

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Netskope, Inc.

Petitioner,

v.

Fortinet, Inc.

Patent Owner.

Case IPR2023-00456
Patent No. 11,036,856

PATENT OWNER SUR-REPLY

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Rules and Regulations

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EXHIBIT TABLE

Exhibit #	Description
2001	Declaration of John Black, Jr., Ph.D.
2002	<i>Curriculum vitae</i> of John Black, Jr., Ph.D.
2003	FortiSandbox 4.2.4 Administration Guide, <i>available at</i> https://fortinetweb.s3.amazonaws.com/docs.fortinet.com/v2/attachments/fba32b46-b7c0-11ed-8e6d-fa163e15d75b/FortiSandbox-4.2.4-Administration_Guide.pdf .
2004	Supplemental Declaration of John Black Jr., Ph.D.
2005	Transcript of the Testimony of Dr. Franz (November 29, 2023)
2006	Transcript of the Testimony of Dr. Franz (April 23, 2024) with Exhibit 1 discussed therein.

Petitioner's obviousness combinations fail because each requires modifying the prior art to make it *less* efficient and *less* secure and Petitioner has failed to articulate any benefits to counter these drawbacks. First, Petitioner proposes modifying the prior art's disclosure of moving files within a file system—a process that can be implemented efficiently by reorganizing the file system directory—to use the more resource-intensive “copying” required by the challenged claims. Second, Petitioner proposes moving the scanning process from the cloud store that holds the files being scanned to a local enterprise network, which in turn requires needlessly downloading files from the cloud store to the enterprise network. Critically, Petitioner does not identify any benefit of either modification, much less weigh any such benefit against their clear drawbacks. In a field concerned with improving efficiency and security, and in the absence of any identified benefits, Petitioner's proposed modifications make no sense.

Petitioner instead relies on a series of legally incorrect, counterfactual, or irrelevant arguments. Ultimately, however, Petitioner is unable to point to any evidence in the record to meet its burden of proving a POSITA would have been motivated to make the prior art less efficient and less secure by implementing Petitioner's proposed modifications.

I. GROUNDS 1 AND 2 FAIL TO RENDER OBVIOUS “COPYING”

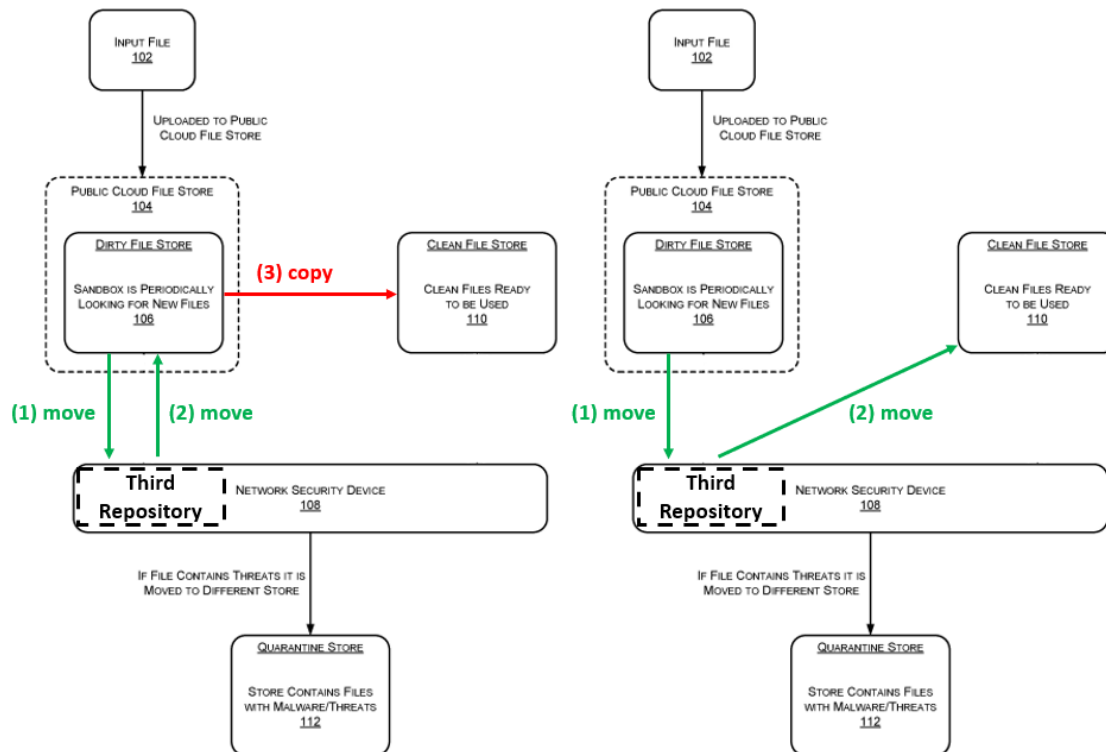
A. Prior Art’s “Moving” Does Not Disclose “Copying”

There is no dispute that the asserted claims require “copying” a file, whereas the prior art discloses “moving” a file. These are different terms, and even Petitioner’s expert conceded they are not synonymous. Ex. 2005 (Franz 2023-11-29 Tr.) at 45:2-4. The Petition made no attempt to overcome the presumption that “[d]ifferent claim terms ... have different meanings.” *See Bd. of Regents of the Univ. of Tex. Sys. v. BENQ Am. Corp.*, 533 F.3d 1362, 1371 (Fed. Cir. 2008). Rather, Petitioner argues for the first time in Reply that the terms are synonymous, relying almost entirely on the institution decision as support. Petitioner’s arguments fall short.

