

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,

Petitioner,

v.

DH INTERNATIONAL LTD.,

Patent Owner.

PTAB Case No. IPR2025-00173

Patent No. 7,628,333

**PATENT OWNER'S PRELIMINARY RESPONSE
UNDER 35 U.S.C. § 42.107**

April 15, 2024

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TABLE OF EXHIBITS

Exhibit	Title
1001	U.S. Patent No. 7,628,333 to Gaillard <i>et al.</i> (“333 Patent”)
1002	Prosecution History of U.S. Application No. 10/552,912 (“333 Prosecution History”)
1003	Declaration of Michael Buehrer (“Buehrer”)
1004	U.S. Patent Publication No. 2002/0180584 to McGregor <i>et al.</i> (“McGregor”)
1005	U.S. Patent Publication No. 2003/0226041 to Palmer <i>et al.</i> (“Palmer”)
1006	U.S. Patent No. 6,078,791 to Tuttle <i>et al.</i> (“Tuttle”)
1007	<i>Intentionally left blank</i>
1008	U.S. Patent Publication No. 2002/0116330 to Hed <i>et al.</i> (“Hed”)
1009	U.S. Patent No. 5,690,773 to Fidalgo <i>et al.</i> (“Fidalgo”)
1010	U.S. Patent No. 5,767,503 to Gloton (“Gloton”)
1011	U.S. Patent No. 6,097,292 to Kelly <i>et al.</i> (“Kelly”)
1012	U.S. Patent No. 6,375,082 to Kobayashi <i>et al.</i> (“Kobayashi”)
1013	U.S. Patent No. 5,748,737 to Daggar (“Daggar”)
1014	U.S. Patent No. 6,704,608 to Azuma (“Azuma”)
1015	U.S. Patent No. 5,280,527 to Gullman <i>et al.</i> (“Gullman”)
1016	U.S. Patent No. 6,631,849 to Blossom (“Blossom”)
1017	U.S. Patent Publication No. 2002/0095587 to Doyle <i>et al.</i>

	(<i>“Doyle”</i>)
1018	U.S. Patent Publication No. 2002/0038369 to Sung <i>et al.</i> (<i>“Sung”</i>)
2001	Declaration of Safwan Zaheer
2002	Litigation Tolling Agreement

I. INTRODUCTION

Patent Owner DH International Ltd. (“DHI” or “Patent Owner”) submits the following Patent Owner Preliminary Response (“POPR”) pursuant to 37 C.F.R. § 42.107(a). *See also* 37 C.F.R. § 42.107(b). Petitioner Apple Inc. (“Apple” or “Petitioner”) filed a Petition for *Inter Partes* Review of U.S. Patent No. 7,628,333 (the ‘333 Patent”) on December 3, 2024. (IPR2025-00173, Paper No. 1 (“Petition”)).

Patent Owner respectfully requests that the Board deny institution of *Inter-Partes* Review because Apple has failed to meet its burden to show a reasonable likelihood that at least one of the challenged claims is unpatentable. Specifically, Apple has not demonstrated a reasonable likelihood that any claim of the ‘333 Patent would be rendered obvious in view of any of the two (2) separate Grounds that only together cover all of the challenged claims. Thus, institution of *Inter-Partes* Review of the ‘333 Patent should be denied.

II. MANDATORY NOTICES (37 C.F.R. § 42.8)

A. Real Party in Interest

Patent Owner DH International Ltd. is the real party-in-interest.

B. Related Matters

Patent Owner notifies the Board of the following proceedings involving U.S. Patent No. 9,022,294 (“the ‘294 Patent”) that may affect or be affected by a decision in this proceeding:

- *DH International Ltd. v. Apple.*, N.D. CA, No. 3:23-cv-06185-TLT (Currently dismissed without prejudice and damages based upon the filing of this case, when case refiled after the IPR).

U.S. Patent No. 7,628,333 was the subject of other *inter partes* review proceedings.

- Google LLC., v. DH International Ltd., IPR2024-001321 (Institution Denied March 24, 2025).

The following IPR proceeding involves a different patent that also has been asserted in the above-identified litigation, and may affect, or be affected by, a decision in this proceeding:

- *Google LLC v. DH International Ltd.* IPR2024-01322, U.S. Patent No. 9,022,294, filed September 11, 2024 (Director Review Requested April 7, 2025); and
- *Apple Inc. v. DH International Ltd.* IPR2025-0172, U.S. Patent No. 9,022,294, filed December 3, 2024.

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D. 37 C.F.R. § 42.28(b)(4): Service Information

DHI submitted its Mandatory Notices, Paper 3, and Power of Attorney, Paper

5. DHI also consents to electronic service directed to the following email address:

DHI-IPR@addyhart.com

III. PETITIONER'S PROCEDURAL ERRORS

A. The Petition must specify where each element of the claim is found in the prior art

The Petition fails to meet the requirements of 35 U.S.C. § 312(a) and 37 C.F.R. § 42.104(b)(4) because it lacks specificity as to where each element of the claims of the '333 Patent is found in the relied upon prior art. Petitioner fails to identify a switching element having an active and inactive state as claimed in the '333 Patent. *See e.g.*, Pet. 42 (Element [1.e]). An assertion is made that *McGregor's* microprocessor is a switching element placed into a state and cites to the Buehrer declaration. *See* Exh. 1003, ¶¶125-127. However, Paragraph 125 of Exh. 1003 cites to the '333 Patent, and not to *McGregor* or *Palmer*:

a POSITA would have understood that *McGregor-Palmer* teaches a data conveyance switching element (*e.g.*, *McGregor's* microprocessor modified pursuant to *Palmer's* teachings), as claimed.

Id., ¶125. Similarly, paragraph 126 of Exh. 1003 cites to the '333 Patent while paragraph 127 makes an assertion that the switching element can be both a physical

structure or a virtual program and that based on the combination of *McGregor* in view of *Palmer* a POSITA would “... have understood that a series of instructions would be programmed into *McGregor*’s microprocessor to function as a switching element.” Exh. 1003, ¶¶126-127.

Even assuming Petitioner has a viable theory, which it does not, Petitioner should have explained that theory in its Petition. *See, e.g., Trading Techs. Int’l, Inc. v. IBG LLC*, 921 F.3d 1378, 1385 (Fed. Cir. 2019) (holding that a conclusory assertion with no analysis was not adequately developed).

B. Conclusory Expert Declarations are Entitled to Little or No Weight

Finally, vague and conclusory expert declarations are entitled to little or no weight under 37 C.F.R. § 42.65(a). A recent precedential opinion issued from a *sua sponte* Director Review emphasizes this requirement. *See Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper No. 12, at 4 (PTAB Feb. 10, 2023) (the expert declaration “merely repeats, *verbatim*, the conclusory assertion for which it is offered to support” and therefore is “entitled to little weight”) (citing 37 C.F.R. § 42.65(a)). Such is the case here, the expert declaration (Exh. 1003) makes conclusory statements.

For example, Exh. 1003, ¶¶125-126, makes general statements but fails to cite any support in the references. Instead, it cites exclusively to the ’333 Patent. Other examples include, *see* Exh. 1003, ¶¶125-126, ¶68, 73 (unsupported assertion of ’333

Patent is directed to the problem of a supplementary screen but never identifies the problem”); ¶72 (asserts a comparison is made, with no explanation and ends with another conclusionary statement), Exh. 1003, FN.4

IV. BACKGROUND OF U.S. PATENT NO. 7,628,333

The '333 Patent, titled “Portable Electronic Device Capable of Alternate Data Conveyance Operations Responsive to an Invariable Activation Command,” issued on December 8, 2009, from a National Stage Filing of PCT/IB03/01523, filed on April 14, 2003. *See* Exh. 1001, cover page; 2001, ¶37.

The use of portable electronic devices such as electronic cards for security was known at the time of the '333 Patent. What was not known, however, was that a switching element, used to switch from local access of stored data to the transmission of the stored data, is enabled by both user validation and an “activation cue.” Prosecution of the '333 Patent further reinforced this novel and nonobvious characteristic. During prosecution of the '333 Patent, the patent applicant stated that:

Thus, the contact switch 24 of the card of [prior art] document D1 has the effect of only activating the read mode portion of the card, and has a quite different

function than the control device¹ claimed in the present patent application, which must necessarily be triggered to initiate any data flow towards or out of the electronic circuit.

Exh. 1002, p. 218-219. Thus, as claimed in the '333 Patent, the stored data is not permitted to flow out of the electronic circuit without being triggered by both a user validation (e.g., “invariable activation command”) and an “activation cue” to initiate a data flow. *See* Exh. 2001, ¶¶31-33.

Prior to the reception of an “invariable activation command” (such as validation) and an “activation cue,” the portable electronic device maintains “a first set of [stored] data ... in an inactive state.” Exh. 1001, 6:26. Upon receiving an “invariable activation command” (such as validation) and the “activation cue” by the control device, the accessible data is switched to a second set of data [by the switching element]. *See* Exh. 1001, 7:4-7. The “activation cue” is a predetermined indication for switching what data will be accessed. It is an indicator, “for example, a predetermined bit sequence.” Exh. 1001, 6:1-3; Exh. 2001, ¶¶34-35.

In response to both (1) an “invariable activation command” and (2) an “activation cue” received from an external source, stored data may be transmitted by

¹ A “control device can be any suitable device allowing the portable electronic device holder to selectively trigger a data conveyance operation.” Exh. 1001, 5:5-7.

the portable electronic device. Upon the selective triggering of the control device to issue the “invariable activation command” and receipt of an “activation cue” by the cue receiver, the electronic circuit will accomplish the first data conveyance function; however, if no “activation cue” was received by the cue receiver, the electronic circuit will accomplish a second data conveyance function. *See* Exh. 1001, Abstract.

V. PERSON OF ORDINARY SKILL IN THE ART

Patent Owner agrees with Petitioner on the level of ordinary skill in the art. A person with ordinary skill in the relevant art at the time of invention—April 14, 2003—would have a bachelor’s degree in electrical engineering or a similar discipline and at least two years of relevant industry or research experience in wireless communication between devices. This definition is approximate, and more education may substitute for industry experience or vice versa. *See* Exh. 2001, ¶¶27-30.

VI. THE CHALLENGED CLAIMS

Petitioner challenges claims 1-13 of the ’333 Patent. Of those, claims 1, 10, and 11 are independent. Each claim recites features distinguishing the ’333 Patent from the asserted prior art, directly or via dependency. Exh. 2001, ¶36; Pet. 15.

