

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BMW OF NORTH AMERICA, LLC,

Petitioner,

v.

FORAS TECHNOLOGIES LTD.,

Patent Owner.

Case IPR2024-01346
U.S. Patent 7,627,781

PATENT OWNER’S SUR-REPLY TO PETITIONER’S REPLY

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Patent Trial and Appeal Board
U.S. Patent and Trademark Office
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I. Introduction

Patent Owner requests that the Board find all of Petitioner's challenges to the claims of U.S. Patent No. 7,627,781 ("the '781 patent") without merit as neither Paper 1, Petition nor Paper 14, Petitioner's Reply, ("Reply") establish that claims 1-30 are unpatentable for the reasons set forth in Paper 11, Patent Owner's Response, ("POR") and below.

Petitioner's first contention in the Reply, that Petitioner's Statement of Facts remains undisputed, is facially incorrect and Petitioner notably does not address the reasoning behind any of Patent Owner's particularized rebuttals. *See* Paper 14, Reply, 1-2; Paper 11, POR, 3-6. Petitioner's second reply contention, that Patent Owner misconstrues transferring the role of the boot processor, fails because, as established in the Patent Owner's Response and below, Patent Owner does not ignore the primary function of a boot processor and correctly construes transferring the role of the boot processor to the spare processor during runtime. *See* Paper 14, Reply, 2-8; Paper 11, POR, 7-11.

Petitioner's third reply contention fails because, as established in the Patent Owner's Response and below, Fox, which is devoid of any disclosure, teaching or suggestion of a boot processor, neither discloses nor renders obvious assigning a role of boot processor. *See* Paper 14, Reply, 8-13; Paper 11, POR, 7-11. Petitioner's

fourth reply contention, that Ground 2 renders obvious assigning a role of boot processor, fails because, as established in the Patent Owner's Response and below, Ground 2 does not render obvious assigning a role of boot processor for the same reasons Ground 1 does not render obvious assigning the role of boot processor and, as stated in the POR, the logical identification of the boot processor stored in Fox's register or table (in RAM) will not have any impact on which processor performs the role of boot processor. *See* Paper 14, Reply, 8-13; Paper 11, POR, 16-17.

Petitioner's fifth reply contention, that Ground 2 renders obvious transferring the role of boot processor to the spare processor, fails because, as established in the Patent Owner's Response and below, Ground 2 does not render obvious transferring the role of boot processor to the spare processor for the same reasons Ground 1 does not render obvious transferring the role of boot processor. Moreover, as stated in the POR, Landry only discloses assigning processor roles before system runtime and the designation of a boot processor would not be retained when the system is rebooted. *See* Paper 11, Reply, 13-14; Paper 12, POR, 18-19. Petitioner's sixth reply contention, that dependent claim 2 is rendered obvious by Grounds 1 and 2, fails because, as established in the Patent Owner's Response and below, neither Ground 1 nor Ground 2 renders obvious dependent claim 2's limitation of non-volatile data

storage.¹ *See* Paper 14, Reply, 14-16; Paper 11, POR, 11-14, 19.

Petitioner's seventh reply contention that dependent claim 14 is rendered obvious by Grounds 1 and 2 fails because, as established in the Patent Owner's Response and below, neither Ground 1 nor Ground 2 renders obvious dependent claim 14's limitation of identifying the spare processor as an active spare.² *See* Paper 14, Reply, 16-18; Paper 11, POR, 14-16, 20. Fox discloses a hot spare but does not disclose, teach or suggest an active spare. Paper 11, POR, 11-14, 19.

Petitioner's eighth reply contention, that independent claims 9, 16 and 25 and dependent claims 3-8, 10-13, 5, 17-24 and 26-30 are unpatentable, is a conclusory assertion that disregards Petitioner's own reliance on its previous arguments made for claim 1 and Patent Owner's particularized linking to those arguments. *See* Paper 14, Reply, 18; Paper 11, POR, 19-21. Petitioner's ninth reply contention, that Mr.

