

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

DH INTERNATIONAL LTD.,
Patent Owner.

PTAB Case No. IPR2024-01321

Patent No. 7,628,333

**DECLARATION OF MR. SAFWAN ZAHEER
IN SUPPORT OF THE PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 7,628,333**

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TABLE OF DECLARATION EXHIBITS AND APPENDIX

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
1003	Declaration of Stuart Lipoff (“ <i>Lipoff</i> ”)
1004	Curriculum Vitae of Stuart Lipoff
1005	U.S. Patent No. 7,278,581 to Ong <i>et al.</i> (“ <i>Ong</i> ”)
1006	PCT International Publication No. WO 1990/013096 A1 to Hoff <i>et al.</i> (“ <i>Hoff</i> ”)
1007	U.S. Patent No. 7,337,326 to Palmer <i>et al.</i> (“ <i>Palmer</i> ”)
1008	U.S. Patent No. 7,376,583 to Rolf <i>et al.</i> (“ <i>Rolf</i> ”)
1009	John McCrindle, Smart Cards, (Springer Verlag, 1990) (“ <i>McCrindle</i> ”)
1010	U.S. Patent No. 6,257,486 to Teicher <i>et al.</i> (“ <i>Teicher</i> ”)
1011	Hiro Shogase, The Very Smart Card: A Plastic Pocket Bank, IEEE Spectrum, October 1988 (“ <i>Shogase</i> ”)
1012	U.S. Patent No. 7,136,623 to Fare <i>et al.</i> (“ <i>Fare</i> ”)
1013	U.S. Patent No. 7,440,771 to Purk (“ <i>Purk</i> ”)
1014	U.S. Patent Pub. No. 2004/0117262 to Berger <i>et al.</i> (“ <i>Berger</i> ”)
1015	<i>DH International Ltd v. Google LLC</i> , No. 1-23-cv-01116, Order Dismissing Case (WDTX December 15, 2023)
2001	Declaration of Safwan Zaheer

DECLARATION OF SAFWAN ZAHEER
IN OPPOSITION TO PETITION FOR
IPR2024-01321, U.S. PATENT NO. 7,628,333

Appendix

Curriculum Vitae of Safwan Zaheer

I, Mr. Safwan Zaheer, declare as follows:

I. INTRODUCTION

1. I work at autoMHatic Financial, a private equity-backed specialty lender focused on manufactured home loans. I have over twelve years of experience with the digital transformation of financial companies, such as FinTech and product development. As Chief Operating Officer & Chief Product Officer, I lead Product, Operations, and Technology responsible to accelerate the lending business, build operating efficiency, and increase competitive advantage through products that expand market share and increase company valuation. I have previously served as EVP & GM at LendingPoint where I was tapped to scale POS Lending and Payments business across Dental, Elective Medical, and Home Improvement verticals, which I grew from \$90M to over \$350M in funded volume per year during my tenure. Previously as Head of Products at BM Technologies (formerly BankMobile), I launched and scaled T-Mobile MONEY, growing the digital banking platform to 500K consumers. In my current role at autoMHatic Financial, I continue to drive business transformation in the specialty lending space, focusing on digital solutions and growth.

2. My earlier career included key leadership positions at KPMG, Accenture, and Barclays, where I spearheaded major digital banking and payments

initiatives. At KPMG, I provided strategic vision for KPMG's US FinTech service line and performed effectively as an active member of the Global FinTech leadership team. I served many clients, including Global Banks, and was involved in a variety of different strategic initiatives ranging from Digital Transformation to launching innovative Payments, Lending and FinTech solutions. Throughout my career, I have excelled in building high-performance teams, forging strategic partnerships, and delivering transformative solutions across the financial services industry. I have also been named as an inventor in three patent applications. Two in the field of mobile payments wallet systems, and one in CDMA wireless systems.

3. I have been hired by DH International Ltd. ("DH International" or "Patent Owner") to investigate and opine on certain issues relating to U.S. Patent No. 7,628,333 to Gaillard *et al.* (Ex. 1001, the "'333 Patent").

4. I understand that the '333 Patent was assigned to DH International.

5. I am over 21 years of age. If I am called upon to do so, I would be competent to testify as the matters set forth in my declaration.

6. In this declaration, I discuss the technology related to the '333 Patent, including an overview of that technology as it was known at the time of the earliest priority date claimed by the '333 Patent, which is April 14, 2003. This overview of

the technology provides some of the bases for my opinions with respect to the '333 Patent.