VII. APPLICABLE LEGAL PRINCIPLES

Petitioner has the burden to show that it is likely to prevail as to at least one of the challenged claims of the '333 Patent. *See* 35 U.S.C. § 314; *SAS Institute Inc. v. Iancu*, 2018 WL 1914661 (Apr. 24, 2018). To make a *prima facie* showing of obviousness under 35 U.S.C. § 103, the Petition must, among other requirements, fulfill the requirements set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966), including demonstrating that the cited references, in combination, disclose each element of a challenged claim. *In re Magnum Oil Tools Int'l.*, 829 F.3d 1364, 1376 (Fed. Cir. 2016); *see also Apple Inc. v. Contentguard Holdings, Inc.*, IPR2015-00442, Paper 9 at 12-13 (PTAB July 13, 2015).

Petitioner has the burden to show there would have been some motivation to combine the asserted prior art, and that the proposed combination would render the patented claims obvious. “Obviousness requires more than a mere showing that the prior art includes separate references covering each separate limitation in a claim under examination.” *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011) (internal citation omitted); *see also In re Magnum Oil Tools Int'l.*, 829 F.3d at 1376.

Even if individual modifications or choices were obvious, a petition must explain why making all the changes at once would be obvious. *Apple Inc. v.*

Contentguard, Paper 9 at 16-17 (“[T]he mere fact that individual changes might have been obvious does not make doing all of the changes at once obvious.”).

The Federal Circuit has found that, even for an obviousness challenge based on a single reference in view of the knowledge and skill of a POSITA, there must be a motivation to make the combination and a reasonable expectation that such a combination would be successful, otherwise a skilled artisan would not arrive at the claimed combination. *In re Stepan Co.*, 868 F.3d 1342, 1345-46 (Fed. Cir. 2017). In other words, when a gap in a single prior art reference requires filling with the knowledge of one of ordinary skill, there must be a further showing that the skilled artisan would have arrived at the claimed invention.

The lack of a technological obstacle to combining references, in and of itself, does not justify a finding of obviousness. *See In re Omeprazole Patent Litig. v. Apotex Corp.*, 536 F.3d 1361, 1380-81 (Fed. Cir. 2008). A reason for combining disparate prior art references is critical and should be made explicit. *InTouch Techs., Inc. v. VGo Communs., Inc.*, 751 F.3d 1327, 1351 (Fed. Cir. 2014) (internal citation omitted).

Hindsight analysis is inappropriate. Obviousness must be measured “at the time the invention was made.” *Ortho-McNeil Pharm. v. Mylan Labs*, 520 F.3d 1358, 1364 (Fed. Cir. 2008) (emphasis original). A petition must demonstrate a rationale to combine prior art references without relying on the patent disclosure itself. *P&G*

v. Teva Pharms. USA, Inc., 566 F.3d 989, 995 (Fed. Cir. 2009). “Care must be taken to avoid hindsight reconstruction by using ‘the patent in suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the results of the claims in suit.’” *In re NTP, Inc.*, 654 F.3d 1279, 1299 (Fed. Cir. 2011)(quoting *Grain Processing Corp. v. American-Maize Prods. Co.*, 840 F.2d 902, 907 (Fed. Cir. 1988). *see also KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

VIII. CLAIM CONSTRUCTION

A. Claim Construction Standard

In an *inter partes* review proceeding, “a claim of a patent ... 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), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” 37 C.F.R. § 42.100(b).

B. The term “activation cue” should be construed as a “a unique indicator.”

The claim term “activation cue” means a predetermined indicator, such as “a predetermined bit sequence” (Exh. 1001, 6:1-3), that is “recognized by the electronic device as an activation cue.” *Id.* The “activation cue” must be intended as a

predetermined indicator and not a message or signal recognized as a message or signal for other action. *See* Exh. 2001, ¶¶51-54. The Petitioner has not provided any claim constructions for the “activation cue.” *See* Pet. 5-6.

C. The term “Invariable Activation Command” is misconstrued by Petitioner

Petitioner asserts a construction attempts to have an erroneous construction that encompasses “the command ‘activates’ a data transfer and is “invariable” in that the user cannot control which path the subsequent data transfer follows. Instead, the state of a switching element dictates the data path.” Pet. 16. The ’333 Patent states that:

The same invariable activation command will thus be issued upon control device 12 being triggered, and it is the state of Switching element 44b, resulting from the receipt or non-receipt of an activation cue by portable electronic device 10, that will be decisive as to the type of data conveyance that will occur.

Exh. 1001, 7:24-29 (emphasis added). *No data transfer occurs or is “activated” until an activation cue is received.* The “invariable activation command” simply prevents the user from choosing any data conveyance, and the state of the switching element and “activation cue” control what occurs. The definition cannot include a command to transmit data, as an activation command does not control the transmission of data. The purpose of the ’333 Patent is data security, and “activation cues” received to transmit the data securely are required for data transmission.

Petitioner waived its right to make new claim construction arguments for additional claim terms by failing to include them in its Petition. Petitioner made no claim construction for “activation cue” and is now prevented from doing so. To the extent Petitioner states that no express construction is required and then later advocates for a specific interpretation during the course of any instituted IPR, such action would be contrary to federal regulation, this Board’s guidelines, and settled law. *See* 37 C.F.R. § 41.104(b)(3) (“The statement [of relief requested] must identify ... [h]ow the challenged claim is to be construed.”); *Microsoft Corp. v. Uniloc*, IPR2019-01188, Paper 27 at 19, 2020 Pat. App. LEXIS 12698 (PTAB Nov. 4, 2020) (on reply, petitioner “cannot raise new claim construction issues that were not previously raised in its petition”) (quoting Consolidated Trial Practice Guide 44-45 (Nov. 2019) *available at* <https://www.uspto.gov/TrialPracticeGuide>).

Claims must be construed “in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art *and the prosecution history pertaining to the patent.*” 37 C.F.R. § 42.100(b) (*emphasis added*) (citing 35 U.S.C. § 282(b)). Hence, all other claim terms should be given their plain and ordinary meaning as used in the ’333 Patent specification and file history. If the Board construes any other claim terms, Patent Owner reserves the right to provide constructions for those terms or other terms, if they become material to the Board’s decision.

IX. OVERVIEW OF THE PRIOR ART

A. McGregor (Exh. 1004)

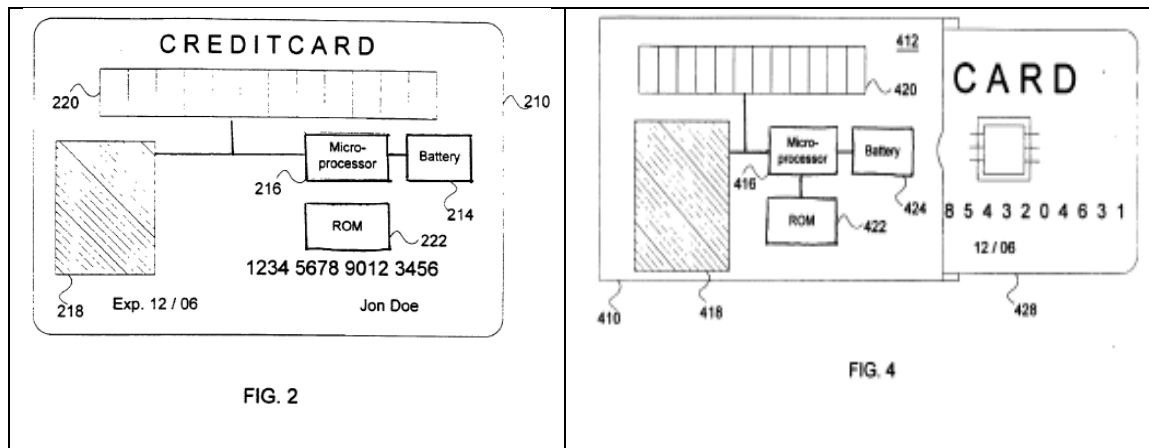
McGregor U.S. Publication No. 2002/0180584A1 (“*McGregor*”) (Exh. 1004) was filed on December 19, 2001. Exh. 2001, ¶¶38-39.

40. *McGregor* describes a “system for increasing transaction security across existing infrastructure.” Exh. 1004, Abstract. The approach for increasing security is designed to be “compatible with the existing infrastructure” and can be used securely for remote, telephonic, or Internet-based transactions. *See id.*, [0011]; Exh. 2001, ¶40.

The first device is “a bio-metric smart card 210 [FIG. 2] that preferably has substantially the same shape and form factor as available plastic credit and debit cards such as card 110 of FIG. 1.” *Id.*, [0037]. The “ROM 222, preferable an EEPROM, stores fingerprint or other bio-metric data, encryption keys, and a transaction counter.” *Id.* No wireless communication or components are described as part of smart card 210. *See id.*; Exh. 2001, ¶41.

The second device of *McGregor* is a card reader 410. *See* Exh. 1004, [0043] and Fig. 4. “The card reader 410 may be formed as a “wallet” such that a smart card can be inserted into the reader as shown in FIG. 4.” *Id.* “The [card reader 410] wallet may include an IR or wireless transmitter to transmit the security code to a transaction network automatically.” *Id.*, [0044]; Exh. 2001, ¶42.