¹ Petitioner's assertion that Patent Owner does not dispute claim 10, (Paper 14, Reply, 15 n.1), is incorrect because Patent Owner did dispute claim 10 in the Patent Owner Response. *See* Paper 11, POR, 20.

² Petitioner's assertion that Patent Owner does not dispute claims 6 and 23, (Paper 14, Reply, 16 n.2), is incorrect because Patent Owner did dispute claims 6 and 23 in the Patent Owner Response. *See* Paper 11, POR, 20.

Jones's testimony should be given little weight, should be rejected because, as discussed below, Petitioner's contention is contradicted by Mr. Jones's sworn deposition testimony and declaration and are further premised, at least in part, on Petitioner's erroneous understanding of what the role of a boot processor is and Petitioner's efforts to identify the role of a boot processor without reference to the boot process.

II. Challenged Claims

In Ground 1, Petitioner challenges patentability of claims 1-2, 5-7, 9-18, 22-23, 25-26, and 29-30 of the '781 patent based on Fox in view of Safford and Arai. Petitioner challenges the same set of claims under Ground 2 based on Fox in view of Safford, Landry, and Arai. In Ground 3, Petitioner challenges claims 3-4, 19-21, and 27-28 in view of Safford, Arai, and Jin. Petitioner challenges the same set of claims under Ground 4 based on Fox in view of Safford, Landry, Arai, and Jin. In Ground 5, Petitioner challenges claims 8 and 24 based on Fox in view of Safford, Arai, and Bigbee. And under Ground 6, Petitioner challenges claims 8 and 24 based on Fox in view of Safford, Landry, Arai, and Bigbee.

III. Petitioner's Material Facts Were and Are Disputed and Should not be Deemed Admitted.

As noted above, Petitioner's assertion that the statement of fact remains undisputed (Paper 14, Reply, 1-2) is facially incorrect. Petitioner admits that Patent

Owner denied Nos. 2, 3, 6, and 8 and asserted that Nos. 4, 7, and 9 cannot be admitted or denied. *Id.* Petitioner's complaints ignore Patent Owner's citations to contrary record evidence and Patent Owner's still undisputed particularized assertions where the prior art cited by Petitioner does not support Petitioner's alleged fact. Those are, in fact, supported by the evidence. *See* Paper 11, POR, 3-5.

IV. Patent Owner correctly construes transferring the role of the boot processor to the spare processor during system runtime.

Petitioner's second reply contention, that Patent Owner misconstrues transferring the role of the boot processor, fails. As established in the Patent Owner's Response, and unlike Petitioner, Patent Owner does not ignore the primary function of a boot processor and correctly construes transferring the role of the boot processor to the spare processor during runtime. *See* Paper 11, POR, 9-11. Petitioner apparently contends that the role of the boot processor when the system is booting ("performing system initialization and booting the operating system during the boot process") is not relevant to the role of the boot processor. Paper 14, Reply, 3. Petitioner appears to be making a counterintuitive argument that the role of the boot processor should be construed without regard to the boot processor's role when the system is booting, an argument that this Board should reject.

Petitioner's argument that the transferring the role of the boot processor during system runtime renders the role of the boot processor when the system boots

irrelevant, *id.*, Reply, 3-4, was thoroughly refuted in the Patent Owner Response. Paper 11, POR, 10-11. For example, and as noted in the POR, the '781 specification discloses that changes to processor roles can change settings in NVRAM that are "honored on the next reset." EX1001, '781 Patent, 14:4-31. Petitioner does not seem to understand that there is nothing about requiring the boot transfer role to persist through a reset that is inconsistent with a processor performing whatever other boot processor functions exist, in stark contrast to Petitioner's proposal that would effectively nullify any transfer before the transferred boot processor could perform its primary role as a boot processor.