First, Petitioner faults the ’856 patent for not expressly defining the two terms (“copying” and “moving”) and calling out the “significance” of their differences. *See* Reply at 4, 7, 10 n.4. Both terms, however, are readily understood by a POSITA (Ex. 2004 (Black Supp. Decl.) ¶60), and the ’856 patent “need not teach, and preferably omits, what is well known in the art.” *See Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986).

Second, Petitioner incorrectly contends that claim 12 of the ’856 patent uses the terms interchangeably. Reply at 5. But claim 12 does not support Petitioner—to the contrary, it *expressly draws a distinction* between “moving” and “copying.”

Claim 12 describes two potential sequences of operations. In the first sequence, a file is (1) “mov[ed]” from the first repository to a third repository; (2) “mov[ed] back” “into the first repository”; and then (3) “cop[ied] to the second repository.” In the second sequence, a file is (1) “mov[ed] from the first repository to a third repository; and then (2) “mov[ed] ... directly from the third repository to the second repository.” Both sequences are illustrated below in modified versions of Figure 1B:



Claim 12 thus describes different operations as either “moving” or “copying” but never conflates the two terms to describe the same operation.¹

Third, Petitioner argues that distinguishing “copying” and “moving” somehow excludes the embodiment described in Figure 1A and claimed in dependent claim 9. Reply at 5-7. Not so. For context, in Figure 1A and claim 9, both the “first repository” and the “second repository” are part of the same “public cloud file store,” whereas in Figure 1B and claim 8, the “second repository” is outside the public cloud file store that hosts the “first repository.” As Patent Owner explained, use of “copying” renders the method of claim 1 applicable to both embodiments, since it would be impractical to move files without copying in the Figure 1B embodiment. PO Response at 22-23. In response, Petitioner mischaracterizes this argument as “‘copying’ is undertaken *only* between different file systems.” Reply at 9-10 (emphasis added). Based on this mischaracterization, Petitioner then argues that Patent Owner’s interpretation of “copying” excludes Figure 1A and claim 9. But Patent Owner never argued files cannot be copied within the same public cloud file

¹ Petitioner states that “claim 12 uses ‘moving’ and ‘copying’ ... to refer to relocating a file between repositories.” Reply at 5. The fact that both terms fall within the broad genus of “relocating a file” does not show they are interchangeable.

store shown in Figure 1A and claim 9. Rather, “copying” can be used to implement the embodiments of *both* Figure 1A and claim 9 *and* Figure 1B and claim 8.

While “copying” data is less efficient in some circumstances, such as Petitioner’s prior art, the ’856 patent accepts this drawback due to the flexibility it affords in supporting the embodiment of Figure 1B and claim 8. Ex. 2004 (Black Suppl. Decl.) ¶¶ 57-60. In addition, even in Figure 1A and claim 9, files can be moved between different “buckets” within the same public cloud file store, thereby improving security, and moving files between different “buckets” would also require using a “copying” operation. Ex. 1012 (Black Tr.) at 35:8-37:9. The prior art, in contrast, does not recognize either of these benefits and thus has no reason to use the claimed “copying.” Ex. 2004 (Black Suppl. Decl.) ¶¶ 57, 60; Ex. 1012 (Black Tr.) at 35:19-20 (“This concept isn’t described anywhere in the prior art.”).

Fourth, Petitioner cites various discussions from the ’856 patent specification regarding “moving,” “copying,” “sharing,” and “transferring.” Reply at 7-9. As a preliminary matter, while “sharing” and “transferring” also each have their own distinct meaning (Ex. 2004 (Black Suppl. Decl.) ¶¶ 51-52), those terms are irrelevant, since neither the claims nor the prior art pertains to those concepts. The sole issue is whether the ’856 patent conflates “copying” and “moving.” It does not. At best, the ’856 patent specification at 8:53-57 shows that the “moving” of Figure 1A and 1B can be implemented by “copying” files. But that is entirely consistent

with the ordinary meaning of these terms: “moving” can be implemented by “copying” files (as found in the ’856 patent) or without the claimed “copying” (as found in Petitioner’s prior art). Thus, Patent Owner’s citations do not show the ’856 patent using these terms interchangeably.²

For these reasons, Petitioner’s reliance on *Wasica Fin. GMBH v. Cont’l Auto. Sys., Inc.* is also misplaced. Reply at 4. At issue in *Wasica* were the terms “emit” and “transmit.” 853 F.3d 1272, 1282 (Fed. Cir. 2017). The Federal Circuit found those terms interchangeable because the specification describes a single “transmitter” that both “emit[s]” and “transmit[s]” signals, “[t]his equivocation is prevalent throughout the claims,” and “the written description at times conflates ‘transmitter’ and ‘emitter.’” *Id.* at 1282 n.6. Here, in contrast, Petitioner has not identified any instance where the ’856 patent specification or claims conflate “copying” and “moving.” Rather, the ’856 patent delineates between the two, and Petitioner’s citations at best show that “moving” can be implemented by “copying” files. The fact that one operation can be implemented using another operation as one of its steps does not conflate the “moving” and “copying” operations.

² Same is true for Petitioner’s extrinsic evidence (Reply at 11), which only shows that “moving clean files” can be implemented by “cop[ying]” those files. *Id.*

Fifth, Petitioner’s discussion of a “copy-on-write” operation is irrelevant and incorrect. Reply at 12, 15. Neither the ’856 patent nor the prior art makes any reference to this concept. Moreover, as Dr. Black explained in his deposition, “copy-on-write” is a fundamentally different process than “copying”:

I’m aware of this other term. It’s not called copying. It’s called copy-on-write. Which could suggest, perhaps, to someone who’s not familiar with the term, that it’s making a separate copy. But instead, it’s using a trick with links, and it’s just making a link to the same copy. And if you read the documentation on copy-on-write, it will describe what it’s actually doing, and say it’s not doing a copy. It’s actually just making a link to the same copy.