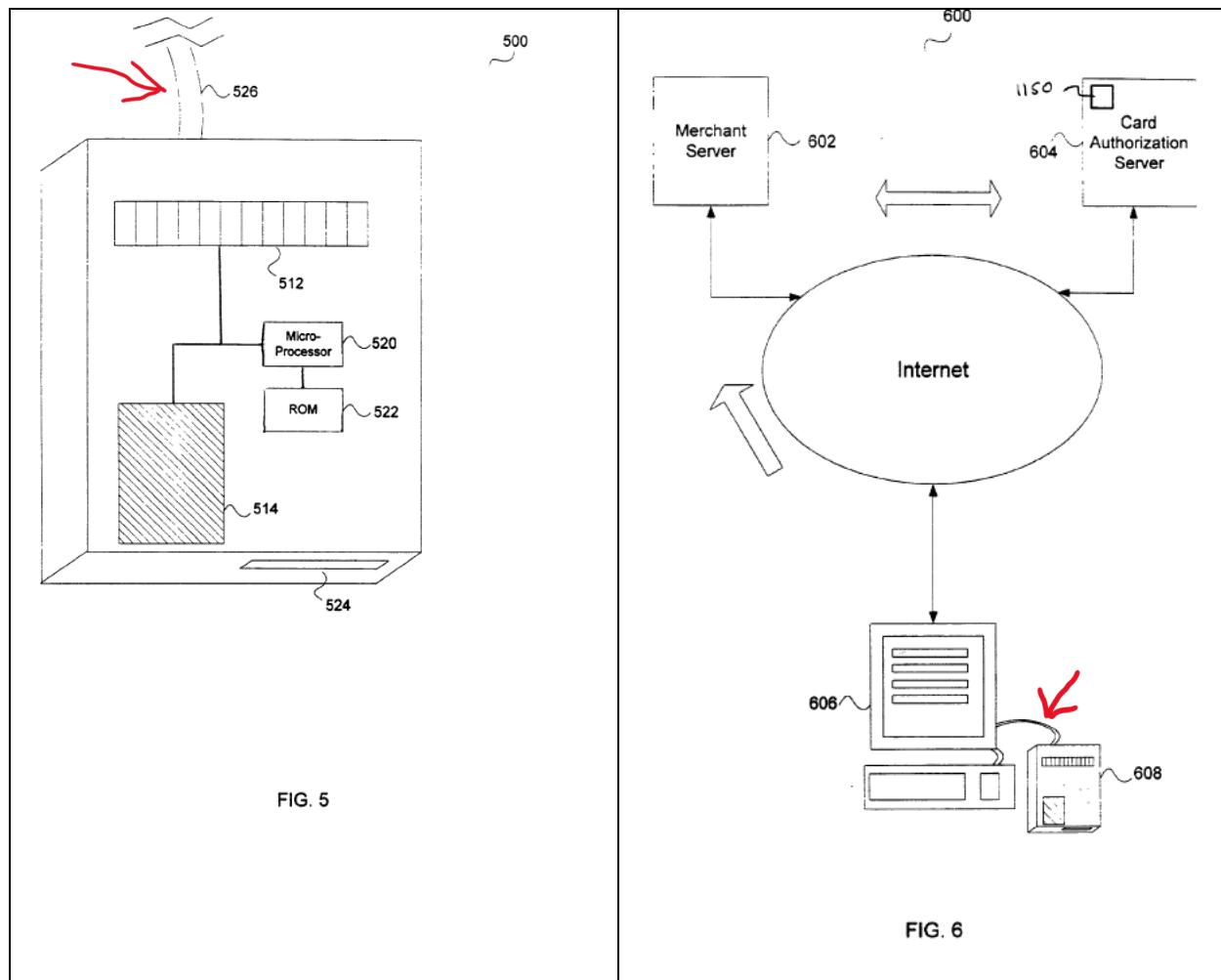
43. The card reader (wallet 412), as described in *McGregor*, does not have the personal data contained in a credit card 210 and needs that personal data to be functional. The different devices shown in Figs. 2 and 4 of *McGregor* are illustrated below:



Exh. 1004, Figs. 2 & 4. In another embodiment of the card reader, *McGregor* explains:

As shown in FIG. 5, the present invention may be configured in an alternative embodiment as a traditional credit card reader 500 for attachment to a computer or point-of-sale (POS) device, Such as an electronic cash register. The card reader includes a microprocessor 510, a display 512, and a bio-metric sensor 514. It also further includes an electrical connection 516 for transferring the security code directly from the reader 500 to the POS device or computer.

Exh. 1004, [0045]. The connected card reader embodiment (Fig. 5) and transaction network with the card reader (Fig. 6) are depicted below:



Exh. 1004, Fig. 5 & 6 (emphasis of red arrow added). The red arrows identify what interface the interface that *McGregor's* card readers (wallet and wired) the Petition is modifying. This is not an interface between the smart card and a device with which the smart card communicates. Exh. 2001, ¶43.

44. The wallet embodiment of Fig. 4 uses a wireless link instead of the

wired link 526² between the card reader and the POS terminal, but it reinforces my view that the wireless link and wired link are both connections to the POS terminal of the transaction network. Exh. 2001, ¶44.

B. Palmer (Exh. 1005)

Palmer U.S. Publication 2003/0226041 (*Palmer*) (Exh. 1005) was filed on March 27, 2003. Exh. 2001, ¶45. *Palmer* discloses an approach for validating a user's identity using biometric data. The device may be an electronic credit card. Exh. 1007, 1:18-39, 4:12-63, 11:45-12:28, Fig. 4. The device includes a biometric sensor “designed to sense some physical attribute of a person” such as a fingerprint, a voice print, or a retinal print. Exh. 1007, 2:62-3:8. Further, this approach is able to effect “secure physical and commercial transactions in a contactless manner using biometric identity validation.” Exh. 1005, [0021]. Exh. 2001, ¶46.

C. Tuttle (Exh. 1006)

U.S. Patent No. 6,078,791 (“*Tuttle*”) (Exh. 1006) was filed on August 6, 1997. Exh. 2001, ¶47. *Tuttle* discloses an approach for radio frequency identification (RFID) transceiver and antenna. “The general purpose and principal object of the

² Reference number 526 in Fig. 5 of Exhibit 1004 is not used in the specification; instead, reference number 516 in paragraph [0045] is used. Upon reviewing a copy of the issued patent (U.S. 7,337,326), a correction to the specification was made and 516 in the specification was replaced with 526.

present invention is to provide a novel alternative approach to all of ... prior art RFID, OCR, and bar code type location tracking and data storage systems. This new approach as described and claimed ... represents a fundamental breakthrough in the field of article transport control in a wide variety of fields, of which the fields of airline baggage transport, delivery of parcels and mail, and inventory control are only three examples.” Exh. 1006, 2:20-28; Exh. 2001, ¶48.

One aspect of the RFID approach of *Tuttle* is “... an RFID device [that] has two modes of operation are provided with a wake-up circuit. The wake-up circuit senses in-band energy and switches from a sleep mode to an operating (waked) mode. The sleep mode being useful during transit and storage of RFID device to conserve battery power.” Exh. 1006, 4:26-31; Exh. 2001, ¶49.

Tuttle also teaches “... the frequencies of radio communication, modulation scheme, geometry of the antenna, the capacity of the battery, and electrical properties of the enclosure cooperate for omnidirectional communication between an enclosed transceiver of the present invention and a distant interrogator. No manual manipulation of the interrogator or transceiver is required for area-wide communication such as confirming the contents of a delivery vehicle or verifying inventory in place.” Exh. 1006, 4:52-60; Exh. 2001, ¶50.

X. RESPONSE TO SPECIFIC IPR GROUNDS

In addition to the reasons outlined in Petitioner’s Procedural Errors section, Section III *supra*, Apple’s Petition should be denied for failing to show a reasonable likelihood that the challenged claims are unpatentable. The combination of *McGregor* and *Palmer*, and *McGregor*, *Palmer*, and *Tuttle* as presented by Petitioner, fails to identify at least one, if not more, of the claim element of the ’333 Patent, such as the “switching element,” “activation cue,” “activation cue received by a transceiver,” and “attempts to call a code a command.”

A. GROUND 1: Obviousness Based on *McGregor* and *Palmer*.

Claims 1, 2, and 4-10 are not obvious based on *McGregor* (Exh. 1004) in view of *Palmer* (Exh. 1005), based on the combination of the *McGregor* and *Palmer* references. *See* Exh. 2001, ¶¶24-25. *McGregor* and *Palmer*, when combined, fail to disclose all limitations of claims 1, 2, and 4-10 and thus do not render the challenged claims as obvious. Furthermore, a POSITA would not have been motivated to use *McGregor*’s smart card reader (wallet 412), which enables existing cards to be compatible with the existing transaction infrastructure, in combination with *Palmer*’s secure transactions in a contactless manner, using validation that is not compatible with the existing infrastructure. When combined, the resulting device using *Palmer*’s secure transactions would fail to achieve the primary goal of the *McGregor* patent, namely, compatibility with existing transaction infrastructure.

The petitioner must explain why the invention, as claimed, would have been obvious to a POSITA at the relevant time. This requirement for explanation remains even in situations that rely on common sense or ordinary ingenuity. *In re Van Os*, 844 F.3d 1359, 1361, (Fed. Cir. 2017) (“Absent some articulated rationale, a finding that a combination of prior art would have been ‘common sense’ or ‘intuitive’ is no different than merely stating the combination ‘would have been obvious.’”). Also, the asserted modification in the Petition of the card reader (wallet) of *McGregor* occurs on a wireless link between the card reader and the transaction network point of sale (POS), not the link between the smart card and the transaction network, as claimed in the ’333 Patent. Exh. 2001, ¶56.

1. No Motivation to Combine

Smart card 10 of the ’333 Patent claims wireless communication between the smart card 10 and the data exchange device (smart card reader) 9. The wallet card reader of *McGregor*, when combined with *Palmer* as asserted in the Petition, describes a wireless link between a card reader and a terminal. See Exh. 2001, ¶¶43-44. The Petition in Grounds 1 and 2, *McGregor* and *Palmer* are directed towards a different communication link than the communication link taught and claimed in the ’333 Patent. Exh. 2001, ¶57.

McGregor’s approach has “a user bio-metric sensor device integrated into a credit or debit ‘smart card.’” Exh. 1004, ¶0012. That device is part of “a system for

increasing transaction security **across existing credit card processing infrastructure.**” *Id.* (*emphasis added*). This is opposed to *Palmer* not attempting to maintain compatibility when addressing “the problem of conventional credit cards using a magnetic strip that requires use of suitable transaction interface machine,” Petitioner’s expert acknowledges. *See* Exh. 1003, ¶76 (*emphasis added*). Furthermore, *McGregor* acknowledges it is attempting to solve “a need in the art for a new fraud-preventive system and method, which is compatible with the existing infrastructure, and can be used securely for remote, telephonic, or Internet-based transactions.” *Id.*, ¶0011. The smart card of *McGregor* does not have a transmitter/receiver; rather, *McGregor* uses a separate card reader (also called a wallet 412) device that has wireless transmitter. *See id.*, ¶0043-0044, 0047, 0068-0069; Exh. 2001, ¶58.

This is opposed to *Palmer*’s approach of RF powering and authentication (*see* Exh. 1005, FIG. 3), which is incompatible with existing infrastructure. The *Palmer* “device 100 is illustrated in an exemplary environment 200 that enables contactless interaction with a reader/writer device 202. To achieve this contactless interaction, the device 100 is shown with the antenna 104 In operation, a two-way communication link 208 may be established between the reader/writer device 202 and the device 100.” *Id.* ¶0027; Exh. 2001, ¶59.

There is no motivation to modify the “credit card 210” of *McGregor* with the transmitter/receiver of *Palmer*, as the wireless capability of *McGregor* is located in the wallet, not the credit card 210. A card with wireless capability would contradict the principles of compatibility with traditional transaction infrastructure as required in *McGregor*. The combination in the Petition is to *McGregor*’s card reader (wallet) and not a credit card (smart card) and *Palmer* teachings. A POSITA would recognize that having communication capabilities in both the wallet and smart card of *McGregor* would also be redundant, resulting in increased costs and adversely impacting power consumption due to powering multiple transmitters. Exh. 2001, ¶60.

Further, the Petitioner's modification of the card reader (wallet) of *McGregor*, uses a transmitter in the card reader device (wallet) and adds to the card reader device an additional transmitter from *Palmer*. Both transmitters are then used to communicate wirelessly between the card reader (wallet) and the transactional network. The ’333 Patent is not directed towards readers, and there is no motivation for a POSITA to combine the teachings of readers *McGregor* and *Palmer* when attempting to teach a smart card type device of the ’333 Patent. Exh. 2001, ¶61.