7. This declaration is based on the information currently available to me. To the extent that additional information becomes available, I reserve the right to continue my investigation and study.

8. In forming my opinions, I have relied on information and evidence identified in this declaration, including without limitation the '333 Patent (Ex. 1001), the prosecution history of the '333 Patent (Exh. 1002), and prior art including:

9. U.S. Patent Application No. 7,278,581, "Electronic credit card-ecc" (Exh. 1005) ("*Ong*").

10. PCT International Publication No. WO 1990/013096 A1, "Credit card with communication capability" (Exh. 1006) ("*Hoff*").

11. U.S. Patent No. 7,337,326, "Apparatus and method for effecting secure physical and commercial transactions in a contactless manner using biometric identity validation" (Exh. 1007) ("*Palmer*").

12. U.S. Patent No. 7,376,583, "Device for making a transaction via a communications link" (Exh. 1008) ("*Rolf*").

II. SUMMARY OF OPINIONS

13. The challenged claims 1-13 (“Challenged Claims”) of the ’333 Patent generally describe an approach for “a portable electronic device capable of alternate data conveyance operations responsive to an invariable activation command.” Exh. 1001, 1:9-11.

14. It is my opinion that each of the Challenged Claims of the ’333 Patent can be distinguished from the combinations of the four references as asserted in grounds 1-3 of the Petition and hence are not obvious under 35 U.S.C. § 103(a).

III. QUALIFICATIONS AND EXPERIENCE

A. Education and Work Experience

15. I have a Masters of Science in Engineering and Management from Massachusetts Institute of Technology (MIT), a Master of Science and a Bachelor of Science in Electrical Engineering from Texas A &M. Additional details regarding my education, work experience, and technical consulting experience are set forth in my CV, attached as Exhibit A.

16. I have extensive experience with financial services and payment systems. I developed and designed payments wallet for Barclays U.S. from 2012 to 2015 as the Director of Digital Payment Products. I have also worked for Accenture and then KPMG between 2015-2019. I was responsible for product development

services for financial services, technology, and retail clients, in addition to KPMG's FinTech service line as a member of KPMG's Global FinTech Leadership team. After KPMG, I was a Managing Director for hundredX, LLC from 2019-2023, where I was responsible for providing professional services to a number of clients including Financial Services and Payments companies.

17. From 2024 to the present, I work at autoMHatic Financial as its Chief Operating Officer and Chief Product Officer on digital transformation of the business along with implementing artificial intelligence across operations and products.

18. I am a co-inventor of U.S. patent application No. 13/647,997, "Mobile Wallet System," filed on October 9, 2012; U.S. patent application No. 13/725,061, "Mobile Commerce Business System and Method for Sharing Merchant Content and Creating a Customer Index," filed on December 21, 2012; and U.S. patent 7,200,115, "Method of Managing Non-acknowledgement Responses," filed on May 17, 2002.

19. Because of my background, training, and experience, I am qualified as an expert to explain the background of the technology encompassed by the '333 Patent as well as the meaning that the claim terms of the '333 Patent discussed herein would have had to a person of ordinary skill in the art in 2003 reading the claims in light of the specification and file history.

20. I have reviewed U.S. Patent No. 7,628,333 and its file history. I have also reviewed the documents cited in the Petition.

B. Compensation

21. DH International is compensating me for services I am providing in connection with this Petition for *inter partes* review of the '333 Patent at a rate of \$675.00 per hour. The compensation is not contingent upon my performance, the outcome of the *inter partes* review or any other proceeding, or any issues involved in or related to the *inter partes* review.

C. Documents and Other Materials Relied Upon

22. The documents on which I rely for the opinions expressed in this declaration are documents and materials identified in this declaration, including the '333 Patent, the prosecution history of the '333 Patent, the prior art references and information discussed in this declaration, and any other references identified explicitly in this declaration or the Petition (Paper 1), in their entirety, even if only portions of these documents are discussed here in an exemplary fashion.

IV. STATEMENT OF LEGAL PRINCIPLES

23. Patent Owner's counsel has advised me of the following legal principles:

A. Claim Construction

24. Patent Owner's counsel has advised me that the words of a claim are generally given their ordinary and customary meaning in view of the specification, as it would have been understood by a person of ordinary skill in the art at the time of the invention.