Petitioner's recitation of additional steps, Paper 14, 5-6, does not refute Patent Owner's argument that updating the status is a separate step from transferring the role. As noted in the POR, the '781 Patent specification teaches in column 17, lines 45-55 that "the firmware assigns active spare processor the role of boot processor" and "the firmware updates the device tree to identify the active spare as the boot processor, and performs any other configuration changes (e.g., changing the LID of the active spare, etc.) to cause the OS to recognize the active spare as the boot processor," which demonstrates that assigning the **role of boot processor** is more than merely: (1) copying the **state of the boot processor** into the spare, (2) updating the **device tree** to identify the spare as the boot processor, or (3) changing the **LID**

of the spare processor. Paper 11, POR, 11.

Petitioner, apparently not understanding “for example,” wrongly contends that Patent Owner confused a boot device with a boot processor. Paper 14, Reply, 7. Patent Owner simply noted that the '781 Patent teaches how boot information, such as the boot device path, can be persistently stored for the next time the system reboots, Paper 11, POR, 13-14. Neither Patent Owner nor Mr. Jones conflated a boot device and a boot processor. Rather, what was pointed out was that the '781 Patent specification describes a specific approach by which a persistent identifier used during the boot process is changed without shutting down the operating system, including, for example, an embodiment where “commands for assigning the boot processor and/or spare processor” are pushed “into NVRAM so they will be honored on the next reset.” *Id.*, 14 (citing Ex. 1001, '781 Patent, 14:4-32).

V. Fox, which does not disclose a boot processor, does not disclose or render obvious assigning a role of boot processor.

Petitioner's contention that Fox discloses or renders obvious assigning a role of boot processor cannot be sustained in the absence of any disclosure, teaching or suggestion of a boot processor in Fox. Petitioner's attempted reliance on unsubstantiated and facially inapt documents cannot cure this fundamental deficiency in Fox. *See* Paper 14, Reply, 8-13; Paper 11, POR, 7-11. The fundamental problem with Petitioner's arguments is that neither Ex. 1008, “IA-32,”

nor Ex. 1028, “MP Specification” are verifiable as the documents Petitioner contends they are or, even if they are, that they would have been publicly accessible and part of the knowledge of a POSITA.

Neither Petitioner nor Dr. Brogioli have present any evidence that a POSITA would have been aware of Exhibit 1008 at the time of the invention of the '781 patent or that *the* nearly 800 pages contained within Exhibit 1008 would have been part of the background knowledge in the art. Nor has Petitioner presented any evidence that a POSITA reading Fox would have looked to Exhibit 1008 to understand any disclosure in Fox, other than the presumably coincidental inclusion of the phrase “IA-32” in both Fox and Exhibit 1008. The disclosures in Exhibit 1008 relating to a BSP flag are insufficient to demonstrate obviousness of a claim limitation at the time of the invention of the '781 patent.

The Petition is similarly deficient with respect to Exhibit 1028, which Petitioner refers to as “MP Specification.” The “MP Specification” is a multi-colored document in which some of the text is *blue* and some of the text is black. When Dr. Brogioli was asked “how do you interpret the fact that several of the entries in this table are written in blue font instead of black?” he responded that “it looks like this is the actively drafted version.” Exhibit 2006, Brogioli Dep. Tr., 34:10-35:9. Dr. Brogioli's rank speculation that the admitted draft version of Exhibit

1028 was “made available” is uncorroborated and based on unsupported speculation regarding “various versions of these types of documents.” *Id.*, 36:1-20. Petitioner presents no evidence that Exhibit 1028 was ever publicly accessible. For these reasons the Board should give Petitioner’s reliance on Exhibits 1008 and 1028 no weight.

Petitioner’s efforts to counter Patent Owner’s assertion of circular reasoning are conclusory and further demonstrate the deficiencies of Fox’s disclosure. Petitioner asserts that the IA-32 system would have designated one of the processors as a boot processor without ever showing what in the purported IA-32 system would have designated a boot processor. Paper 14, Reply, 12.

