

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CROWDSTRIKE, INC.,
Petitioner

v.

GOSECURE, INC.,
Patent Owner

Case No. IPR2025-00069
Patent No. 9,106,697

PETITIONER'S REQUEST FOR REHEARING

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Petitioner respectfully requests rehearing of the Decision Denying Institution of *Inter Partes* Review (“Order”). IPR2025-00069, Paper 14 (May 9, 2025).

I. INTRODUCTION

Relevant to the Order is claim 1’s recitation of “a decoy computer system [that] comprises . . . a virtual machine monitor,” and “at the virtual machine monitor: . . . creating . . . a fingerprint.” Ex. 1001, Claim 1. The Board concluded that the virtual machine monitor (“VMM”) must itself create the fingerprint and that it is not sufficient that a fingerprint is generated in the decoy system containing the VMM. Paper 14, 9. The Board agreed with Patent Owner’s (“PO”) argument that (1) the specification describes fingerprint generation inside and outside the VMM, and (2) claim 1’s plain language covers *only the former*¹ (though there is an apparent typographical error on this point in the Order)². *Id.* This conclusion was the sole stated basis for the Board’s decision denying institution. *Id.*

The Board’s interpretation misapprehends the teachings of the ’697 Patent, which contains no support for fingerprint creation inside the VMM. Instead, the specification exclusively describes embodiments in which the fingerprint is created

¹ All emphases added unless otherwise noted.

² The Order appears to have mistakenly stated “latter,” rather than “former.” Paper 14, 9. Petitioner respectfully requests that the Board clarify this point.

outside the VMM. Because the Order turned entirely on this misapprehension of claim scope, rehearing is respectfully requested.

A. Procedural History

Because the intrinsic record describes only fingerprints created outside the VMM and because PO did not accuse any fingerprint-creating VMMs in the parallel litigation, the Petition did not seek to expressly construe the phrase “at the virtual machine monitor.” Instead, it demonstrated that Capalik—a patent application publication with a common inventor—satisfied the claims and even described the same Virtual Machine (“VM”) and VMM as the ’697 Patent using almost verbatim terminology. Paper 1, 22.

PO’s Preliminary Response (“POPR”) argued that “the structure of the claim plainly requires the virtual machine monitor to be involved in creating a fingerprint[.]” Paper 7, 20. PO did not perform any claim construction analysis and did not dispute that the ’697 Patent, like Capalik, discloses creating fingerprints outside the VMM.³ *Id.*, 20-25. PO simply asserted that the phrase “at the virtual machine monitor” demanded excluding any method creating fingerprints outside the VMM. *Id.*, 20.

³ PO statutorily disclaimed claims 19 and 20, which it characterized as not limited to steps performed within the VMM. Paper 7, 19 at fn5.

With the Board's permission, Petitioner filed a Preliminary Reply, which established that excluding the disclosed embodiments was improper. Paper 9, 1-3. Petitioner explained that the '697 Patent's fingerprint generation engine is located outside the VMM in some embodiments and even in a separate machine from the VMM (e.g., where the decoy system is distributed across servers). *Id.*, 2-3.

In its Preliminary Sur-Reply, PO reasserted that creating a fingerprint in the VMM "is what the claims say," further insisting that this is "the plain and ordinary meaning of 'at the virtual machine monitor' . . . [which] should be the end of the matter." Paper 10, 1. PO then characterized Petitioner's position as an attempt to rewrite the claims. *Id.* In that Sur-Reply, PO asserted for the first time that the '697 Patent describes an embodiment in which the fingerprint is created within the VMM. Namely, it pointed to Fig. 2's depiction of the introspection module 120 and argued that it was located within the VMM. *Id.*, 2. The present paper is Petitioner's first opportunity to address PO's incorrect and misleading argument regarding Fig. 2.