B. Anticipation

25. Patent Owner's counsel has advised me that for a patent claim to be valid, the claimed invention must be novel. Counsel has further advised that if every element of a claim is disclosed in a single prior art reference, then the claimed invention is anticipated and not novel, and, therefore is not patentable according to pre-AIA 35 U.S.C. § 102, effective before March 16, 2013.

C. Obviousness

26. Patent Owner's counsel has also advised me that obviousness under pre-AIA 35 U.S.C. § 103, effective before March 16, 2013, is a basis for invalidity. I understand that where a prior art reference discloses less than all of the limitations of a given patent claim, that patent claim is invalid if the differences between the claimed subject matter and the prior art reference are such that the claimed subject matter as a whole would have been obvious at the time the invention was made to one of skill in the art. Obviousness can be based on a single prior art reference or a combination of references that disclose all limitations of the claimed invention.

27. I understand that obviousness is not driven by a rigid formula but is a flexible inquiry that reflects the fact that one of skill in the art exercising ordinary creativity may find a variety of reasons to combine the teachings of different references. I understand that a non-exclusive list of possible factors that may give one of skill in the art a reason to combine references includes any of the following: combining elements according to known methods to yield predictable results; simple substitution of known elements to obtain predictable results; use of known techniques to improve similar devices in the same way; applying known techniques to known devices ready for improvement to yield predictable results; choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success; known work in one field of endeavor prompting variations of it for use in the same field; and teaching in the prior art that would have led one of ordinary skill to combine prior art reference teachings to arrive at the claimed invention.

D. Dependent Claims

28. Patent Owner's counsel has further advised me that dependent claims include all the elements from the claims on which they depend.

V. LEVEL OF ORDINARY SKILL IN THE ART

29. I understand from Patent Owner's counsel that the claims and specification of a patent must be read and construed through the eyes of one of skill

in the art at the time of the priority date of the claims. I have also been advised that to determine the appropriate level of skill, the following factors may be considered: (a) the types of problems encountered by those working in the field and prior art solutions to it; (b) the sophistication of the technology in question, and the rapidity with which innovations occur in the field; (c) the educational level of active workers in the field; and (d) the educational level of the inventor.

30. The Abstract of the '333 Patent acknowledges that the alleged invention is “a portable electronic device capable of alternate data conveyance operations responsive to an invariable activation command.” Ex. 1001, 1:9-11.

31. Therefore, in my opinion, a person of ordinary skill in the art would have some familiarity with underlying technologies involving devices that utilize a transmitter and receiver for transmitting and receiving digital data along with processing that data with a processor. For example, a person of ordinary skill in the art would need to know how to utilize electrical components of the system but would not necessarily need to be an expert on the design of processor-controlled devices. A person of ordinary skill in the art would need to know how configurations for transmitting and receiving information between a portable device and terminal are created and implemented and how to access data on the portable device.

32. Based on my education and experience, I am familiar with the level of knowledge that a person of ordinary skill would have possessed during the relevant time. In my opinion, one of skill in the art for the claimed technology would have a bachelor's degree in electrical engineering or a similar discipline and at least three 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.

VI. BACKGROUND OF THE TECHNOLOGY AND OF THE '333 PATENT

A. Technology at the Time of the '333 Patent

33. I have been asked to provide some context to the technology related to the '333 Patent and the prior art. I understand that the relevant time frame is April 14, 2003, and below, I provide background on how the various technologies were developed and operating up to that time frame.

34. The use of devices such as electronic cards for security was known at the time of the '333 Patent. What was not known, however, was that both the validation of a user and "an activation cue" were used to enable switching with a switching element between data on the electronic card.

35. During prosecution, the patent applicant stated that:

Thus, the contact switch 24 of the card of document D1 has the effect of only activating the read mode portion of the card, and has a quite different function than the control device 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. The stored data is not permitted to flow out of the electronic circuit without being triggered by both user validation (invariable activation command) and an activation cue to initiate a data flow.

36. 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 data is accessible 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 data accessible is switched to a second set of data [by the switching element].” *See* Exh. 1001, 7:4-7.

37. The “activation cue” is a predetermined indication for switching what data will be accessed. It is an indicator, “for example, a predetermined bit sequence.” *Id.*, 6:1-3.

B. Challenged Claims

38. Petitioner challenged claims 1-13 of the '333 Patent. *See* Paper 1, p.2. Claims 1, 10, and 11 are independent. Claims 2-9 and 12-13 depend from claims 1 and 11, respectively. Exh. 1001, 9:61-13:27.