Ex. 1012 (Black Tr.) at 15:8-17. Thus, Petitioner’s discussion of a “copy-on-write” operation—distinct from the “copying” and/or “moving” operations discussed in the ’856 patent and the prior art—is irrelevant.

Moreover, to the extent there is any “copying” in a “copy-on-write” operation, that copying still refers to the duplication of at least parts of a file in memory. Specifically, as explained by Petitioner’s own expert, in a “copy-on-write” operation “additional disk storage blocks are allocated ... upon writing.” Ex. 1013 (Franz Reb. Decl.) ¶ 19. It is only at this point in time, when portions of the file are actually duplicated, that any “copying” occurs. Indeed, this is apparent from the name of the operation: “copy-on-write” means a “copy” is made “on write,” *i.e.*, “upon writing.” Ex. 2006 (Franz 2024-04-23 Tr.) at 86:25-87:5 (“Q: Is it fair to say that you’re relating the words upon writing to the words on write. A: Yes.”). Thus, the main

difference is that a normal “copying” operation performs the copying when the command is issued, whereas a “copy-on-write” operation performs the copying only “on write” (*i.e.*, “upon writing”). In both cases, however, “copying” refers to duplicating at least part of a file in memory, consistent with Patent Owner’s explanation and distinct from the moving of files without copying found in Petitioner’s prior art.

Dr. Franz’s admissions in his deposition further undermine his position that a “copy-on-write” operation somehow creates copies without duplicating files in memory. Specifically, Dr. Franz testified that one of the uses of “copy-on-write” is for creating “a shadow copy for backup purposes” and relied on Microsoft Windows Server 2012 for his understanding of how the “copy-on-write” operation is implemented. Ex. 2006 (Franz 2024-04-23 Tr.) at 82:17-21, 98:14-99:13. Dr. Franz was then confronted with a Microsoft article describing the “volume shadow copy service” for Windows Server 2012. *Id.* at 98:14-99:13. The article explained on page 6 that, when using a “copy-on-write” operation, there was “no copy ... prior to the subsequent write operation.” *Id.* at 104:4-7, 111:1-7. When Dr. Franz was asked whether “this Microsoft article is misusing the word copy-on-write” on page 6, he admitted that “copy-on-write is probably not an inappropriate term to relate to a ... a person using this service of [] what it does.” *Id.* at 104:4-7, 110:3-11. Dr. Franz’s inability to contest the accuracy of the Microsoft article’s characterization of “copy-

on-write” as making “no copy” until data is duplicated in memory contradicts his own characterization of the “copy-on-write” operation.

Sixth, Petitioner’s arguments that “PO’s definition of ‘copying’ covers ‘moving’” is irrelevant. Reply at 13. Patent Owner is not disputing that a “moving” operation *can* be implemented by “copying” a file. But a “moving” operation is often (including in Petitioner’s prior art) implemented *without* copying. Instead, the issue is that Petitioner’s prior art “mov[es]” files without copying and thus does not disclose or render obvious the claimed “copying” step. That some other technologies not relied on by Petitioner or its prior art could implement “moving” with “copying” is thus irrelevant to Petitioner’s proffered invalidity grounds.

Accordingly, Petitioner fails to rebut the presumption that “moving” and “copying” are different operations.

B. Prior Art’s “Moving” Does Not Render Obvious “Copying”

Once “moving” and “copying” are correctly understood as referring to different operations, it is plain that Petitioner’s prior art describes “moving” files and does not disclose the claimed “copying.” The inquiry then shifts to whether Petitioner met its burden of showing that it would have been obvious to modify the art to perform the claimed “copying.” Here, Petitioner failed to carry that burden, including because Petitioner failed to identify *any* rationale for any such

modification. The original Petition was entirely silent on such a rationale, and Petitioner's Reply does not cure this deficiency.

1. *Ground 1: Burdett and FortiSandbox Do Not Render Obvious "Copying"*

For Ground 1, Petitioner points to Burdett's "moving" operation as allegedly rendering obvious the claimed "copying." The only disclosure in Burdett of how this "moving" is implemented is by "chang[ing] ... the location (e.g., path in a file system) of a file," *i.e.*, without copying. Ex. 1004 (Burdett) at 25:28-31; Ex. 2004 (Black Suppl. Decl.) ¶ 57. This is consistent with Burdett's goal of "provid[ing] protection ... in a manner that is simple and efficient and with minimal performance impact." Ex. 1004 (Burdett) at 1:42-53. As Dr. Black explained, "moving" large files is "instantaneous, virtually," and would "take a few milliseconds," whereas implementing the move via "copying" could take "20 minutes, an hour." Ex. 1012 (Black Tr.) at 29:14-21; *see also id.* at 29:22-30:12 (addressing common uses of large file sizes). None of Petitioner's arguments justify a departure from Burdett's "simple and efficient" solution to arrive at the claimed "copying."

First, Petitioner argues that "in many circumstances moving files entails copying" and that "copying a file can be—and often was—accomplished using a directory update." Reply at 14-15. Both of these arguments are purely hypothetical. While "moving" files *can* be implemented using "copying," that is not what Burdett teaches. Ex. 2004 (Black Suppl. Decl.) ¶ 57. And Petitioner's argument based on

“copy-on-write” ignores that (1) the cited prior art does not disclose that particular operation; (2) “copy-on-write” is not the same as the claimed “copying”; and (3) even in “copy-on-write,” that copy (if any) is still created by duplicating part of the file in memory “on write” (*i.e.*, “upon writing”). *Supra* Section I.A.