Petitioner’s Expert asserts that “*McGregor* teaches a bio-metric smart card device that, upon authenticating a user’s biometric data, generates and displays a security code that is used by the transaction network to approve the transaction.

McGregor expressly teaches that the device can also be equipped with a wireless transceiver for automatically communicating the security code to the transaction network.” Exh. 1003, ¶77. This is not true. The smart card device is never described in *McGregor* as having wireless communication ability. A separate card reader (wallet) device is described as having a transmitter. Exh. 2001, ¶61. Dr. Buehrer fails to be consistent in his declaration as to what device of *McGregor* is modified by the teachings of *Palmer*. The Petition and declaration (Exh. 1003) describe the device of *McGregor* as (1) a smart card device, (Exh. 1004, 210 Fig. 2); (2) a smart card device (Exh. 1004, 428 Fig. 4) and reader (wallet) device (Exh. 1004, 412 Fig. 4); and (3) a reader device (Exh. 1004, 412 Fig. 4). Furthermore, if the biometric smart card is used with a “wallet” card reader of *McGregor*, it would make no sense to have the biometric reader on a smart card as it would be inaccessible when the smart card is inserted in the card reader. Exh. 2001, ¶62.

In the Petition’s overview of *McGregor*, Petitioner makes a flawed comparison of “[b]oth *McGregor* and the ’333 Patent are directed to portable electronic devices. Compare *McGregor*, [005], [0043] (disclosing a bio-metric smart card reader to enhance credit card security), with ’333 Patent, Abstract (describing a portable electronic device.” Pet. 8. Portable electronic devices are too broad of a category for comparison as a smart card is not a smart card reader. The devices operate differently as a smart card communicates in the ’333 Patent with a

reader wirelessly (*see* '333 Patent, 10 Fig. 3) and a card reader of *McGregor* communicates with a transaction device or network (*see* Fig. 5 & 6 *McGregor*) associated with a point-of-sale terminal. The physical relationship between a smart card and smart card reader is demonstrated in Fig. 4 of *McGregor* with a card reader (wallet 412) and smart card 428 inserted into the wallet 412:

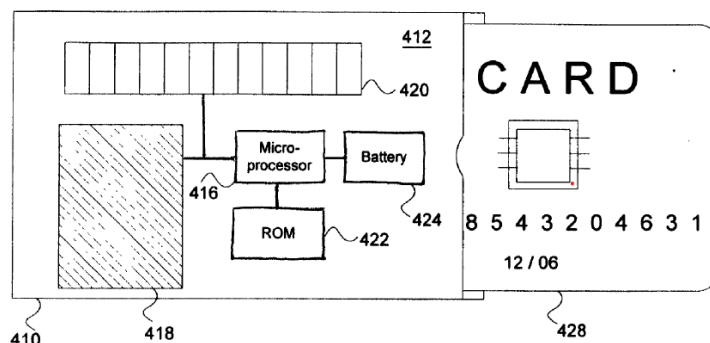


FIG. 4

Exh. 2001, ¶63.

The card reader (wallet 412) device of *McGregor* has a microprocessor. Petitioner asserts that the Smart card chip 408 of *Palmer* is a second controller. *See* Pet. 9 (Footnote 3). A POSITA would understand that microprocessors and controllers are the more expensive chips used in a device. As such, there would not be a motivation to add a controller smart card chip of *Palmer* to the wallet 412 of *McGregor*, when *McGregor's* microprocessor would have the majority of the functionality provided by *Palmer*. I also note that the smart card chip of *Palmer* seems to be cited for teaching a controller (*id.*) and a transceiver (Pet. 55 (citing Dec., ¶163)). Exh. 2001, ¶64.

However, no motivation to combine exists when the combination of *McGregor* and *Palmer* fail to disclose the elements of the '333 Patent and results in a wireless link from a modified card reader where **no wireless link between the smart card 410 and the wallet 412 exists**. It is the wireless link between the smart card and the data exchange device that is claimed in the claims of the '333 Patent. Additionally, a POSITA would not make such a combination of *McGregor* and *Palmer*, as adding a second control would increase the cost at the time of the '333 Patent, require additional battery power, and increase the size of the wallet. Furthermore, the proposed changes resulting from combining the references would not be compatible with existing transaction systems, which is the purpose of the *McGregor* reference. Exh. 2001, ¶65.

2. Independent Claim 1.

The combination of *McGregor* in view of *Palmer* does not render claim 1 obvious, because all the claim elements are not found in the combined references. Exh. 2001, ¶66.

a. [1.Pre] “A portable electronic device, comprising:”

The '333 Patent is claiming a portable electronic device in independent claim 1. Any terminology in the preamble that limits the structure of the claimed invention, such as “a portable electronic device,” must be treated as a claim limitation. *See, e.g., Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d

1251, 1257, (Fed. Cir. 1989) (The determination of whether preamble recitations are structural limitations can be resolved only on review of the entirety of the application “to gain an understanding of what the inventors actually invented and intended to encompass by the claim” as drafted without importing “‘extraneous’ limitations from the specification.”) The Petitioner falsely states that “[b]oth *McGregor*’s bio-metric smart card embodiment as depicted in Fig. 2 and its bio-metric smart card reader (wallet) embodiment as depicted in Fig. 4 satisfy the claims and are captured by the Proposed Grounds. To focus this discussion, Petitioner highlights that Fig. 4 [*McGregor*’s] wallet embodiment in its mapping and includes parallel citations to the Fig. 2 [*McGregor*’s credit card] embodiment.” Pet. 21 (Footnote 6). However, Fig. 2 is described as “a bio-metric smart card 210.” Exh. 1004, ¶0037. Fig. 4 is of “the inventive card reader 410 ... such that a smart card can be inserted into the reader as shown in FIG. 4.” Exh. 1004, ¶0043. The smart card of *McGregor* has no wireless capability. The Petitioner appears to be selecting elements indiscriminately between the two separate devices rather than a single device, such as claimed in independent claim 1 of the ’333 Patent. Exh. 2001, ¶67.

Some components may have similar names but with different element numbers. *McGregor* states, “like reference numerals designate like structural elements.” Exh. 1004, ¶0018. Therefore, no assumption can be made that items

with similar names are similar structural elements as asserted in the Petition and Declaration (Exh. 1003). Exh. 2001, ¶68.

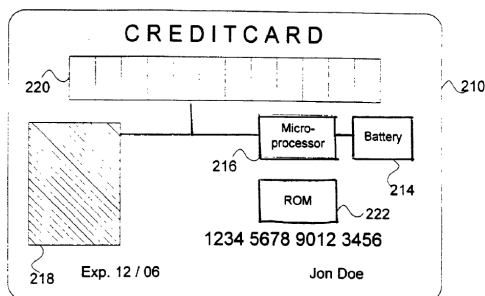


FIG. 2

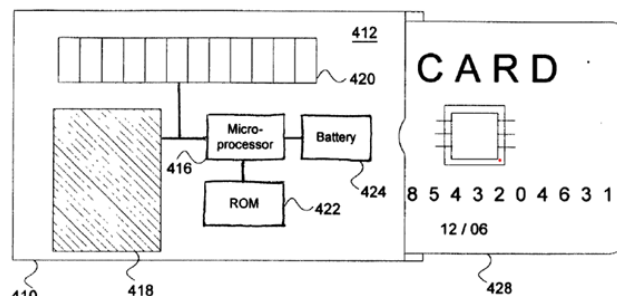


FIG. 4

In *McGregor's* discussion of Fig. 4, there are no reference to any element of Fig. 2 as asserted in Petition's Footnote 6 (Pet., FN. 6). See Exh. 1004, ¶¶0043-0044; Exh. 2001, ¶69.

A POSITA would understand that the card reader (wallet) device of Figure 4 is inoperable without inserting a smart card device into the card reader, as the personal data for a transaction is stored on the smart card. A POSITA would also understand that the structural elements identified in FIG. 2 differ from those identified in FIG. 4. The referenced elements in FIG. 2 have different reference numbers from referenced elements of FIG 4 of *McGregor*. The *McGregor* reference stated that; "like reference numerals designate like structural elements." Exh. 1003, [0018]. As the reference numerals between *McGregor's* FIG. 2 and FIG. 4 differ, it is logical that the elements represent different structural components. Exh. 2001, ¶70-71.

b. [1.a] “an electronic circuit capable of storing data therein, capable of processing data, and capable of data input and output;”

Petitioner stated “the microprocessor in its [*McGregor*’s] Fig. 2 embodiment generates a security key code, it does not expressly teach the microprocessor in its Fig. 4 embodiment is similarly responsible for generating a security key code.” Pet. 24 (Footnote 7). Petitioner admits that there is no description of the microprocessor in Fig. 4 generating a security key code. Exh. 2001, ¶72.

The microprocessor of Fig. 2 is identified as element 216, and the microprocessor of Fig. 4 is identified as element 416. *See* Exh. 1004, Fig. 2 and Fig. 3. They are different microprocessor, and no assumption can be made that they are doing the same processing, such as generating a security key code. Further, *McGregor* stated that “like reference numerals designate like structural elements.” Exh. 1004, ¶0018. Finally, the device of Fig. 2 is a smart card and the device of Fig. 4 is a card reader. Since microprocessors have different reference numbers and are located in different devices, it is improper and against the plain text of *McGregor* to assume they both operate in the same manner. Exh. 2001, ¶73.

The Petitioner also stated “that Fig. 4’s microprocessor receives a fingerprint input and **outputs** a generated security key code (*id.* [Exh. 1004, [0044]]).” Pet. 24 (Footnote 7). Nevertheless, *McGregor* makes no such statement about outputs:

Finger print scanner 418 is accessibly disposed upon surface 412 of the card reader 410 and is connected to the microprocessor 416 to provide

an input signal triggered by the user placing a thumb or finger upon the Surface of the scanner 418. The display 420 is configured to display dynamic numeric and/or textual data forwarded by microprocessor 416, and is intended to accompany the account number for all transactions in the manner outlined above with reference to FIG. 3. The wallet may include an IR or wireless transmitter to automatically transmit the Security code to a transaction network. Thus, the present bio-metric reader (“wallet”) may be used with existing Smart cards, which lack an incorporated microprocessor and/or display.

Exh. 1004, ¶0044. No output of a key is mentioned in paragraph 0044. I am unsure of what they are referring to as “a key being output.” Exh. 2001, ¶74.