VI. Ground 2 does not render obvious assigning a role of boot processor.

Ground 2 does not render obvious assigning a role of boot processor for the same reasons that Ground 1 does not render obvious assigning the role of boot processor. Paper 11, POR, 17. Whether a boot processor has a logical identifier of CPU0 is immaterial because Petitioner has not shown that the “identification and software tags” stored in Fox’s register or table (in RAM) have any impact on which processor performs the role of boot processor. *Id.*

A cursory review of Patent Owner’s Response shows that, contrary to Petitioner’s assertion, (Paper 14, Reply, 13), Patent Owner does dispute that Fox

combined with Landry renders obvious assigning a role of boot processor to one of the processors. Paper 11, POR, 17.

VII. Ground 2 does not render obvious transferring the role of boot processor to the spare processor.

Ground 2 does not render obvious transferring the role of boot processor to the spare processor, as established in the Patent Owner's Response, for at least the same reasons Ground 1 does not render obvious transferring the role of boot processor. Petitioner apparently concedes that Patent Owner is correct that Landry only discloses assigning processor roles before system runtime and not during system runtime. Paper 14, Reply, 14. But Petitioner's additional are based upon flawed premises and must be rejected. The combination of Fox and Landry does not render obvious assigning the boot processor role (irrespective of logical CPU0) to one of the processors for the reasons stated above and in the Patent Owner Response and the combination of Fox, Landry, Safford and Arai does not render obvious transferring the role of the boot processor (irrespective of logical CPU0) to the spare processor during runtime for the reasons stated above and in the Patent Owner Response. *See, e.g.*, Paper 11, POR, 6-11, 16-19.

VIII. Grounds 1 and 2 do not render obvious dependent claim 2.

Dependent claim 2 is not rendered obvious by Grounds 1 and 2 because, at a minimum, independent claim 1 is not rendered obvious by Ground 1 or 2. If an

independent claim is nonobvious, then the dependent claim is also nonobvious. *In re Fine*, 837 F.2d 1071, 1076 (Fed. Cir. 1988) (“A claim that depends from a non-obvious independent claim is non-obvious because it contains all the limitations of the independent claim, plus a further limitation.”). The Board does not need to consider “arguments that certain dependent claim limitations would have been obvious where the base claim has not been proven invalid.” *SynQor, Inc. v. Artesyn Techs., Inc.*, 709 F.3d 1365, 1375 (Fed. Cir. 2013).

Irrespective of Petitioner's inability to establish that independent claim 1 is unpatentable, neither Ground 1 nor Ground 2 renders obvious the limitation of non-volatile data storage recited in claim 2. Notwithstanding Petitioner's contrary assertion, Petitioner's proposed combinations do not disclose, teach or suggest storing processor information in Fox's allegedly non-volatile system memory. Paper 14, Reply, 15. As discussed in detail in the Patent Owner Response with respect to Ground 1, the alleged “data storage” in the Fox-Arai combination is RAM, which is volatile memory. Paper 11, POR, 11-14.

The storage location of the BIOS is irrelevant to the “*data storage storing information*” limitation because the BIOS is not the alleged “*information*” in claim 1. In the alleged Fox-Arai combination, the register or table are **created by** the BIOS and stored in volatile RAM. Paper 1, Petition, 23 (“Arai discloses that during system

initialization, the BIOS creates a table (e.g., ACPI table or MP table) that identifies each processor in the system and its designated operational state, i.e., active or disabled. Arai discloses this the table is stored in main memory ('data storage').").

Petitioner's expert, Dr. Brogioli, confirmed that in both Arai and the Fox-Arai combination, the identified table or register is stored in RAM. Exhibit 2006, Brogioli Dep, Tr., 111:12-112:12 ("That's what's happening in the combination is, just as Arai says in paragraph 21 . . . that the BIOS goes and creates a table in that main memory during the start-up in the RAM. So, the BIOS is coming out of this read only memory, running and creating the table in the RAM here."); 103:14-21, 108:10:10-109:4, 110:4-11.