C. Priority Date

39. The '333 Patent was granted based on PCT application No. PCT/IB03/01523, filed on April 14, 2003. Exh. 1001, cover. Counsel has informed me that the prior art references cited in Grounds 1-3 in the Petition are prior art to the '333 Patent based on the April 14, 2003 priority date. If evidence in this proceeding of an earlier invention date is uncovered, I reserve the right to offer additional opinions and testimony to respond to such evidence.

D. Identification of the Prior Art and Summary of Opinions

40. As explained below, it is my opinion that the following prior art references, and in the combinations provided by Petitioner, fail to disclose all technical features of the Challenged Claims of the '333 Patent, thus the Petition fails to render any Challenged Claims unpatentable:

- Exh. 1005 *Ong*
- Exh. 1006 *Hoff*
- Exh. 1007 *Palmer*

- Exh. 1006 *Rolf*

1. Ong

41. U.S. Patent No. 7,278,581 (“*Ong*”) (Exh. 1005) was filed on October 15, 2002 and issued on October 9, 2007.

42. *Ong* describes an Electronic Credit Card (ECC) device that enables transmission/reception of data and/or digital information to/from a host computer via a Terminal Station (TS). The TS includes Teller Machines in supermarkets/shopping complexes, Automatic Teller Machines (ATM), EFTPOS devices and proprietary transceiver devices developed by Creative On-Line Technologies Limited for PC interface. *See* Exh. 1005, Abstract. The ECC has a timer for use when verifying a user’s identity. *See Id.* 1:62-64. A “disablement means for disabling use of the electronic credit card if a predetermined number of attempts verifying the identity of the user fail.” Exh. 1005, 1:65-2:3. Further, “a unique authorization code is generated when the user’s identity is verified.” Exh. 1005, 1:54-55. The unique authorization code may be generated in synchronization with the TS. Exh. 1005, 2:4-6.

43. *Ong* describes authentication of the ECC user, and, as part of that authentication for accessing the ECC, *Ong* may synchronize with the transaction station and conduct a transaction, if verified. *Ong does not* address accessing

selected data in the ECC after authentication and in response to a cue signal from a transaction station.

2. Hoff

44. PCT International Publication No. WO 1990/013096 (*Hoff*) (Exh. 1006) was filed on March 20, 1990.

45. *Hoff*¹ describes an electronic card approach using point-to-point radio communication. *See* Exh. 1006, p. 7, lines 15-17. “The point-to-point communication circuitry can be time slot protocol paging circuitry such as that in certain time slot protocol radio pagers.” Exh. 1006, Abstract. “The radio receiver 1 and the antenna 1a are built to receive messages or signals transmitted from commercial radio stations as an FM subcarrier in accordance with the time slot protocol.” Exh. 1006, p. 10, lines 2-5. *Hoff* states that it can operate as a point-to-point pager. *See Id.* 15-16. Further, using only a receiver supports the “key aspects of the device[, which] are the ability to individually address a large number of receivers and the ability to operate with very low power drain. *Id.* p.17, ln 9-12.

¹ Citing Hoff’s page numbers is to the Exhibit page numbers and not the PCT page number.

3. Palmer

46. U.S. Patent No. 7,337,326 (“*Palmer*”) was filed on March 27, 2003.

47. *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.

4. Rolf

48. U.S. Patent No. 7,376,583 (“*Rolf*”) was filed on August 10, 2000. *Rolf* discloses a system for performing financial transactions, such as sales transactions at a point of sale terminal, via a wireless communications link. Exh. 1008, 1:16-26. The system includes a “wireless communication device,” which “communicates with [a] point of sale terminal either directly ... or through a central processing facility ... for processing of a financial sales transaction.” Exh. 1008, 3:13-25. The system provides communication links, allowing transactions to occur using a handheld electronic device, such as cellular telephones or pagers. Exh. 1008, 1:16-26.

VII. CLAIM CONSTRUCTION

49. I understand from Patent Owner's counsel that patent claims generally are given their plain and ordinary meaning to one of skill in the art as of the priority date of the analyzed claim. I also understand from Patent Owner's counsel that the intrinsic record of the Patent itself may help define that ordinary meaning. However, the intrinsic record may also reflect the patentee's clear desire to be his own lexicographer and depart from the ordinary meaning of a claim term.

50. To the extent that a claim term of the '333 Patent is used in the same way as the same term in the relevant standards, technical specifications, and/or prior art, it is my position that such claim term should be given its plain and ordinary meaning to one of skill in the art, which is reflected in the relevant standards, technical specifications, and/or prior art.