A POSTA would understand a microprocessor of Fig. 4 is used on the reader (wallet) device, but it is the data contained on the smart card device that must be used in a transaction. It is noted that Fig. 3 of *McGregor* has a user initiating key production, but an encrypted key is displayed, and a key is not output as asserted by Petitioner. *See* Exh. 1004, 308-310 Fig. 3. What is taught in *McGregor* is that the microprocessor of the card reader (wallet) displays an encrypted key in 420, *see* Exh. 1003, FIG. 4, [0046]. However, the encrypted key displayed by the card reader cannot exist without the smart card inserted into the card reader. In *McGregor*, a smart card is required to be inserted into the card reader for the card reader to generate the encrypted key. Exh. 2001, ¶75.

Further, *McGregor* requires two separate devices (smart card device and card reader device) communicate with each other in order to utilize the microprocessor shown in Fig. 4 to generate a key. Exh. 2001, ¶76.

- c. **[1.b] “a control device operatively linked to said electronic circuit, with an invariable activation command being issued when said control device is selectively triggered”**

The '333 Patent describes the “invariable activation command” as “the activation command issued when control device 12 is triggered.” Exh. 1001, 7:15-17. Further, “[t]he same invariable activation command will thus be issued upon triggering the control device 12, and it is the state of switching element 44b, resulting from the receipt or non-receipt of an “activation cue” by portable electronic device 10, that will be decisive as to the type of data conveyance that will occur.” Exh. 1001, 7:24-29. The data conveyance type depends upon the “activation cue” and not the activation command or “invariable activation command.” Exh. 2001, ¶77.

The '333 Patent's prosecution history states that “the control device claimed in the present patent application, ... must necessarily be triggered to initiate any data flow towards or out of the electronic circuit.” Exh. 1002, 218. “Generally, control device 12 is considered to be triggered when the portable electronic device holder has successfully accomplished the necessary steps for control device 12 to issue an activation command, for example, when the PIN or fingerprint scan was authenticated or when the validation button was pressed, or when the button was

pressed while the fingerprint scan was authenticated.” Exh. 1001, 5:33-39; 2001, ¶78. The “triggering” is with the “invariable activation command.”

The Petitioner asserts “[n]amely, the combination proposes that a POSITA would have been motivated to modify *McGregor* pursuant to *Palmer* such that *McGregor*’s device automatically transmits its security key when the device confirms the existence and availability of a reader/writer device able to receive the code.” Pet. 25-26. It is impossible for a POSITA to make such a combination because the card reader device requires another device (a smart card) to operate as asserted by the Petitioner. Exh. 2001, ¶79.

Petitioner fails to state which device of *McGregor* smart card device 210 or card reader device 412 they are referencing on pages 25-26 of the Petition. The *McGregor* smart card device 210 cannot be modified as stated in the Petition because smart card device 210 does not have a transmitter or receiver. Thus, it is impossible for the *McGregor* smart card device 210 to confirm the existence and availability of reader/writer as there is no transmitter/receiver. This is because smart card device 210 is supposed to be compatible with existing transaction terminals and internet transactions which it is not. *See* Exh. 2001, ¶¶58, 80-81.

The reader (wallet) device 412 is a static reader device and cannot function without a smart card. Further, the combination, as explained by Petitioner, confirms the “existence and availability of reader/writer.” However, the wallet device 412 is

a reader/writer, so modifying the wallet to determine if it exists and is available is pointless. Even if such a combination was possible, it would not be able to automatically transmit its security key code as it has no security key code without a smart card device. Exh. 2001, ¶82.

The Petition states a “POSITA would have understood that the user engaging a finger print scanner to initiate the authentication and data conveyance process is selectively triggering, as claimed. Pet. 26. The Petitioner then selectively cites the ’333 Patent but fails to actually identify where in the combination of *McGregor* and *Palmer* describe the ’333 Patent claim 1 element, “a control device operatively linked to said electronic circuit, with an invariable activation command being issued when said control device is selectively triggered,” is located. The claim element is not simply “selectively triggering.” Exh. 2001, ¶83.

The Petition references Fig. 3 as applying to both the smart card device of Fig. 2 and the card reader device of Fig. 4. However, Fig. 3 only describes displaying data on a display. No wireless transmission is described. Exh. 2001, ¶84.

The Petition refers to paragraph 0044 of *McGregor* for the teaching for an “IR or wireless transmitter.” Despite this, paragraph 0044 describes the card reader device 412, not a smart card device 210 that has an IR or wireless transmitter. The card reader device 412 cannot function as the portable electronic device of claim 1, as the device of claim 1 of the ’333 Patent is not a card reader. Exh. 2001, ¶85.

Palmer teaches a smart card device. The smartcard chip 408 is cited as a second controller (Pet. 9, Footnote 3) and transceiver (Exh. 1003, ¶163) of *Palmer* are cited in the Petition, and not for the smart card device. See Pet. *McGregor*'s wallet device is a card reader. Exh. 1004, ¶0043. Even if the RF field detection of *Palmer* could be combined with the card reader of *McGregor*, it would result in a card reader that has RF field detection. That card reader device lacks functionality without a user inserting a smart card into it and the card reader with RF field detection would rapidly run down its battery attempting to function without a smart card every time a RF field is detected. Exh. 2001, ¶86.

The Petition attempts to define an “invariable activation command” as simply as the system selecting to transmit data through either a first or second data conveyance operation. Yet, this is an improper definition and changes the claim element from “invariable activation command” to automatic data path selection. Exh. 2001, ¶87.

The '333 Patent describes an example implementation where “a single manually activated button provided on the portable electronic device ..., when pressed, issues an activation command that triggers a particular data conveyance.” Exh. 1001, 5:5-12. “Switching element 44b can be any type of device allowing data to be conveyed according to alternate data conveyance operation in response to an activation cue being received by transceiver 18 or not.” Exh. 1001, 6:4-7. “[T]he

activation command issued when control device 12 is triggered, is an “invariable activation command.” That is to say that the portable electronic device holder will not be able to select to issue different activation commands by means of control device 12.” Exh. 1001, 7:15-20. It is not auto switching that is claimed with an “invariable activation command;” rather, it is a first data conveyance automatically changed to a second data conveyance in response to the “invariable activation command.” Exh. 2001, ¶88.

Once again, Petitioner is mixing the devices of *McGregor* in the Petition:

In the Proposed Combination, after a user enters their fingerprint and a security key code is generated, *McGregor*’s microprocessor causes the security key code to be displayed on the card and/or transmitted through a wireless network if an RF field is detected and a two-way communication link established.

Pet. 34. However, there is no transmitter in the smart card device 210 of *McGregor* and therefore, “the security key code to be displayed on the card and/or transmitted through a wireless network if an RF field is detected and a two-way communication link established” as asserted by Petitioner is impossible to occur. Furthermore, this is an example where the Petition switches between different embodiments (e.g., smart card and wallet) with *McGregor*’s different functionalities. Exh. 2001, ¶89.

Further, it is impossible for the card reader 412 to “cause the security key code to be displayed on the card” as the card is in the card reader 412 and the display is on the card reader 412, not the smart card. Exh. 2001, ¶90.

- d. **[1.d] “a data transceiver operatively linked to said electronic circuit, said data transceiver being for exchanging data between said electronic circuit and an external data exchange device, and for receiving a selectively emitted activation cue from a source external to said portable electronic device”**

The Petition states that “the [p]roposed [c]ombination relies on *McGregor*’s modified wallet device exchanging data with an external data exchange device.” Pet., 36. As already established, the wallet of *McGregor* is a card reader device 412. See Exh. 1004, ¶0044. The card reader has no data to exchange without an additional smart card device and it has no security keys without the smart card device. The ’333 Patent teaches a portable electronic device, not a portable electronic device that communicates non-wirelessly with a first external data exchange device (card reader device 412), where the first external data exchange device communicates wirelessly with a second external data exchange device. Exh. 2001, ¶91.

The Petition asserts that the combination of a *McGregor* device ...operatively connected to *Palmer*’s RF antenna 404 and smartcard chip 408 to transmit the security key generated by the microprocessor. See Pet. 37. However, a POSITA would understand that a security key could not be generated by the wallet 412 of *McGregor* as modified by *Palmer* because the wallet is useless without a smart card

device inserted into it. *McGregor* teaches multiple devices that must function together (e.g., a card reader device and a smart card device). Exh. 2001, ¶92.

The Petition switches back and forth between arguments relying on the card reader device (wallet) and the smart card device in *McGregor* in the Petition. The Petitioner asserts the operation of *Palmer*'s smart card device can be combined with the card reader of *McGregor*. However, that invalidity argument is based on the combination of *Palmer*'s teaching of a second transceiver with the card reader of *McGregor*. This is illogical as the resulting card reader device still does not operate without a smart card device. Exh. 2001 ¶93.

Therefore, *McGregor*'s reader device, in view of *Palmer*, results in a nonfunctioning device. For the *McGregor* reader device to function, a smart card device must be in physical contact with the reader device. The claim element [1.d] is not described by the inoperable combination because the smart card reader cannot operate with a smart card device (a second.) Claim 1 of the '333 Patent is a single device. Exh. 2001 ¶93.

- e. **[1.e] “a data conveyance switching element operatively linked to said electronic circuit, said switching element being in an activated state upon an activation cue having been received by said data transceiver, and being in an inactive state when no activation cue was received by said data transceiver”**

Petitioner asserted that the microprocessor is a switching element. Pet. 42. However, the Petitioner does not explain why a POSITA would choose to use the

microprocessor as a switching element when a simpler alternative is known. The Petitioner described two approaches for conveying data. The first approach put forth by the Petitioner and its expert is a device that *both displays and transmits its data* (non-switching approach) when an “activation cue” is received and has no switching element:

[T]ransmitting data when an activation cue has been received (e.g., when handshake signals are exchanged), they do not exclude a device that both displays and transmits its data when an activation cue has been received. *Id.* [Dec., ¶¶107-108.]

Pet. 35. Exh. 2001 ¶95.

In the first approach, no switching occurs, and data is sent to both the display and transmitter.

In the second approach (switching approach), switching between the data states affecting the data conveyance is described and the Petitioner asserts the microprocessor is a switching element:

Namely, as discussed above with reference to limitation [1(b)], *McGregor's* microprocessor is responsible for transmitting a security key code to the device's display and/or automatically transmitting the code in the event a wireless reader/writer device has been detected and a handshake operation has been performed (pursuant to *Palmer's* teachings). Accordingly, *McGregor's* microprocessor is a switching element (1) that is placed into an activated state after receiving a handshake signal (an “activation cue”) that establishes a

communication during the handshake process and (2) that remains in an inactivated state if no reader/writer device is detected. *Dec.* [Exh. 1003], ¶¶125-127.

Pet. 42. Neither the *McGregor* or *Palmer* teach or describe a switching element. Exh. 2001 ¶97.