At institution, the Board accepted PO's view of the dispute. It held that "the claim's plain language requires creating a fingerprint at the virtual machine monitor, not just at the decoy system" and noted that the patent's specification supported this interpretation. Paper 14, 9. It further suggested that Petitioner was indeed attempting to rewrite the claims: "Petitioner offers no explanation how one skilled in the art

might read ‘at the virtual machine monitor’ to mean at the decoy system, rather than at the virtual machine monitor.” *Id.*

B. Summary Of The Board’s Misapprehension

PO misled the Board by insisting that the functional block diagram in Fig. 2 teaches a fingerprint creating trace analyzer 226 that is located inside the VMM. Paper 10, 2. PO relied entirely on Fig. 2’s illustrations of block 226 within the block labeled as the VMM. In fact, the specification contradicts PO’s interpretation of the figure. It expressly states that the introspection module 120 is not located within the VMM, but is instead “*interposed between*” the VMM and VM. Ex. 1001, 6:33–35. Furthermore, the patent expressly rejects PO’s attempt to treat the functional blocks in Figure 2 as a teaching of physical location. *Id.*, at 8:4–7 (warning that Fig. 2 is “intended to be a functional description of some embodiments rather than a structural description of functional elements in the embodiments”). Figure 2’s introspection module is *not* within the VMM.

Additionally, the Board was misled by PO’s argument that “the claim’s plain language requires creating a fingerprint at the virtual machine monitor, not just at the decoy system.” Paper 14, 9. Interpreted in light of the specification, as the law demands, this conclusion fails to withstand scrutiny. The only instance in which the specification uses the phrase “at the virtual machine monitor” outside the claims refers to method 600. There, the specification states that method 600 is executed “at

the virtual machine monitor,” but many of the described steps within method 600 are performed by components *outside* the VMM. Consistent with the specification’s usage of the phrase, “at the virtual machine monitor” refers to actions performed by the decoy system containing the VMM and is not limited to actions performed by the VMM itself.

II. LEGAL STANDARD

“A party dissatisfied with a decision may file a single request for rehearing” that “specifically identif[ies] all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed in a motion, an opposition, a reply, or a sur-reply.” 37 C.F.R. § 42.71(d).

III. PATENT OWNER MISCHARACTERIZED THE INTRINSIC RECORD AND MISLED THE BOARD

The central issue presented in this rehearing request is whether creating a fingerprint “at the virtual machine monitor” requires the fingerprint to be created (1) within or by the VMM or (2) more broadly, by the decoy system that includes the VMM. The Order adopted interpretation (1), concluding that a disclosed embodiment supports this narrow interpretation and that the plain claim language requires creating a fingerprint in the VMM. Paper 14, 9. In fact, the specification provides no support for interpretation (1). In every embodiment, the fingerprint is created in the decoy system containing the VMM, but *outside* the VMM itself. Furthermore, there is a single instance of the usage of the phrase “at the virtual

machine monitor” in the specification, and this phrase is used to describe functions that occur *outside* the VMM. Regarding the plain language of the claims, the Board erred in concluding that “at the virtual machine monitor” means within or by the VMM, which excludes every disclosed embodiment. Accordingly, neither the plain language of the claims—interpreted consistently with the specification—nor the disclosed embodiments support interpretation (1).

A. No Embodiments Create A Fingerprint In The VMM

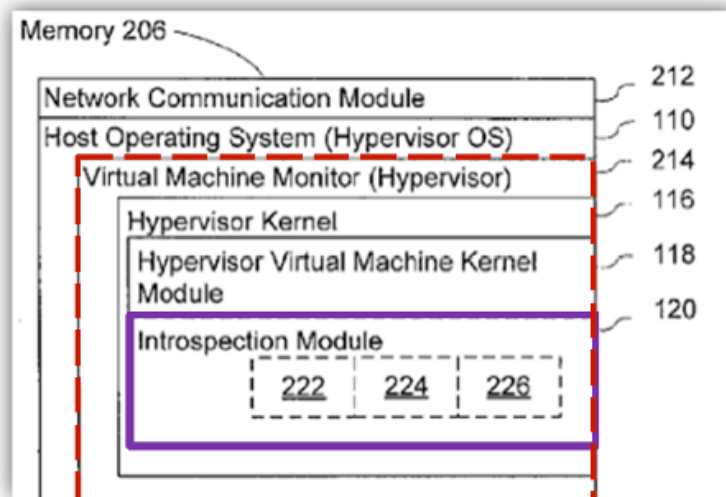
PO does not dispute that the ’697 Patent describes embodiments in which a fingerprint is created *outside* the VMM. Paper 10, 1-2. Instead, PO argues that “the ’697 patent also describes embodiments in which the converse is true” and insists that “[o]nly the latter is claimed.” *Id.* PO is wrong. There are *no embodiments* in which a fingerprint is generated by or in the VMM.

