on the attempted operation: “Vossen’s security descriptors necessarily depend on which users are given permission and are not ‘based solely on the operation.’” PO Resp. 16 (quoting Ex. 1004, 43) (citing Ex. 2001 ¶ 39). As discussed above, however, claim 1 does not require that allowing or denying the operation be based “solely on the operation,” as Patent Owner asserts. Rather, claim 1 requires allowance or denial to be based on “if matching said enabled operation” or “said restricted operation.” We are persuaded by Petitioner, and we find, that allowing or denying access based on “what ways” a user is permitted to access a file, such as “obtain file contents,” *i.e.*, read, or “modify contents,” *i.e.*, write, describes “at least one of allowing said attempted operation if matching said enabled operation, modifying and allowing said modified attempted operation, and/or denying said attempted operation if matching said restricted operation,” as recited in claim 1.

Based on the foregoing discussion and Petitioner’s persuasive contentions, we find that Vossen describes the subject matter recited in claims 1 and 22, and, therefore, Petitioner has proven by a preponderance of the evidence that claims 1 and 22 is unpatentable as anticipated by and obvious over Vossen. Pet. 37–46, 53–54, 61–66; Ex. 1002 ¶¶ 84–101, 113–115; 129–139.

2. *Dependent Claims 2–11 and 23–31*

Petitioner contends that Vossen discloses or suggests all of the limitations of dependent claims 2–11 and 23–31. Pet. 46–55, 64. Patent Owner does not separately address the patentability of these claims. *See generally*, PO Resp. We have reviewed Petitioner’s arguments and supporting evidence regarding these claims and determine that Petitioner has shown by a preponderance of the evidence that claims 2–11 and 23–31 are anticipated by and obvious over Vossen. Pet. 46–55, 64; Ex. 1002 ¶¶ 102–112, 116, 135.

F. *Claims 10 and 31 — Alleged Obviousness over Vossen and Willman, or Vossen and Nagar*

Petitioner additionally asserts that Vossen and Willman, or Vossen and Nagar, render obvious dependent claims 10 and 31. Pet. 67–72. Patent Owner does not separately address Petitioner’s positions. *See generally*, PO Resp.

We have already determined that claims 10 and 31 are unpatentable as anticipated by and obvious over each of Nagar and Vossen. Thus, this Decision addresses all claims challenged under multiple grounds. *See* 35 U.S.C. § 318(a) (“If an inter partes review is instituted and not dismissed under this chapter, the Patent Trial and Appeal Board shall issue a final written decision with respect to the patentability of any patent claim challenged by the petitioner and any new claim added under section 316(d).”). Furthermore, this Decision resolves the disputes between the parties, which focus entirely on issues relating to the independent claims. Petitioner’s additional contentions for claims 10 and 31 in these grounds do not impact the analysis of the parties’ arguments discussed above. Thus, there is no additional dispute to resolve between the parties regarding



claims 10 and 31, and we decline to assess separately these additional asserted grounds of unpatentability.

*G. Constitutionality of Inter Partes Review Proceedings*

Patent Owner asserts that *inter partes* review proceedings are “unconstitutional under the Takings Clause . . . and Due Process Clause . . . of the United States Constitution, as applied retroactively to this patent which issued before” *inter partes* review proceedings became law. PO Resp. 33–34.

Petitioner correctly notes that:

Recent Federal Circuit cases foreclose this argument. Applying *inter partes* review to pre-AIA patents is not a constitutional taking. *See Celgene Corp. v. Peter*, 931 F.3d 1342, 1358-63 (Fed. Cir. 2019); *see also Genentech, Inc. v. Hospira, Inc.*, No. 18-1933, slip op. at 15-16 (Fed. Cir. Jan. 10, 2020). Nor does it upset due process. *See OSI Pharm., LLC v. Apotex, Inc.*, 939 F.3d 1375, 1385-86 (Fed. Cir. 2019); *Arthrex, Inc. v. Smith & Nephew, Inc.*, 935 F.3d 1319, 1331-32 (Fed. Cir. 2019). Petitions to upend these rulings have uniformly failed. *See, e.g., Enzo Life Scis., Inc. v. Becton, Dickinson & Co.*, No. 18-1232 (Fed. Cir. Dec. 4, 2019) (order denying panel rehearing and rehearing en banc). Unless the Supreme Court reverses these cases, they remain controlling law.

Reply 26.

We decline to consider Patent Owner’s arguments as the Federal Circuit has determined that *inter partes* review proceedings are not unconstitutional under the Takings Clause or Due Process Clause. *Celgene*, 931 F.3d at 1362; *Arthrex*, 935 F.3d at 1332.

### III. CONCLUSION<sup>11</sup>

For the reasons discussed above, we determine Petitioner has proven, by a preponderance of the evidence, that all of the challenged claims are unpatentable, as summarized in the following table:

<b>Claims</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Claims Shown Unpatentable</b>	<b>Claims Not Shown Unpatentable</b>
1-11, 22-31	102, 103	Nagar	1-11, 22-31	
1-11, 22-31	102, 103	Vossen	1-11, 22-31	
10, 31	103 <sup>12</sup>	Vossen, Willman		
10, 31	103 <sup>13</sup>	Vossen, Nagar		
<b>Overall Outcome</b>			1-11, 22-31	

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<sup>11</sup> Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. § 42.8(a)(3), (b)(2).

<sup>12</sup> As explained above, because we determined the challenged claims as unpatentable in light of both Nagar and Vossen, we declined to address this ground.

<sup>13</sup> As explained above, because we determined the challenged claims unpatentable in light of both Nagar and Vossen, we declined to address this ground.



IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–11 and 22–31 of the '624 patent have been shown to be unpatentable; and

FURTHERED ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2019-00598  
Patent 7,076,624 B2

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