Petitioner's contention that a POSITA would have understood that RAM is non-volatile memory is unsupported and inconsistent with Dr. Brogioli's declaration identifying ROM or EEPROM as non-volatile memory. Exhibit 1002, Brogioli Decl., ¶¶ 52, 198. Petitioner's contention is also inconsistent with the fact that NVRAM specifically calls out that the memory is Non-Volatile. The '781 Patent's discussion of Scratch RAM (SRAM) is further evidence that a POSITA would understand the RAM is volatile. *See, e.g.,* Ex. 1001, '781 Patent, 12:60-61.

Even if the BIOS in the Fox-Arai combination is itself stored in non-volatile memory, the table or register allegedly comprising "*data storage storing information*

that assigns a role of boot processor” is expressly stored in volatile memory, and there is no disclosure that such information is stored elsewhere. Contrary to Petitioner's assertion, Dr. Brogioli's opinion regarding Fox's purportedly non-volatile system memory, (Paper 11, Reply, 15), is disputed. Petitioner has not shown that the Fox-Arai combination discloses or renders obvious “*data storage storing information that assigns a role of boot processor*” (claim 1) “*wherein said data storage is non-volatile data storage*” (claim 2).

Petitioner's contention that Patent Owner does not dispute claim 10, (Paper 14, Reply, 15 n.1), is incorrect because Patent Owner did dispute claim 10 in the Patent Owner Response. *See* Paper 11, POR, 20.

IX. Dependent claim 14 is not rendered obvious by Ground 1 or Ground 2.

Neither Ground 1 nor Ground 2 renders obvious dependent claim 14's limitation of identifying the spare processor as an active spare.³ *See* Paper 14, Reply, 16-18; Paper 11, POR, 14-16, 20. Fox discloses a hot spare but does not disclose, teach or suggest an active spare. Paper 11, POR, 11-14, 19.

³ Petitioner's assertion that Patent Owner does not dispute claims 6 and 23, (Paper 14, Reply, 16 n.2), is incorrect because Patent Owner did dispute claims 6 and 23 in the Patent Owner Response. *See* Paper 11, POR, 20.

Fox discloses that “[t]he spare processor remains hidden until one of the primary processors fails and the spare processor is needed to replace the failing processor.” Exhibit 1005, Fox, [0037]. Fox teaches that its “invention provides a method for hot swap spare processors without the need of processor architecture changes, ...”. *Id.*, [0047], and its claims recite that “the processing load of the failing processor is automatically sent to the spare processor for processing.” *Id.*, claim 1, claim 12.

A POSITA would also understand that Fox does not teach idling an active spare processor. Fox only teaches idling a failing processor. “Implementation of the invention [of Fox] involves the utilization of Systems Management Interrupt (SMI) functionality provided within basic input output system (BIOS) of the IA-32 systems” and “[w]hen a processor failure is detected, SMI code running on a good processor instructs the OS to hold off allocating processes to the failing processor.” Exhibit 1005, Fox, [0040]. “The SMI is generated by hardware during various processor failure conditions.” *Id.*, [0041]. Fox does not disclose, teach or suggest using the SMI to idle a processor that is not failing, such as an active spare processor.

Fox’s disclosure of a processor in an idle state is insufficient to render obvious an “active spare.” Moreover, Petitioner does not address Dr. Brogioli’s apparent confusion regarding the difference between a “hot spare” and an “active spare.”

4 Q. So are you saying that that
5 processor is **still** a hot-spare processor and
6 now that it's been added to the active list
7 is **also** an active spare?

8 A. That seems to me the language
9 that Fox is using.

10 Q. Is that your understanding of
11 Fox?

12 A. Yeah. That's what he is saying
13 and that is why these sequences of
14 paragraphs are what show both -- taking us
15 back to my declaration -- what is both
16 dependent claim 13 and dependent claim 14.