In support of its assertion that the ’697 Patent describes embodiments in which a fingerprint is created inside the VMM, PO points to the patent’s discussion of trace analyzer 226, which can be used to create a fingerprint.⁴ Paper 10, 2 (citing Ex. 1001,

⁴ The ’697 Patent teaches that trace analyzer 226 may be located in the introspection module 120 or “outside the introspection module 120 (e.g., in the fingerprint generation engine 130).” Ex. 1001, 7:2-4. PO’s arguments turn on a trace analyzer located in the introspection module 120, so Petitioner’s request focuses on that implementation.

6:65-7:2). PO cites Figure 2 and argues that the introspection module is 120 “located within” the VMM:

For example, with reference to Figure 2 (reproduced in part below), the specification explains that the “**introspection module**” 120—which is located *within the virtual machine monitor 214*—“generates and retrieves forensic data (or fingerprint).” ’697 patent at 6:65-7:2. More specifically, the “trace analyzer 226” within introspection module 120 “uses the raw attack information to generate a signature of the attack.” *Id.* at 10:13-22.



’697 patent, Fig. 2 (excerpted, annotated)

Id., 2 (emphasis in original). But PO fails to support its assertion in any way. *Id.*

At best, PO appears to rely on Fig. 2’s depiction of introspection module 120 as a functional block within the block labeled Virtual Machine Monitor (Hypervisor) 214. For a number of reasons, this interpretation of the figure is incorrect. First, the ’697 Patent expressly rejects PO’s argument that the introspection module 120 is

physically within VMM 214, stating instead that the “introspection module 120 [is] *interposed between* the virtual machine monitor 214 and decoy operating systems 112.” Ex. 1001, 6:33-35. Second, the patent expressly rejects PO’s implicit assertion that Figure 2 is a structural depiction of the system. The patent expressly states that Figure 2 merely depicts the functional blocks, and is not intended to indicate, structurally, where those functions are performed:

Notwithstanding the discrete blocks in *FIGS. 1 and 2*, these figures *are intended to be a functional description* of some embodiments *rather than a structural description of functional elements* in the embodiments.

Id. at 8:4-7.

Accordingly, PO’s assertion that trace analyzer 226 creates a fingerprint within the VMM finds no support whatsoever in the specification. Instead, as with fingerprint generation engine 130, trace analyzer 226 is *outside* the VMM. PO’s arguments to the contrary mischaracterized the specification, causing the Board to misapprehend the proper scope of the Challenged Claims.

B. Interpreted Consistently With The Specification, “At The Virtual Machine Monitor” Does Not Mean In/By The VMM

The POPR argued that “the structure of the claim plainly requires the virtual machine monitor to be involved in creating a fingerprint[.]” Paper 7, 20. In its Preliminary Sur-Reply, PO reasserted that creating a fingerprint in the VMM “is what the claims say,” further insisting that this is “the plain and ordinary meaning of

‘at the virtual machine monitor’ . . . [which] should be the end of the matter.” Paper 10, 1. PO then characterized Petitioner’s position as an attempt to rewrite the claims. *Id.* (“Petitioner offers no reasoned basis for rewriting “at the virtual machine” to read “by the ... decoy system.”). At institution, the Board accepted PO’s view of the dispute, holding that “the claim’s plain language requires creating a fingerprint at the virtual machine monitor, not just at the decoy system.” Paper 14, 9. It further suggested that Petitioner was indeed attempting to rewrite the claims: “Petitioner offers no explanation how one skilled in the art might read ‘at the virtual machine monitor’ to mean at the decoy system, rather than at the virtual machine monitor.” *Id.*

In the abstract and divorced from the patent specification, it is understandable that the Board interpreted the phrase “at the virtual machine monitor” as language suggesting a function that occurs within the VMM. But patent claims are not read in isolation. Instead, claims “must be read in view of the specification, of which they are a part.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) (en banc) (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995), *aff’d*, 517 U.S. 370 (1996)); *see also Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005) (“We cannot look at the ordinary meaning of the term ... in a vacuum. Rather, we must look at the ordinary meaning in the context of the written description[.]”); *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d

1243, 1250 (Fed. Cir. 1998) (“The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.”).