Second, Petitioner argues that Burdett’s “‘moving’ (a genus) discloses both species of ‘moving with copying’ and ‘moving without copying.’” Reply at 16-17. This theory is legally incorrect: disclosing a genus does not automatically disclose or render obvious each species within that genus. *See Atofina v. Great Lakes Chem. Corp.*, 441 F.3d 991, 999 (Fed. Cir. 2006) (“[D]isclosure of a genus in the prior art is not necessarily a disclosure of every species that is a member of that genus.”); *In re Baird*, 16 F.3d 380, 382 (Fed. Cir. 1994) (“[T]hat a claimed compound may be encompassed by a disclosed generic formula does not by itself render that compound obvious.”).³ Moreover, Petitioner is wrong that “Burdett broadly discloses ‘moving.’” Reply at 17. Rather, Burdett only discloses “moving” files by

³ Petitioner cites *Petering* and *Schaumann* for the proposition that “a genus can anticipate a species.” Reply at 16 fn. 6. In those cases, the prior art demonstrated a “pattern of preferences” for the claimed species. *See Sanofi-Synthelabo v. Apotex, Inc.*, 470 F.3d 1368, 1377-78 (Fed. Cir. 2008). Here, Burdett has no preference for moving with copying and instead discloses moving without copying.

“chang[ing] ... the location (*e.g.*, path in a file system) of a file,” *i.e.*, without copying. Ex. 1004 (Burdett) at 25:28-31; Ex. 2004 (Black Suppl. Decl.) ¶ 57.⁴

Third, Petitioner contends that “Burdett ... discloses moving with copying.” Reply at 18. Petitioner is again incorrect. Petitioner’s argument is based on Burdett’s statement that the “cloud data stores 306” can consist of “multiple data stores” or “S3 buckets.” Ex. 1004 (Burdett) at 23:38, 28:2-3. But there is *no* disclosure in Burdett of “moving” files between different S3 buckets—Petitioner is relying on hindsight bias. *See* Ex. 1012 (Black Tr.) at 35:19-21 (“This concept isn’t described anywhere in the prior art, of course. This is something I’m reading from the ’856 [patent].”). Tellingly, Petitioner’s statement that “a POSITA would have found it obvious to configure the scanning service to move files into multiple volumes after determining the files are clean, including moving a file from a dirty file repository on one volume to a clean file repository on another, different volume” (Reply at 17), is pure attorney argument with no citation to anything in the record for support. In fact, Petitioner submitted a rebuttal report from its expert, Dr. Franz, yet Dr. Franz never contends that Burdett discloses or renders obvious moving files between S3

⁴ Petitioner argues that this is just “an *exemplary* mechanism to prevent access to a file.” Reply at 17 (emphasis in original). Significantly, however, this is the *only* example in Burdett of how “moving” is implemented.

buckets. Moreover, even Petitioner’s attorney argument is lacking because it fails to identify any motivation to move files between “data stores” or “S3 buckets” in Burdett’s “cloud data stores.” Thus, Burdett not only fails to disclose moving files between different S3 buckets—and thus does not disclose the claimed “copying”—Petitioner has failed to show that any such “move” would be obvious.

Fourth, Petitioner argues that “[s]elections between known, predictable solutions are obvious.” Reply at 15. That alone, however, does not justify departing from Burdett’s express teachings. “To prove obviousness under an obvious to try theory,” Petitioner must *also* show “***a design or market need to solve a particular problem.***” See *Grunenthal GMBH v. Alkem Labs. Ltd.*, 919 F.3d 1333, 1345 (Fed. Cir. 2019) (emphasis added); see also *Rolls-Royce, PLC v. United Technologies Corp.*, 603 F.3d 1325, 1339 (Fed. Cir. 2010) (“A particular course or selection is not obvious to try unless some design need or market pressure or other motivation would suggest to [a POSITA] to pursue the claimed course or selection. ... In other words, [a POSITA] must have ‘good reason to pursue the known options within [] her technical grasp.’”). Here, Petitioner purports to address only one of the requirements of an “obvious to try” theory but has failed to identify any “design or market need” or “particular problem” with Burdett’s approach of moving files without copying. Thus, Petitioner has failed to show it would be obvious to depart from Burdett’s

teachings and instead use the claimed “copying,” especially in light of the identified drawbacks of this modification.

Fifth, Petitioner argues that modifying Burdett’s “moving” without copying to instead use “copying” “would not *necessarily* impact efficiency of Burdett’s system.” Reply at 19-20 (emphasis added). Petitioner’s argument depends on a theory that Burdett could “employ copy-on-write semantics as described above” to “copy” a file within the same storage volume without actually duplicating any portion of the file in memory. *Id.* at 19. This is a new obviousness theory relying on new evidence of this “copy-on-write” operation (including exhibits to Dr. Franz’s rebuttal declaration) and a new combination of Burdett with this “copy-on-write” operation to meet Petitioner’s prima facie burden on obviousness. Hence, Petitioner’s new obviousness theory should not be considered. *See Consolidated TPG* (Nov. 2019), Section II.I (“Petitioner may not submit new evidence or argument in reply that it could have presented earlier, e.g. to make out a prima facie case of unpatentability.”).