Petitioner decides to use the second approach simply because of what is described in the '333 Patent. The Petition describes two approaches. First, it describes conveying data to both a transceiver and an LCD display. Second, using a switching element to switch the data conveyance between the transceiver and LCD display. However, there is no evidence in the Petition as to why a POSITA would choose the first approach over the second approach or the second approach over the first approach.

The '333 Patent states that 'switching element 44b can be a physical structure, a virtual program, or both.' '333 Patent, 6:16-17; *see id.*, 6:11-12 (teaching that the element can be 'a series of instructions programmed onto the microchip').

Pet. 41-42. The only explanation in the Petition for selecting a switching approach over a non-switching approach as described by the Petitioner cites the '333 Patent. Exh. 2001 ¶98. *See also supra* III.A.

A POSITA would understand that it is simpler to code conveying data to both data paths, rather than coding switching of data paths with all the associated

overhead of ensuring data is stopped on one path properly and started on another. Furthermore, the amount of memory required would be reduced by the simpler design. Exh. 2001 ¶99.

No software is identified as a switching element in either *McGregor* or *Palmer*. The microprocessor of *McGregor* is not described as doing any switching of data paths. The Petitioner combines the references to convey two types of data simultaneously. Then, the software appears in an assertion made by Petitioner's expert. The Petitioner asserts that a microprocessor is a switching element because the '333 Patent mentions that the switching element can be accomplished with software. Nonetheless, it is the software that operates as the switching element when executed, not the general microprocessor alone. Exh. 2001 ¶100.

Next, the Petitioner disregards its dual data conveyance approach when it states, "*McGregor's* device, modified pursuant to *Palmer's* processes, satisfies this limitation." Pet. 42. However, *Palmer's* process (and similarly *McGregor's* device) does not have: (1) two data conveyance paths; (2) a switching element; (3) switching code for a microprocessor; or (4) any explanation of why a POSITA would choose one approach over another, except for what is taught in the '333 Patent. Exh. 2001 ¶101. *In re Zurko*, 258 F.3d 1379 (Fed. Cir. 2001) (deficiencies of references cannot be saved by appeals to common sense and basic knowledge without any evidentiary support.); *In re Nuvasive, Inc.*, 842 F.3d 1376, 1383 (Fed. Cir. 2016), ("conclusory

statements’ alone are insufficient and, instead, the finding must be supported by a ‘reasoned explanation’’).

The combination of the card reader device of *McGregor* and *Palmer*’s smart card device fails to describe this element because of at least 1) a card reader is modified with the teachings of *Palmer*, 2) a switching element is not described, and 3) the only reason provided for a POSITA to choose a switching approach over a non-switching approach is provided by the ’333 Patent. Exh. 2001 ¶102.

- f. **[1.g] “wherein upon said control device being selectively triggered to issue [sic] invariable activation command: if said switching element is in said activated state, a data exchange will be initiated through the instrumentality of said data transceiver for exchanging data between said electronic circuit and an external data exchange device.”**

Petitioner fails to clearly identify which device of *McGregor* is combined with *Palmer* for this element. The combination of *McGregor* and *Palmer*, as described on page 43 of the Petition, cites paragraph 130 of the declaration, where the device is the card reader device (i.e. *McGregor*’s wallet device) combined with elements of *Palmer*. Exh. 2001 ¶103.

The switching element is not described in the combined reference. *See* Exh. 2001, ¶100. The claim element requires; (1) an “invariable activation command,” and (2) the switching element to be in the activated state, for the (3) data exchange to be initiated between the electronic circuit and the external data exchange device.

As described previously (*see* Exh. 2001, ¶¶77-78), the “invariable activation command.” Exh. 2001 ¶¶104-105.

The Petition asserts that the “command issued by *McGregor*’s microprocessor to convey the security key code is ‘invariable’ in that the microprocessor being in an activated state dictates how the data is conveyed.” Exh. 1003, ¶130; Pet. 43. The claim element [1.g] requires the state of the switching element to be in an activated state, not the state of the microprocessor as stated in the Petition. If various states of the microprocessor were claimed, the wallet device would be turned on or turned off. Therefore, the state asserted in the Petition and Declaration (Exh. 1003) is not the state of the switching element, but rather the operational state of the microprocessor. If the active state is the microprocessor turned on, then the inactive state in the microprocessor in claim element [1.h] has to be the microprocessor turned off. Exh. 2001, ¶106.

The security key code is not intended to be an “invariable activation command.” The Petition asserts that the security key code is “invariable.” *See* Pet. 43. The security key code is simply data generated. However, the ’333 Patent states the “activation cue is in the form of a data communication of a specific type which will be recognized by the electronic device 10 as an “activation cue,” for example, a predetermined bit sequence.” Exh. 1001, 5:67-6:3.

First, the “activation cue” is in the form of a data communication. The security key code is not a form of data communication. Instead, it is part of the PIN Field that is transmitted from the card reader. *See* Exh. 1004, Fig. 12A-C. Second, the conveyance of data occurs (activation) prior to sending the key code. *Id.* Therefore, it is impossible for the security key to be the “invariable activation command.” Exh. 2001, ¶107.

Because *McGregor* combined with *Palmer* (1) fails to establish the switching element and (2) the security key cannot be the “activation cue;” the combination of *McGregor* and *Palmer* fails to describe claim element [1.g]. Exh. 2001, ¶108.

- g. [1.h] “wherein upon said control device being selectively triggered to issue [sic] invariable activation command: if said switching element is in said inactive state, data will be conveyed from said electronic circuit to said user interface device for communicating information to the portable electronic device holder”**

The combination of *McGregor* and *Palmer* fails to describe a switching element. *See* Exh. 2001, ¶¶100, 109. The Petition states, “[a]bsent detecting an RF field of a reader/writer device and performing a handshake process, the wallet’s microprocessor (i.e., switching element) remains in an inactivated state.” Pet. 44. However, in the same paragraph, Petitioner states, “when a user enters their fingerprint for authorization (i.e., selectively triggers the device to send data), automatically displays a security key code (i.e., data) to the wallet device’s display.” *Id.* Exh. 2001, ¶110.

The microprocessor of the card reader device (wallet device) cannot be in an inactive state. The activation of the display requires the microprocessor:

... there is also preferably provided a bio-metric reading apparatus such as fingerprint Scanner 218 in electrical communication with a microprocessor 216.

Exh. 1004, [0037]. It is impossible for the microprocessor of the wallet to be in an inactive state and still be in electrical communication with a microprocessor 216.

Exh. 2001, ¶¶111.

The combined references of *McGregor* and *Palmer* fail to teach all the elements of [1.h] because a switching element is not described and it is impossible for the microprocessor to be in an inactivated state, as the microprocessor must be active for the wallet to operate. Exh. 2001, ¶¶112.

Thus, the combination of *McGregor* and *Palmer* fails to teach elements 1.pre, 1.a, 1.b, 1.d, 1.e, 1.g, 1.h. of independent claim 1, and claim 1 is not obvious in view of *McGregor* and *Palmer*. See Exh. 2001, ¶¶66-113.

3. Claim 2 – “A portable electronic device as defined in claim 1, wherein said user interface device is a display screen”

Claim 2 is a dependent claim and incorporates all the elements of claim 1. All the elements of claim 1 are not disclosed in the combined references of *McGregor* and *Palmer*. See Exh. 2001, ¶¶65-115.

The combination of *McGregor* and *Palmer* fails to describe claim 2 because of its dependence upon claim 1, and the combination of *McGregor* and *Palmer* does not describe all of the elements of claim 1. Exh. 2001, ¶116.

4. Claim 4 – “A portable electronic device as defined in claim 1, wherein said control device is a biometric parameter detector.”

Claim 4 is a dependent claim and incorporates all the elements of claim 1. All the elements of claim 1 are not disclosed in the combined references of *McGregor* and *Palmer*. See Exh. 2001, ¶¶66-113, 117-118.

The combination of *McGregor* and *Palmer* fails to describe claim 4 because of its dependence upon claim 1, and the elements of claim 1 are not described in *McGregor* and *Palmer*. Exh. 2001, ¶119.

5. Claim 5 – “A portable electronic device as defined in claim 4, wherein said biometric parameter detector is a fingerprint scanner capable of obtaining a fingerprint scan, and whereby said control device is triggered when the fingerprint scan matches a fingerprint image pre-saved in said electronic circuit.”

Claim 5 is a dependent claim and incorporates all the elements of dependent claim 4 and independent claim 1. All the elements of claims 1 and 4 are not disclosed in the combined references of *McGregor* and *Palmer*. See *supra* ¶¶66-113, 117-121.

The combination of *McGregor* and *Palmer* fails to describe claim 5 because of its dependence upon claims 1 and 4, and the elements of claims 1 and 4 are not described in *McGregor* and *Palmer*. Exh. 2001, ¶122.

6. Claim 6 – “A portable electronic device as defined in claim 1, wherein said control device is a manually activated button, and whereby said control device is triggered when the button is pressed.”

Claim 6 is a dependent claim and incorporates all the elements of claim 1. All the elements of claim 1 are not disclosed in the combined references of *McGregor* and *Palmer*. See Exh. 2001, ¶¶66-113, 123-124.

The electrical device of claim 1 was a card reader (wallet) 412 of Fig. 4 of *McGregor* combined with parts of the smart card of *Palmer*. Now, the Petitioner has switched the card reader device from 412 to a credit card device 710 that has the functionality of a fingerprint scanner but lacks a transceiver or other type of wireless communication. If the smart card device 710 is relied upon, then none of the elements of claim 1 that rely on the card reader device and its wireless capability can be relied upon. Exh. 2001, ¶125.

The Petitioner states that a “POSITA would have expected success in making this simple substitution between a biometric sensor and simple button.” Pet. 49. However, what is described by the Petitioner is the combination of a card reader device 412 with a smart card device 710 of *McGregor*. Different embodiments of *McGregor* are used by Petitioner rather than a single device to show all of the elements of the claims. Exh. 2001, ¶126.

The combination of *McGregor* and *Palmer* fails to describe claim 6 because it relies on claim 1, and all the elements of claim 1 are not described in the combined

references of *McGregor* and *Palmer*. Furthermore, claim 6 relies on a *McGregor*'s device that differs from the portable electronic device as claimed in claim 1 of the '333 Patent. Exh. 2001, ¶127.

7. Claim 7 – “A portable electronic device as defined in claim 1, wherein said electronic circuit comprises said switching element.”

Claim 7 is a dependent claim and incorporates all the elements of claim 1. All the elements of claim 1 are not disclosed in the combined references of *McGregor* and *Palmer*. See Exh. 2001, ¶¶66-113, 128-129.

As previously discussed, a microprocessor can run firmware to execute software, and the executed software may function as a switching element, but neither *McGregor* nor *Palmer* describes software used as a switching element. See Exh. 2001, ¶¶98-99, 130. The combination of *McGregor* and *Palmer* fails to describe claim 7 because of its dependence upon claim 1, and all of the elements of claim 1 are not described in *McGregor* and *Palmer*. Exh. 2001, ¶131.