Read in light of the specification, the phrase “at the virtual machine monitor” in the Challenged Claims does not mandate functionality occurring within the VMM, but rather more broadly captures functionality that occurs at the decoy system containing the VMM. Indeed, the specification uses the phrase “at the [VMM]” only once outside the claims. There, the ’697 Patent refers to method 600 executed “at the virtual machine monitor.” Ex. 1001, 14:30-41. As set forth below, method 600 includes numerous steps that are not performed by the VMM, but are instead performed in the decoy device containing the VMM. Accordingly, Petitioner did not seek to rewrite the claims, as PO insists, and the Board seems to have accepted. Instead, Petitioner applied the plain meaning of the claim language in a manner consistent with the meaning ascribed to the language in the specification.

i. The specification’s sole use of “at the virtual machine monitor” captures functionalities performed outside the VMM

The only instance of “at the virtual machine monitor” outside the claims appears in reference to method 600, which is depicted in Figs. 6A-6C:

FIGS. 6A-6C are flowcharts representing a method 600 of identifying unauthorized activities on a computer system (e.g., the virtual machine 113-1) attached to a computer network, in accordance with some embodiments. ***The computer-implemented method 600 is performed***

at a decoy network device (e.g., 106 in FIG. 1B) *having one or more processors* and memory storing a virtual machine and a virtual machine monitor supervising the virtual machine. The memory also stores one or more programs for execution by the one or more processors to perform the method. *Typically, the one or more programs⁵ executed by the one or more processors to perform the method are executed at the virtual machine monitor.*

Ex. 1001, 14:30-41. In its Preliminary Sur-Reply, PO quotes this passage and notes that step 636 in Figure 6C is directed to creating a fingerprint/signature. Paper 10, 3. PO argues that Petitioner's argument "ignores th[is] clear intrinsic support for" interpreting the claims narrowly to require creating a signature in the VMM. *Id.* In other words, PO insists that the '697 Patent uses the phrase "at the virtual machine monitor" to mean that all steps of method 600, including step 636's fingerprint/signature creation, are performed by/in the VMM.

In fact, this portion of the specification contradicts, rather than supports, PO's position. As an initial matter, the quoted passage above characterizes method 600 as performed both "at the decoy network device" and "at the virtual machine monitor"

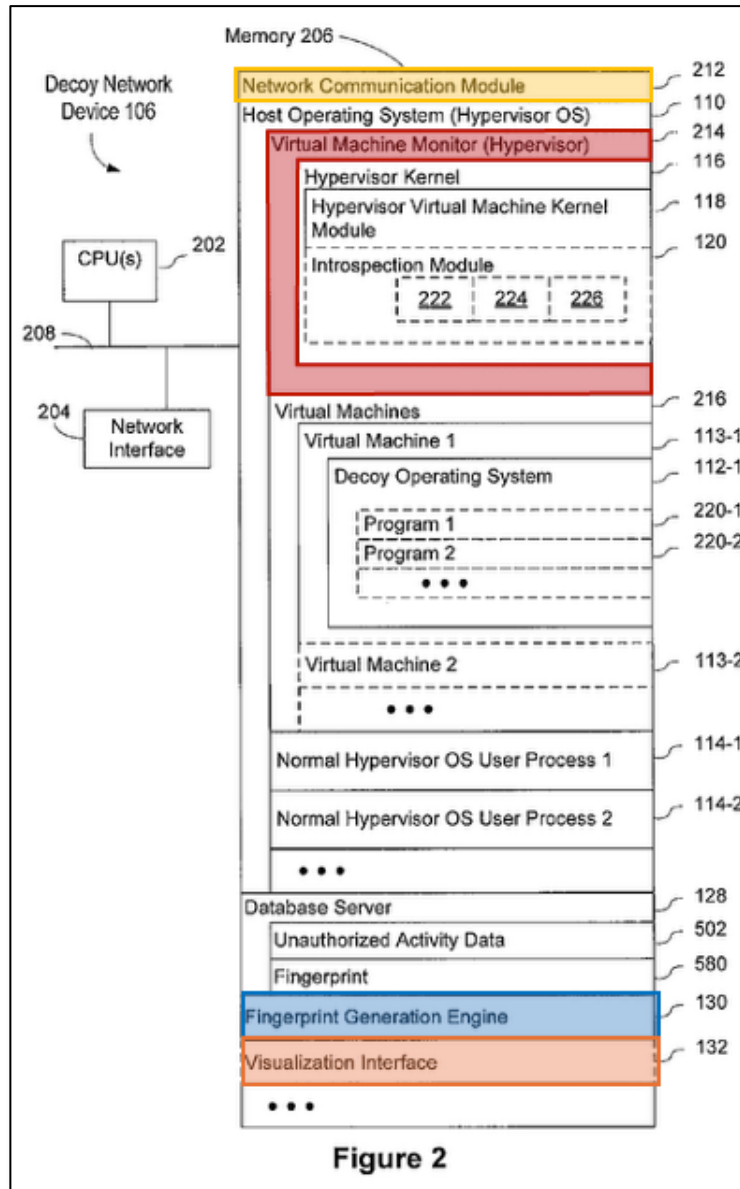
⁵ The specification describes the individual components of method 600 as steps performed by programs executing instructions. *See, e.g.*, Ex. 1001, 2:39-62 (teaching that the "one or more programs . . . include instructions for creating a fingerprint[, . . . instructions for transmitting the fingerprint[, and] . . . instructions for displaying at least a subset of the activities").