Moreover, Petitioner assumes without support that it would be obvious to implement Burdett’s moving operation via a “copy-on-write” operation. There is no expert opinion, no evidence, and no analysis to support that assumption. Indeed, Burdett discloses using the “moving” operation to “prevent access to a file.” Ex.

1004 (Burdett) at 25:28-29. But with “copy-on-write,” the original file would remain accessible, and use of that operation would thus fail to “prevent access.”

Finally, as addressed above, a “copy-on-write” operation is not the same as the claimed “copying” operation. To the extent a “copy-on-write” operation generates any “copy,” it does so by duplicating at least a portion of the file in memory “on-write.” Accordingly, even if a “copy-on-write” operation were to disclose the claimed “copying,” it would still incur the same processing inefficiencies that are absent from Burdett’s moving without copying.

Finally, even more important than the arguments raised by Petitioner is what is missing from the Reply. Petitioner still does not identify any benefit to modifying Burdett’s moving without copying to instead use Petitioner’s “copy-on-write” operation or the claimed “copying.” *See Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011) (obviousness cannot be shown by “conclusory statements”; “there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”). Nor has Petitioner provided any analysis or explanation of how any such unidentified benefits might outweigh the clearly articulated drawbacks of the proposed modification. *See Arctic Cat Inc. v. Polaris Industries, Inc.*, 795 F. App’x 827, 833 (Fed. Cir. 2019) (“The Board must weigh the benefits and drawbacks of the modification against each other,

to determine whether there would be a motivation to combine.”). Thus, Petitioner’s obviousness theory falls short.

2. Ground 2: Sharpe, Seese, and Kamalapuram Do Not Render Obvious “Copying”

For Ground 2, Petitioner asserts that “PO’s arguments for nonobviousness of ‘copying’ a file in view of Sharpe-Seese-Kamalapuram fail for similar reasons to those discussed for Burdett-FortiSandbox.” Reply at 20-21. For the reasons discussed above, Petitioner’s arguments for Ground 2 also fail.

II. PETITIONER’S COMBINATIONS FOR GROUNDS 1 AND 2 ARE NOT OBVIOUS⁵

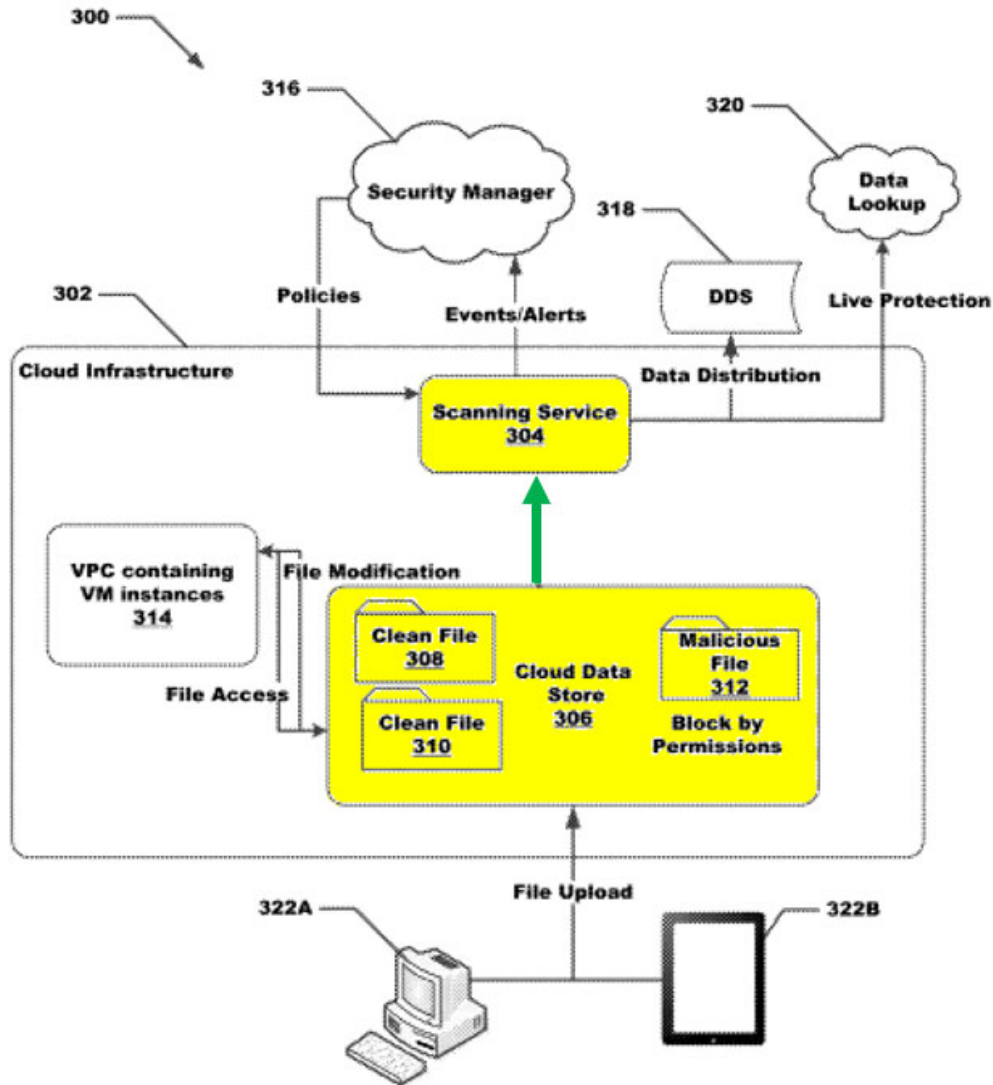
A. Ground 1: Proposed Combination of Burdett and FortiSandbox Is Inefficient and Creates Security Issues