Ex. 2007, Brogioli Dep. Tr., 78:4-16 (emphasis added). *See also id.*, 62:7-78:3.

Dr. Brogioli's sworn testimony is inconsistent with the claim language, which recites that the identification of the "*active spare*" is done "*during system boot-up*." Petitioner has failed to show that Fox's "hot spare" is an "*active spare*" as recited in claim 14, because Petitioner points to no disclosure in Fox where, during system boot-up, the system firmware identifies a processor as a spare processor and, during system boot-up, places that processor on the active list.

X. Patent Owner did address independent claims 9, 16, and 25 and dependent claims 3-8, 10-13, 15, 17-24, and 26-30 and those claims are not unpatentable.

Petitioner's conclusory assertion that independent claims 9, 16 and 25 and dependent claims 3-8, 10-13, 15, 17-24 and 26-30 are unpatentable because Patent Owner did not address those claims is erroneous. *See* Paper 14, Reply, 18; Paper 11, POR, 19-21.

With respect to the independent claims, Patent Owner argued as follows after noting that Petitioner largely repeated the arguments presented as to claim 1.

As to claim limitation [9c], "*responsive to detecting loss of lockstep for said boot processor, changing, during system runtime, the assignment of the role of boot processor to said spare processor;*" Petitioner alleges obviousness for the same reasons explained in Grounds 1 and 2 for limitation [1c]. Accordingly, this argument fails for the same reasons previously provided for Grounds 1 and 2 as to limitation [1c].

As to limitation [16d], "*data storage storing information that assigns a role of boot processor to one of said plurality of processors and assigns a role of spare processor to another of said plurality of processors;*" Petitioner relies entirely on its prior arguments in Grounds 1 and 2 for limitation [1b]. These arguments fail for the same reasons previously provided for Grounds 1 and 2 as to limitation [1b].

As to limitation [25f], “responsive to detecting loss of lockstep for said boot processor, said system causing said spare processor to dynamically assume the role of boot processor,” Petitioner alleges obviousness for the same reasons set forth with respect to limitation [1c] in Grounds 1 and 2. Accordingly, this argument fails for the same reasons previously provided for Grounds 1 and 2 as to limitation [1c].

Because Petitioner has not shown any of the independent claims of the '781 patent is obvious under Grounds 1 or 2, its challenge to dependent claims 2, 5-7, 10-18, 22-23, 26, and 29-30 must also fail. In addition, Petitioner makes no independent argument for claim 14 under Ground 2, so that claim is non-obvious for the same reasons addressed above as to claim 14 under Ground 1. Paper 11, POR, 19-20.

Patent Owner also noted that Petitioner's challenges under Grounds 3 and 4 to dependent claims 3-4, 19-21, and 27-28 fail for the same reasons provided above for independent claims 1, 16, and 25, on which they depend. Petitioner presents no independent analysis of the limitations of independent claims 1, 16, or 25 for either Ground 3 or 4. *Id.*, 21. Patent Owner further noted that Petitioner's challenges under Grounds 5 and 6 to dependent claims 8 and 24 fail for the same reasons provided *above* for independent claims 1 and 16, on which they, respectively, depend. Petitioner presents no independent analysis of the limitations of independent claims 1 and 16 for either Ground 5 or 6. *Id.*

XI. This Board should consider Mr. Jones's testimony dispositive.

Petitioner's contentions that Mr. Jones's testimony lacks sufficient factual basis and does not reflect the knowledge and skill of a POSITA, (Paper 15, Reply, 22-24), are contrary to Mr. Jones's sworn deposition testimony and declaration.