within the decoy network device, which is somewhat ambiguous but at least suggests that these phrases are similar in scope. The subsequent descriptions of the specific method steps comprising method 600 confirm, however, that “at the virtual machine monitor” encompasses method steps that are not performed within or by the VMM. Ex. 1001, 16:26-29, 17:33-35, 18:5-12, Figs. 6A–6C. For example, as set forth in Section III.A, there is no support in the specification for creating a fingerprint/signature within the VMM. Accordingly, when step 636’s fingerprint/signature creation is performed “at the virtual machine monitor,” the patent is not describing a creation that occurs within the VMM. Instead, as made clear in the context of method 600, the fingerprint is created by the decoy device containing the VMM. *Id.*, 17:33-35 (“***The decoy network device creates (636) a fingerprint*** indicative of the activity on the virtual machine from the stored activities.”).

Similarly, method 600 depicted in Figures 6A–6C includes both a ***transmitting***⁶ step (Fig. 6C, step 644) and a ***graphically displaying*** step (Fig. 6B,

⁶ In addition to creating a fingerprint at the VMM, Claim 1 also recites “transmitting the fingerprint” at the VMM. Tellingly, PO has not challenged Petitioner’s mapping of Capalik’s teachings to this transmitting step. Nor could it reasonably argue that the ’697 Patent provides support for fingerprint transmission by the VMM. Indeed, the POPR noted that the decoy device transmits the fingerprint without stating or suggesting that the VMM is involved in any way. Paper 7, 11.

step 626). *Id.*, 16:26-29, 18:5-12. Neither of these method steps are performed within or by the VMM. Instead, both are unequivocally performed by components ***outside*** the VMM. As explained in the specification and depicted in Figure 2 below, the decoy network device 106 includes a (1) the network communication module (or instructions) 212 [annotated yellow] that is used for connecting the decoy network device 106 to computer networks and (2) “visualization interface 132 [annotated orange], which prepares data (e.g., the fingerprint or unauthorized activities on the computer system) for display (e.g., on a GUI of a client 101).” *Id.*, 5:48-58, 6:1-3.



Id., Fig. 2 (annotated).

As discussed in Section III.A, while Figure 2 is not intended to be “a structural description of functional elements” (*id.*, 8:4-7), PO implicitly concedes—and certainly does not dispute—that functional blocks in the figure illustrated outside the VMM represent functions that are *not* performed within or by the VMM. *See* Paper 10, 1-2. There is certainly no suggestion in the ‘697 Patent that network

communication or visualizations/display are functions occurring within the VMM. Accordingly, construed in light of the specification, as the law demands, “at the virtual machine monitor” in Claim 1 encompasses method steps that are performed within the decoy device containing the VMM, but not necessarily within or by the VMM itself.

IV. CONCLUSION

PO’s Preliminary Sur-Reply mischaracterized the intrinsic evidence and misled the Board. Without an opportunity for Petitioner to respond and correct the record following the sur-reply, the Board misapprehended the intrinsic evidence and adopted an incorrect and unsupported construction of the claim language. As set forth herein, the claim language understood in light of the specification confirms the claimed fingerprint is created by the decoy system containing the VMM; the patent includes no support at all for narrowly demanding a fingerprint created within or by the VMM. Because this was the sole basis for denying institution, Petitioner respectfully requests rehearing and asks that IPR be instituted.

Respectfully submitted,

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COUNSEL FOR PETITIONER

**CERTIFICATE OF SERVICE ON PATENT OWNER
UNDER 37 C.F.R. § 42.105**

Pursuant to 37 C.F.R. §§ 42.6(e) and 42.105, the undersigned certifies that on June 5th, 2025, a true and correct copy of the foregoing Petitioner's Request for Rehearing was served electronically on counsel for Patent Owner at the following address:

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