Ground 1 proposes combining Burdett’s scanning service with FortiSandbox’s teaching of a sandboxing appliance. Specifically, the sandboxing appliance would be deployed in an enterprise’s network, and the scanning service would then run on the sandboxing appliance. As explained in the Response, this combination fails because Petitioner’s proffered benefits are independent of where

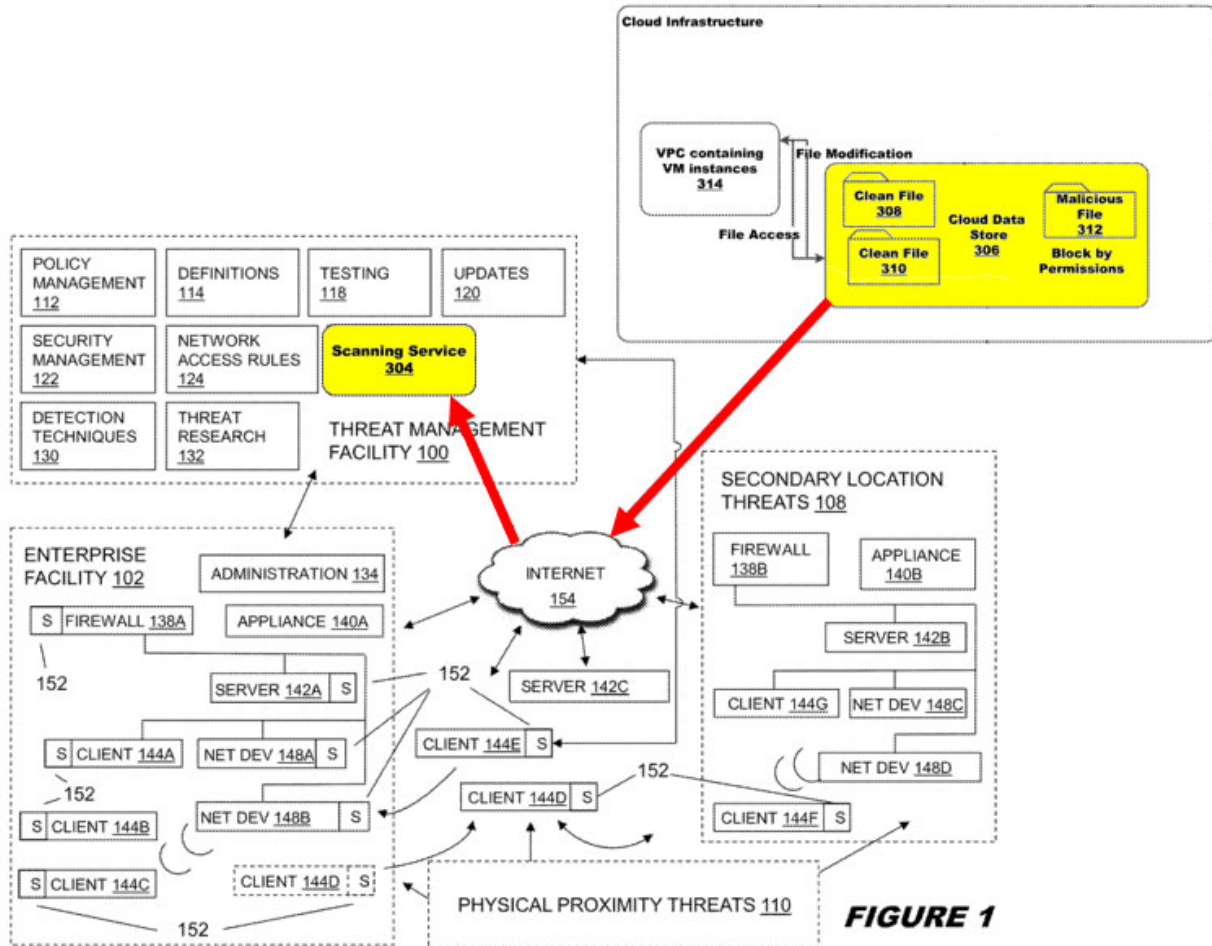
⁵ Contrary to Petitioner’s assertions (Reply at 21, 23), these arguments have not been previously presented to the Board. The POPR focused specifically on the “native mounting” aspect of Petitioner’s combination, not the location of the scanning service. POPR at 23-27, 33-40.

the scanning service is deployed, and deploying the scanning service in the enterprise's network, instead of the cloud infrastructure as proposed in Burdett, results in increased latency, bandwidth congestion, security risks, and increased management complexity. POR at 27-30. Petitioner fails to rebut Patent Owner's argument.

One problem with Petitioner's combination is that it requires moving Burdett's scanning service 304 from the cloud infrastructure 302 that also hosts the cloud data store 306 with files being scanned to Burdett's enterprise facility 102 or threat management facility 100. POR at 27-28. Specifically, in Burdett, files to be scanned are not transmitted over the Internet or an enterprise network; they remain in cloud infrastructure 302:



But in Petitioner's proposed combination, files to be scanned are transmitted over the Internet and through the enterprise network to the scanning service:



This modification only has drawbacks and is not required to realize any of the alleged benefits of Petitioner’s proposed combination. POR at 28-30. Critically, Petitioner ***does not*** dispute that all alleged benefits identified in the Petition are realized by combining the prior art ***without*** moving the location of the scanning service. None of the other arguments in the Reply cure this central defect.