8. Claim 8 – “A portable electronic device as defined in claim 7, wherein said electronic circuit comprises a microchip, and wherein said switching element is a series of instructions programmed onto said microchip.”

Claim 8 is a dependent claim and incorporates all the elements of claims 1 and 7. All the elements of claims 1 and 7 are not disclosed in the combined references of *McGregor* and *Palmer*. See Exh. 2001, ¶¶66-113, 128-133.

The combination of *McGregor* and *Palmer* fails to describe claim 8 because of its dependence upon claims 1 and 7, and all the elements of claims 1 and 7 are not found in *McGregor* and *Palmer*. Exh. 2001, ¶134.

9. Claim 9 – “A portable electronic device as defined in claim 1, wherein said switching element comprises a logical circuit.”

Claim 9 is a dependent claim and incorporates all the elements of claim 1. All the elements of claim 1 are not disclosed in the combined references of *McGregor* and *Palmer*. See Exh. 2001, ¶¶66-113, 135-136. Claim 9 requires a logical circuit having a switching element. A POSITA would understand a switching element in an electronic circuit to be a physical component that switches in the electronic circuit. Dependent claim 7 is an “electronic circuit,” and a POSITA would understand that to exclude software. Exh. 2001, ¶137.

Claim 9 must be differentiated from claims 7 and 8 because using the Petitioner’s rationale would result in claims not being differentiated and redundant as the microprocessor has software acting as the switching functionality, but the microprocessor is the electronic circuit. The microprocessor has circuitry that enables the firmware to run, allowing the software to be executed. The microprocessor on its own is not a “logic circuit” as used in claim 9. The Petition’s assertions are not supported by how the term microprocessor and logic circuit are used in the ’333 Patent. Exh. 2001, ¶138.

A POSITA would know the difference between the term “logic,” which includes software execution by the processor, and “logical circuit,” which would indicate physical switches, including physical transistors, in a circuit outside of a general-purpose microprocessor. Exh. 2001, ¶139.

The *McGregor* reference does not describe a physical switching element. Exh. 2001, ¶140.

The *Palmer* reference does not describe a physical switching element. Exh. 2001, ¶141.

As previously explained, even if software was considered to meet this element, no software is identified in any of the references, as no switching or switches are in any of the references to meet the switching claim limitation. See Exh. 2001, ¶¶95-102, 142. The combination of *McGregor* and *Palmer* fails to describe a physical switching element. Exh. 2001, ¶143.

The combination of *McGregor* and *Palmer* fails to describe claim 9 because of its dependence upon claim 1, and the elements of claim 1 are not described in *McGregor* and *Palmer*. Furthermore, *McGregor* and *Palmer* fail to describe a switching element comprising a logical circuit as required by claim 9. Exh. 2001, ¶144.

For the above reasons, there can be no motivation to combine the card reader of *McGregor* with the smart card device of *Palmer*. Even if such a combination

could be possible, the '333 Patent would not be obvious in view of the resulting cacophony of components of *McGregor* combined with *Palmer* and would fail to describe all elements of claims 1, 2, and 4-10 of the '333 Patent. Exh. 2001, ¶145.

10. Independent claim 10

a. [10.Pre] “A data exchange system”

Once again, the Petitioner and its expert are failing to identify in the Petition what devices are referenced in *McGregor* and *Palmer* to achieve this limitation. The only support is to the assertions made regarding claim element [1.d] and paragraph 146 in the declaration (Exh. 1003). Further, the portable electronic device in the system, as asserted in the Petition, is the card reader (Wallet) of *McGregor*, not the smart card. Exh. 2001, ¶146.

Element [1.d] assertions were directed toward the card reader (wallet) of *McGregor* as modified by *Palmer*. See Exh. 2001, ¶¶91-94. The resulting card reader is inoperable without a smart card, which is a separate device. This is opposed to the teachings of the '333 Patent. A POSITA would understand that a card reader device is not a smart card device. Exh. 2001, ¶147.

The Petitioner's Declaration acknowledges that “[a]ccordingly, a POSITA would have understood that *McGregor-Palmer* teaches a data exchange system comprising a portable electronic device (e.g., *McGregor*'s wallet) and a data exchange device (e.g., *Palmer*'s reader/writer device).” Exh. 1003, ¶146. What is

described is the card reader (wallet of *McGregor*) having the capability to exchange data with another reader device, but this communication is impossible to occur without the presence of another device, namely a smart card. Exh. 2001, ¶148.

The combination of *McGregor* and *Palmer* as explained in the Petition and Exh. 1003 fails to describe this element as used in independent claim 10. Exh. 2001, ¶149.

b. [10.a] “a data exchange device comprising a first electronic circuit, a first data transceiver and a cue emitter; and”

The Petition and Declaration (Exh. 1003) is once again relying on *McGregor*’s wallet 410, which is a card reader. The Petition explains that “*McGregor* teaches retailer-based readers connected to the transaction network that facilitate short-range communications with wallet 410. *McGregor*, [0039] (‘The displayed security key is communicated or transmitted to the credit card authorization service [] through a reader[.]’); Dec., ¶148”. Pet. 51-52. The wallet is incapable of generating a security key without a separate device, which is not acknowledged, placed in the wallet. In simpler terms, the wallet of *McGregor* and *Palmer* cannot operate and communicate with a transaction network without the presence of another device. Exh. 2001, ¶150.

The wallet of *McGregor* as modified by *Palmer* fails to have any data to exchange. Exh. 2001, ¶151. Claim element [10.a] is not met by the combination of

McGregor and *Palmer* as asserted in the Petition and Declaration (Exh. 1003.) Exh. 2001, ¶152.

c. [10.b] “a portable electronic device, comprising:”

The Wallet of *McGregor* fails, as asserted in the Petition fails to describe this element. *See* Exh. 2001, ¶¶146-148, 153.

d. [10.d] “a control device operatively linked to said second electronic circuit, with an invariable activation command being issued when said control device is selectively triggered;”

As previously discussed with respect to claim 1 element [1.b], *McGregor*, in view of *Palmer*, does not describe this claim element. *See* Exh. 2001, ¶¶77-89, 154.

e. [10.f] “a second data transceiver operatively linked to said second electronic circuit;”

The Petitioner asserts that a card reader (i.e., *McGregor*’s wallet 412) has the second data transceiver. A POSITA would understand that the second data transceiver is pointless and inoperable without another separate smart card device inserted into the wallet device. As described in the Petition and Declaration (Exh. 1003), a card reader communicates with another card reader, which, on its own, cannot function as the device of claim 10. Exh. 2001, ¶155.

Claim 10 element [10.f] is not described by the card reader (wallet) of *McGregor* as modified by *Palmer* as described in the Petition as it is inoperable. Exh. 2001, ¶156.

- f. [10.g] “a data conveyance switching element operatively linked to said second electronic circuit, and”**

As previously explained, the combination of *McGregor* with *Palmer* fails to describe a switching element. *See* Exh. 2001, ¶¶95-102, 157. Claim element [10.g] is not found in the combination of *McGregor* and *Palmer*. Exh. 2001, ¶158.

- g. [10.g.i] “switching element being in an activated state upon an activation cue having been received by said second data transceiver, and being in an inactive state when no activation cue was received by said second data transceiver; and”**

As previously explained, the combination of *McGregor* with *Palmer* fails to describe a switching element and inactive state. *See* Exh. 2001, ¶¶95-102, 159. Claim element [10.g.i] is not found in the combination of *McGregor* and *Palmer*. Exh. 2001, ¶160.

- h. [10.i] “wherein upon said control device being selectively triggered to issue said invariable activation command: if said switching element is in its activated state, a data exchange will occur between said first data transceiver and said second data transceiver, thereby exchanging data between said data exchange device and said portable electronic device;”**

As previously explained, the combination of *McGregor* with *Palmer* fails to describe a switching element. *See supra* ¶¶95-102, 161. In my opinion, the claim element [10.i] is not found in the combination of *McGregor* and *Palmer*. Exh. 2001, ¶162.

- i. [10.j] “wherein upon said control device being selectively triggered to issue said invariable activation command: if said switching element is in its activated state, a data exchange will occur between said first data transceiver and said second data transceiver, thereby exchanging data between said data exchange device and said portable electronic device;”

As previously explained, the combination of *McGregor* with *Palmer* fails to describe a switching element. *See* Exh. 2001, ¶¶95-102, 163. Claim element [10.j] is not found in the combination of *McGregor* and *Palmer*. Exh. 2001, ¶164.

Claims 1-2 and 4-10 of the '333 Patent are not obvious as *McGregor*, combined with *Palmer*, fails to have the motivation to make such a combination and, if made, fails to teach all the elements of claims 1-2 and 4-10. Exh. 2001, ¶165.

B. GROUND 2: Obviousness Based on *McGregor*, *Palmer*, and *Tuttle*.

Claims 3 and 11-13 are not obvious over *McGregor* in view of *Palmer* and, further, in view of *Tuttle*. Exh. 2001, ¶166.

1. No Motivation to Combine.

As previously discussed, there is no motivation to combine *McGregor* and *Palmer*. *See* Exh. 2001, ¶¶57-65. *Tuttle* is cited to provide “detail on an integrated circuit that would allow smartcard chip 408 of *Palmer* to achieve the functions outlined in *Palmer*.” Pet. 56. *Tuttle* provides additional detail but does not add the elements that have been found lacking in independent claim 1 and dependent claim 4. Exh. 2001, ¶167.

Furthermore, *Tuttle* is designed for omnidirectional communication, tracking inventories and other items, such as luggage. *See* Exh. 2001, ¶¶47-50. The *McGregor* and *Palmer* reference describes two-way communication and, securing data. *See* Exh. 1004, FIG. 12; 1003, FIG. 3; 2001, ¶168.

The approach of *McGregor* is to have a smart card that is able to use traditional infrastructure. The approach of *Tuttle* “is to provide a non-contact method of object and person detection and location which can **serve as a replacement** for magnetic strip, bar code, and other types of contact-powered electronics.” Exh. 1006, 3:52-57 (*emphasis added*). A POSITA looking to *McGregor*’s approach, constrained by the smart card’s ability to be used with traditional infrastructure, would not look to *Tuttle*’s approach, which seeks to replace such traditional infrastructure approaches. Exh. 2001, ¶169.