Petitioner's first objection, that Mr. Jones improperly interprets a boot processor as the processor used to "boot," (*Id.*, 23), simply reflects Petitioner's efforts to nonsensically separate a "boot processor" from the process of booting. Petitioner's second objection, that Mr. Jones assumed that a "boot device" is a "boot processor," *id.*, reflects Petitioner's failure to understand that "for example" refers to the approach of persistent storage of configuration data in non-volatile memory as shown in the citations to the '302 patent in paragraph 32 of Mr. Jones's Declaration.

Petitioner's second objection, that Mr. Jones's testimony does not reflect a POSITA, cannot be reconciled with Mr. Jones's extensive deposition testimony of forty (40) years of experience designing complex electronic systems, including strip chart recorders, PID controllers, electromechanical systems, life-support systems, control systems, smart batteries, microwave telecommunication links, a networking card, an encrypted circuit board manufacturing line, a near-infrared moisture gauge, electromagnetic and radiofrequency-based cable system detectors, etc. Ex. 1007,

Jones Dep. Tr., 21:20-23:21.

Petitioner's third objection, that Mr. Jones considered the documents cited in his declaration and the Petition itself, (Paper 15, Reply, 24) is not an indictment against Mr. Jones as he fully explained the bases for his opinions in his declaration. *See, e.g.*, Ex. 2004, ¶¶ 31-39; 42-44; 48-51; 55.

Petitioner's fourth objection, that Petitioner disagrees with Mr. Jones's testimony, (Paper 15, Reply, 24), appears premised on incomplete citations to Mr. Jones's testimony. For example, Mr. Jones testified that:

17 The word 'processor'
18 appears over 350 times in Fox. Not once is it
19 qualified with the word 'boot.' In fact, booting
20 isn't even really mentioned in Fox. And so I
21 think someone reading Fox would conclude that how
22 the system is booted is irrelevant to what Fox is
1 claiming is his invention.

Ex. 1007, Jones Dep. Tr., 81:17-82:2. Mr. Jones also testified that:

13 A person of ordinary skill in the art
14 wouldn't have to know what a boot processor is,
15 because the specification for the '302 lays out
16. what a boot processor is. And so whether there's
17. a person of ordinary skill in the art that has a

18. different definition, a narrower or broader, I
19 obviously cannot comment. But the '302
20 specification, as I cite here in my declaration at
21 Paragraph 33, does give a description on what a
22 boot processor is.

Ex. 1007, Jones Dep. Tr., 69:13-22. Mr. Jones also testified that, because the specification of the '302 Patent spells out what a boot processor is at column 12, lines 1 through 21, what is relevant to the patentability of the '302 Patent claims is that definition in the '302 Patent. *Id.*, 74:13-75:1.

Accordingly, Mr. Jones's sworn testimony is not based on only a small subset of the record and is, as apparent from his declaration, based on cited admissible facts from the perspective of a POSITA and Petitioner's contrary assertions are belied by the sworn testimony on the record and should be disregarded.

XII. Conclusion

Petitioner has failed to meet its burden of establishing that the Challenged Claims are unpatentable, and the Petition should be denied for all claims.

Dated: October 24, 2025

Respectfully submitted,

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CERTIFICATE OF WORD COUNT (37 C.F.R. § 42.24(d))

The undersigned hereby certifies that the word count in this Patent Owner's Sur-Reply is 4,479, as counted by the word-processing program Microsoft Word that was used to generate this Patent Owner's Sur-Reply, where such word count excludes the table of contents, table of authorities, mandatory notices, certificate of service, appendix of exhibits, claim listing, and this certificate of word count. This Patent Owner Sur-Reply is in compliance with the 5,600-word limit set forth in 37 C.F.R. § 42.24(c)(4).

Date: October 24, 2025

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CERTIFICATE OF SERVICE (37 C.F.R. § 42.6(e))

The undersigned hereby certifies that the above document was served on October 24, 2025, by filing this document through the Patent Trial and Appeal Case Tracking System as well as delivering a copy via electronic mail upon the following attorneys of record for the Petitioner:

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