First, Petitioner argues that the existence of drawbacks “is irrelevant.” Reply at 21. That is not the law. *See Arctic Cat*, 795 F. App’x at 833 (“The Board ***must***

weigh the benefits *and drawbacks* of the modification against each other, to determine whether there would be a motivation to combine.”) (emphasis added).

Second, Petitioner selectively quotes Patent Owner’s expert to argue that the identified drawbacks are “vague, conclusory, and hypothetical.” Reply at 21. Petitioner misleadingly cites just portions of two bullets from Dr. Black’s list, ignoring Dr. Black’s identification of “consum[ing] bandwidth” and “unnecessary security risks” as outright drawbacks, and entirely ignoring the other two bullets with additional drawbacks (“injecting delay” and “additional managerial complexities”). Ex. 2004 (Black Suppl. Decl.) ¶ 65. Thus, Dr. Black articulated clear, definitive, and substantial drawbacks to Petitioner’s proposed modification. Nor does Dr. Black stand alone. Sharpe recognized many of the same drawbacks. *See, infra*, Section II.B.

Third, Petitioner argues that Dr. Black failed to analyze whether these “drawbacks” “outweigh benefits of the proposed combination.” Reply at 21-22. But this ignores that the Petition (and even Petitioner’s Reply) did not identify *any* benefits to moving Burdett’s scanning process from the cloud infrastructure to Burdett’s enterprise facility 102 or threat management facility 100. Since the identified benefits are independent of and can be realized without moving the scanning process (*e.g.*, by running FortiSandbox as a virtual machine in Burdett’s cloud infrastructure 302, *see* Ex. 1004 (Burdett) at 24:33-36, Ex. 1005

(FortiSandbox) at 65), they cannot justify the drawbacks of Petitioner’s proposed modification to the location of the scanning service. Thus, Dr. Black’s weighing was straightforward: there are no “benefits” to weigh against the identified drawbacks.

Buried in Petitioner’s Reply is a citation to two paragraphs from Dr. Franz’s rebuttal declaration. Reply at 22. The Reply does not present any arguments found in those paragraphs, and thus the arguments buried in Dr. Franz’s rebuttal declaration should not be considered. *See Cisco Sys., Inc. v. C-Cation Techs., LLC*, IPR2014-00454, Paper 12, at 9-10 (PTAB August 29, 2014) (designated informative) (“[W]e will not consider arguments that are ... incorporated by reference to the cited paragraphs ... of [the expert’s] Declaration.”). In addition, those two paragraphs present new rationales for combining the prior art that were absent from the Petition, and the paragraphs should not be considered for that additional reason. *See Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369–70 (Fed. Cir. 2016) (holding that the Board did not err in refusing the reply brief as improper under 37 C.F.R. § 42.23(b) because petitioner relied on an entirely new rationale to explain why one of skill in the art would have combined the references at issue), *cited by PTAB Consolidated Trial Practice Guide* (Nov. 2019), Section II.I.

Even if considered, Dr. Franz’s arguments mirror Petitioner’s alleged “vulnerabilities” discussed in connection with Sharpe. Reply at 23. For the reasons discussed below, those alleged “vulnerabilities” do not outweigh the drawbacks of

moving Burdett's scanning service 304 from cloud infrastructure 302 to Burdett's enterprise facility 102 or threat management facility 100.

Fourth, Petitioner contends that Burdett contemplates files being transferred out of the cloud infrastructure for scanning purposes. Reply at 22. That is incorrect. The cited portions of Burdett only show that, for scanning purposes, files may be copied "to another data store," which may be "a cloud data store" or a "data store of the scanning service." Ex. 1004 (Burdett) at 29:34-38, 30:59-62. But since both the cloud data store 306 and the scanning service 304 are within cloud infrastructure 302 (*id.* at Fig. 3), the cited portions of Burdett only confirm that its files are *not* transferred out of the cloud infrastructure for scanning purposes. This makes sense: Burdett is concerned with "provid[ing] protection ... in a manner that is simple and efficient and with minimal performance impact" (*id.* at 1:42-53) and transferring files outside the cloud infrastructure 302 for scanning injects inefficiency.

B. Ground 2: Proposed Combination of Sharpe, Seese, and Kamalapuram Is Inefficient and Creates Security Issues

As with Ground 1, Petitioner's Reply for Ground 2 fails to rebut the drawbacks of Petitioner's proposal to move Sharpe's "malware scans" from Sharpe's cloud storage provider infrastructure to Seese's DLP server within an enterprise's network infrastructure (including latency, bandwidth consumption, security risks, and added complexity). POR at 33-36.

First, as with Ground 1, Petitioner does not contend that any of the motivations to combine identified in the Petition justify moving Sharpe's anti-virus service to Seese's DLP server. Rather, Petitioner cites for the first time to an alternative embodiment in Sharpe where the anti-virus service may be "located at a secure site" as allegedly "describ[ing] transferring files between various environments" and thereby supplying a motivation to combine Sharpe with Seese. Reply at 23-24. This is contrary to Petitioner's position in the Petition, where Petitioner only relied on an "anti-virus virtual machine" deployed in the "cloud storage provider environment." Pet. at 53-54. While Petitioner noted that "cloud controller can be implemented as either a virtual machine or as a dedicated physical device," Petitioner presented no similar argument for the "anti-virus service" and relied solely on the cloud-based "anti-virus virtual machine." *Id.* Petitioner's new motivation to combine, based on an alternative embodiment not relied on in the Petition, should not be considered. *See Intelligent Bio-Sys.*, 821 F.3d at 1369–70.