Further, the RFID approach of *Tuttle* is a self-contained RFID device that incorporates an antenna and has connections for a battery. *See* Exh. 1006:4: 5-21. A POSITA would understand that no data bus or other connections are available to integrate data processing with the microprocessor of *McGregor* or the controller of *Palmer*; *Tuttle* is a standalone IC (*See* Exh. 1006, Fig. 1B), and a POSITA would not look to it or its designs because an RFID is a specific type of smart card ID technology with a specific functional purpose. The Petition does not explain how such stand-alone technology can be successfully integrated into a different device,

the RFID technology of *Tuttle*. The 1006 is specifically designed to be a single, complete device that requires only power. Exh. 2001, ¶170.

There is no motivation to combine the *McGregor*, *Palmer*, and *Tuttle* references, at least because if such a combination were possible, claim elements would still be missing. Exh. 2001, ¶171.

2. Claim 3 – “A portable electronic device as defined in claim 1, wherein said data transceiver comprises a data transmitter, a data receiver distinct from said data transmitter, and a cue receiver distinct from said data receiver.”

Claim 3 is a dependent claim and incorporates all the elements of claim 1. All the elements of claims 1 are not disclosed in the combined references of *McGregor* and *Palmer*. See *supra* ¶¶66-113, 172-173.

The *Tuttle* reference does not address any of the missing elements from claim 1. Even if the card reader (wallet 412) of *McGregor* is modified with a second transceiver, it will not operate (i.e., generate security keys) unless another device (an actual smart card) is inserted into the card reader (wallet). Exh. 2001, ¶¶174-175.

The Petition also states that:

One such system is *Tuttle*’s integrated circuit 11 comprising wake-up circuit 12, receiver 13, transmitter 14, control logic 15, and memory 16. For example, *Tuttle* teaches that the wake-up circuit 12 “senses in-band energy [(an interrogation signal)] and switches from a sleep mode to an operating (waked) mode.” *Tuttle*, 4:27-29.

Pet. 59. A POSITA would understand that the card reader (wallet) of *McGregor* waking up whenever it senses band energy would simply run the battery down, as the card reader has no data to transmit without a smart card being inserted. The approach of the Petition would not be taken by a POSITA. This battery run-down problem was even addressed in *Tuttle*. “The cache [of RFID device], not shown, includes ... shielding means for preventing signal reception by enclosed transceiver within the cache. If shielding were not included, a supply of transceivers located within communicating range of an interrogator would soon expend battery capacity by processing signals including, for example, wake-up signals.” Exh. 1006, 11:25-32. The wake-up signal approach of *Tuttle*, as proposed in the Petition, would simply run down the battery of the card reader (*McGregor*’s wallet 412), making the card reader unavailable when needed for a transaction. Exh. 2001, ¶176.

The Petitioner’s approach has taken a card reader (wallet) and added a second controller, two transceivers, and wakes up whenever in-band energy is sensed while acknowledging it is all battery powered. A POSITA would know designs running on battery have to be carefully designed to prolong battery life and the approach of the Petition would result in a device that would have limited battery life using battery technology at the time of the ’333 Patent. Exh. 2001, ¶177.

It is my opinion that the combination of *McGregor*, *Palmer*, and *Tuttle* fails to disclose the elements of claim 3 because of its dependence upon claim 1, and the resulting device would not operate without a smart card. Exh. 2001, ¶178.

3. Independent claim 11

A method for a single device is claimed in the '333 Patent. The Petition and Declaration (Exh. 1003) are modifying the card reader (wallet) of *McGregor* as the device, which lacks data to operate without a smart card. Exh. 2001, ¶179.

- a. **[11.pre] “A method for data exchange with a portable electronic device of the type comprising; an electronic circuit capable of storing data therein, capable of processing data, and capable of data input and output, a control device operatively linked to said circuit, a user interface device operatively linked to said circuit, communication ports operatively linked to said circuit, a switching element operatively linked to said electronic circuit and being in a default inactive state, and power means for providing power to said portable electronic device, said method comprising the steps of:”**

As previously explained, there is no switching element, and even if a microprocessor could be used as a switching unit, why a POSITA would use that approach rather than a simpler approach. *See* Exh. 2001, ¶¶95-102, 180.

The state of the processor is used rather than the state of the switching element. *See* Exh. 2001, ¶¶105-107. The security key code is not intended to be an “invariable activation command.” *See* Exh. 2001, ¶¶101, 181-182.

At least one of the elements identified in the preamble of claim 11 of the '333 Patent is not found in the combination of *McGregor*, *Palmer*, and *Tuttle*. Exh. 2001, ¶183.

b. [11.a] “awaiting for an activation cue to be received at a predetermined one of said communication ports;”

The Petition relies on *McGregor* in view of *Palmer*, where the card reader device of *McGregor* is modified by *Palmer*, which is further modified by *Tuttle*. See Pet. 61. What results is simply a card reader that waiting for activation. A POSITA would understand that the card reader would not function even upon receipt of “in-band energy,” as the card reader (wallet) of *McGregor* requires a smart card to be inserted to operate. See Exh. 1004, Fig. 4; 2001, ¶184.

The combination of *McGregor*, *Palmer* and *Tuttle* fails to disclose this element. Exh. 2001, ¶185.

c. [11.b] “if an activation cue is received at one of said communication ports, changing the state of said switching element from its default inactive state to and activated state”

The state of the processor is used rather than the state of the switching element. See Exh. 2001, ¶¶106-108, 186. There is no switching element. See Exh. 2001, ¶¶95-102, 187.

Claim element [11.b] is not described in the combination of *McGregor* and *Palmer*, in further view of *Tuttle*, as at least no switching element is disclosed or identified. Exh. 2001, ¶188.

- d. **[11.c] “selectively triggering said control device to issue an invariable activation command, whereby said method will further comprise one of the two following steps: if said switching element is in its activated state, initiating a data exchange with an external data exchange device through at least one of said communication ports; and”**

The state of the processor is being used rather than the state of the switching element. *See* Exh. 2001, ¶¶106-108, 189. There is no switching element. *See* Exh. 2001, ¶¶95-102, 190. Claim element [11.c] is not described in the combination of *McGregor* and *Palmer*, in further view of *Tuttle*, as at least no switching element is disclosed or identified. Exh. 2001, ¶191

- e. **[11.d] “selectively triggering said control device to issue an invariable activation command, whereby said method will further comprise one of the two following steps: . . . if said switching element is in its inactive state, conveying data from said electronic circuit to said user interface device for communicating information to the portable electronic device holder.”**

The state of the processor is used rather than the state of the switching element. *See* Exh. 2001, ¶¶106-108, 192. There is no switching element. *See* Exh. 2001, ¶¶95-102, 193.

Claim element [11.d] is not described in the combination of *McGregor* and *Palmer*, in further view of *Tuttle*, as at least no switching element is disclosed or identified. Exh. 2001, ¶194. Independent claim 11 of the '333 Patent is not Obvious under 35. U.S.C. § 103 with the combination of *McGregor* in view of *Palmer*, and in further view of *Tuttle*, as all the elements of claim 11 are not found in the combined references. Exh. 2001, ¶195.

4. Claim 12 – “A method as defined in claim 11, wherein said activation cue is received at one of said communication ports distinct from another one of said communication ports used for data exchange with the external data exchange device.”

Claim 12 is a dependent claim and incorporates all the elements of claim 11. Not all the elements of claim 11 are found in the combined references of *McGregor*, *Palmer*, and *Tuttle*. See Exh. 2001, ¶¶179-195, 196-197.

The combination of *McGregor*, *Palmer*, and *Tuttle* fails to describe claim 12 due to its dependence on claim 11. Further, no switching element is found in the combination of the references. Exh. 2001, ¶198.

5. **Claim 13 – “A method as defined in claim 11, wherein the additional following step occurs after selectively triggering said control device if said switching element is in said activated state: conveying data from said electronic circuit to said user interface device for communicating information to the portable electronic device holder.”**

Claim 13 is a dependent claim and incorporates all the elements of claim 11. Not all the elements of claim 11 are found in the combined references of *McGregor*, *Palmer*, and *Tuttle*. See Exh. 2001, ¶¶179-195, 199-200.

The combination of *McGregor*, *Palmer*, and *Tuttle* fails to describe claim 13 due to its dependence on claim 11. Further, no switching element is found in the combination of the cited references. Exh. 2001, ¶201.

There is no motivation to combine the references of Ground 2. Even if the references could be combined, the combination of *McGregor*, *Palmer*, and *Tuttle*, as described in the Petition and Exh. 1003, and fails to describe or address at least one element in each of claims 3 and 11-13 of the '333 Patent. Exh. 2001, ¶202.

XI. SECONDARY CONSIDERATIONS

As the Petitioner has failed to meet its burden of establishing a *prima facie* case for any of the claims of the '333 Patent, much less to identify a motivation to modify *McGregor* and *Palmer* in Ground 1, *McGregor*, *Palmer*, and *Tuttle* in Ground 2, Patent Owner reserves the right to address secondary considerations, if needed, later in these proceedings.

XII. DENIAL OF INSTITUTION IS APPROPRIATE

“[T]he decision whether to institute an inter partes review is discretionary.”

Unified Patents Inc. v. C-Cation Techs., LLC, IPR2015-01045, Paper 15 at 3 (PTAB Oct. 7, 2015) (citing 37 C.F.R. § 42.108 (a)). Denial of institution (Discretionary or otherwise) appropriate in this case for the following reasons:

- (1) Parties are litigating this patent in U.S. District Court for the Northern District of California. On January 8, 2025, the Parties filed a Joint Stipulation to dismiss without prejudice Patent Owner’s lawsuit against Petitioner while tolling the damages period during the IPR. *See* Exh. 2002. The lawsuit will be refiled pending the outcome of the IPR. Exh. 2002, ¶¶ 2-3.
- (2) No post-petition stipulation to not pursue grounds raised or that reasonably could have been raised in parallel litigation has been filed.
- (3) There are no “compelling merits” for having the PTAB decide this case.
- (4) Congress specifically contemplated that regulations implementing IPRs might include “a safety valve that allows the Office to decline to institute further proceedings if a high volume of pending proceedings threatens the Office’s ability to timely complete all proceedings.” *157 Cong. Rec.* S1377 (daily ed. Mar. 8, 2011).

CONCLUSION

Petitioner Apple has failed to establish that claims 1-13 are rendered obvious by any combination of the asserted prior art references. Therefore, institution by the Board of *inter partes* review is not appropriate, and the Board should deny the Petition.

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned certifies service of Patent Owner DH International Ltd. served this Patent Owner's Preliminary Response on the counsel of record for Petitioner Apple Inc. by filing this document through the P-TACTS, as well as delivering a copy via electronic mail to the following:

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Date: April 15, 2025

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CERTIFICATE OF COMPLIANCE

This Petition complies with the type-volume limitations as mandated in 37 C.F.R. § 42.24, totaling 13,428 words. Counsel has relied upon the word count feature provided in Microsoft® Word for Mac Version 16.661.

Dated: April 15, 2025

By: /s/ *Robert Hart*
Robert Hart