Moreover, even if Petitioner's new motivation to combine is considered, Petitioner ignores Sharpe's lengthy list of "substantial performance benefits" of Sharpe's primary embodiment (hosting the anti-virus service in the cloud storage provider infrastructure), including that having the anti-virus service, cloud controller, and cloud storage system all in "the same datacenter" provides these components with "a very low-latency, high-bandwidth connection" and "facilitat[es]

the rapid transfer of files and scan results.” Ex. 1006 (Sharpe) at 97:56-98:21. The benefits recognized by Sharpe of hosting the anti-virus service in the cloud storage provider infrastructure mirror the drawbacks of moving the anti-virus service out of the cloud storage provider infrastructure identified by Patent Owner. Sharpe is thus in agreement with Patent Owner that there are substantial performance drawbacks to Petitioner’s proposed modification.

The only situation where Sharpe even contemplates possibly moving away from hosting the anti-virus service in the cloud storage provider infrastructure is an alternative embodiment where the cloud controller and anti-virus service “are located at a secure site in close network proximity with the cloud storage system (and have a high-bandwidth link to the cloud storage system).” Ex. 1006 (Sharpe) at 98:26-32. Petitioner asserts in conclusory fashion that Seese’s DLP server is deployed at a “secure site” (Reply at 23) but never alleges that Seese’s network infrastructure with the DLP server is “in close network proximity with” and has “a high-bandwidth link to the cloud storage system,” as required by Sharpe prior to moving the anti-virus service out of the cloud storage provider environment, nor that it would be obvious (or even practicable) to modify Seese’s enterprise network infrastructure to become a specialized “secure site” with a dedicated “high-bandwidth link to the cloud storage system.” Petitioner also presents no analysis that would allow the Board to weigh any alleged benefit of moving Sharpe’s “anti-virus

scan” from Sharpe’s cloud storage provider infrastructure to Seese’s DLP server against the drawbacks identified by Patent Owner and also recognized by Sharpe. *See Arctic Cat*, 795 F. App’x at 833.

Second, Petitioner argues that Patent Owner is somehow “requiring a showing that the references can be bodily incorporated into one another.” Reply at 24. Patent Owner’s argument has nothing to do with bodily incorporation. The defect in Petitioner’s obviousness theory is its failure to identify any motivation to move Sharpe’s anti-virus services 4214 from Sharpe’s cloud storage provider infrastructure to Seese’s enterprise network infrastructure, notwithstanding the drawbacks of this proposed modification.

III. DEPENDENT CLAIMS 8, 19, AND 27 ARE SEPARATELY PATENTABLE

Petitioner’s Reply on dependent claims 8, 19, and 27 mischaracterizes Patent Owner’s arguments and does not cure the gaps in Petitioner’s obviousness theory.

First, Petitioner accuses Patent Owner of failing to address the “combination of prior art references.” Reply at 25. Not so. As explained in the Patent Owner Response, none of the prior art discloses copying a file from a first repository in a cloud file store to a second repository outside that cloud file store. The only reference that allegedly discloses any moving of files is Kamalapuram, and there is no dispute that Kamalapuram “taught or suggested that the first and second repositories were in the same storage system.” Pet. at 75. Petitioner now contends that “Seese

described a repository that formed part of an enterprise network” (Reply at 25), but applying Kamalapuram’s teachings of “moving” files to Seese’ repository that is “part of an enterprise network” results in the files being moved remaining in the same repository (as taught by Kamalapuram), rather than being moved from a public cloud file store to an enterprise network.

Second, Petitioner’s other arguments do not cure the lack of motivation for moving a file from a cloud store to an enterprise network. Originally, Petitioner argued that a POSITA’s selection of the location to which scanned files are copied would be “based on, for example, the importance of the data.” Pet. at 76. In response, Dr. Black pointed out that the same “importance of the data” would lead a POSITA to keep files post-scan in the same data store as pre-scan. Ex. 2004 (Black Suppl. Decl.) ¶ 81. For example, if a file is too important to store in a public cloud store pre-scan, then it would be too important to store in the public cloud store post-scan. *Id.* Now, on reply, Petitioner argues that whether a file is “initially stored in a public cloud file store provides no information about the importance of a file.” Reply at 26. But if a POSITA does not decide where to initially store files based on their importance, then a POSITA would also not decide where to move those files post-scan based on their importance. A POSITA is either motivated to decide file location based on file importance both before and after scanning the file, or in neither instance. Either way, a POSITA would not be motivated to modify the prior art to

copy files from a public cloud data store to an enterprise network, as Petitioner proposes.

IV. DEPENDENT CLAIMS 3, 6, 11, 15, 17, 23, AND 25 ARE SEPARATELY PATENTABLE

Petitioner's Reply asserts that "PO's only rebuttal to this ground ignored Petitioner's explanation motivating the combination of references." Reply at 27. But in support of that argument Petitioner yet again fails to articulate any specific motivation to combine, merely asserting that "Dods supplements the Sharpe-Seese-Kamalapuram combination to improve the combination's malware detection capabilities." Reply at 28. What remains absent from Petitioner's argument is any discussion or explanation of the alleged, unidentified "improve[ments]." Such a generic assertion of some unidentified improvement is insufficient to meet Petitioner's burden of proof.

V. CONCLUSION

Patent Owner respectfully requests that the claims be found not unpatentable.

Date: April 26, 2024

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

I hereby certify that this paper complies with the type-volume limitation of 37 C.F.R. § 42.24 because it contains 5,584 words, excluding the parts of the paper exempted by 37 C.F.R. § 42.24(b).

/s/James M. Glass

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned hereby certify that PATENT OWNER SURREPLY, and all exhibits and other documents filed together with the preliminary response, were served on April 26, 2024 by e-mailing copies to:

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