51. 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.*

52. I applied a plain and ordinary meaning in my analysis of these claim terms. I also reserve the right to offer additional opinions on claim construction in response to arguments that may be made by Petitioner.

VIII. UNPATENTABILITY OF THE '333 PATENT'S CHALLENGED CLAIMS

53. In my Declaration, I analyze the following bases for invalidity:

Grounds	Basis	Challenged Claims
1.	35 U.S.C. § 103 <i>Ong</i> and <i>Hoff</i> .	1-4, 6-9, and 11-13
2.	35 U.S.C. § 103 <i>Ong</i> , <i>Hoff</i> , and <i>Palmer</i> .	5
3.	35 U.S.C. § 103 <i>Ong</i> , <i>Hoff</i> , and <i>Rolf</i> .	10

A. GROUND 1: Obviousness Based on *Ong* and *Hoff*.

54. In my opinion, claims 1-4, 6-9, and 11-13 are not obvious based on *Ong* (Exh. 1005) in view of *Hoff* (Exh. 1006) given what I have been instructed obviousness is. *See supra* ¶¶26-27. As detailed subsequently, *Ong* and *Hoff*, when combined, fail to disclose all limitations of claims 1-4, 6-9, and 11-13. Furthermore, a POSITA would not have been motivated to use *Ong*'s Electronic Credit Card-ECC wireless communication, in combination with *Hoff*'s Credit Card with Communication Capability using Point-to-Point communication.

1. No Motivation to Combine

55. *Ong*'s approach requires a communication means described as an "infrared communication device, magnetic communication device, or radio frequency communication device." Exh. 1005, 3:44-46. *Ong*'s wireless communication is

depicted as two-way communication in Figure 2 (*See* Exh. 1005, Figure 2). *Ong* describes one wireless communication path established between the electronic credit card and ATM using a communication means. The communication means is described as an “infra red communication device, magnetic communication device, **or** radio frequency communication device under the control of firmware” (Exh. 1005, 3:44-46, emphasis added), thus the word “or” teaches that only one of the devices is used at a time. *See* Exh. 1005, Figure 3, 3:44-47. Further supporting this assertion, *Ong* figures 2 and 3 only show single bidirectional communications between the ECC and ATMs/transceiver (modem) device connected to a personal computer. *See* Exh. 1005, Figures 2, 3. Figures 4-9 are listed as alternate embodiments of the ECC with each embodiment having a pin controlled infra-red, radio frequency, magnetic induction, wire contact, or magnetic strip telecommunication device. Further, Figures 1 and 10-12, do have a combination of infra-red, radio frequency, and magnetic induction along with some type of PIN entry, finger print Scanner, or eyeball retina scanner. No description of the operation of the devices of using more than one type of communication is provided. With respect to Figure 12, the specification states that “[t]he infra red communication device, magnetic communication device, or radio frequency communication device forms the communication means. Exh. 1005, 3:45-48. From the description contained in *Ong*,

a POSTIA would understand only one device would be active as a communication means if multiple devices were present.

56. *Hoff* describes using point-to-point radio communication. See Exh. 1006, p. 7, lines 21-25. “The point-to-point communication circuitry can be time slot protocol paging circuitry such as that in certain time slot protocol radio pagers.” Exh. 1006, p. 8, lines 5-7. “The radio receiver 1 and the antenna 1a are built to receive messages or signals transmitted from commercial radio stations as an FM subcarrier in accordance with the time slot protocol. Exh. 1006, p. 10 lines 2-5. *Hoff* states that it can operate as a point-to-point pager. See Exh. 1006, pp.15-16, lines 24-2. Further, using only a receiver supports a “key aspects of the device are the ability to individually address a large number of receivers and the ability to operate with very low power drain.” *Id.* 17.

57. The *Hoff* reference is incapable of transmitting any signals, as it only has receivers and not transmitters or transceivers. Element 1 and 31 are point-to-point radio receivers. Exh. 1006, p. 10, lines 9-11; p. 14, lines 1-20. “[P]oint-to-point radio receiver 31 is further described as including a radio receiver 56, a subcarrier data demodulator 55 which digitizes the signal from the receiver and then extracts the required information, a decoder 54 which decodes the protocol, and a microprocessor 53. Exh. 1006, p. 17, lines 13-18.

58. I do note that element 31 in Hoff is also described as "... [a] point-to-point communication device 31 designed to receive and transmit to the circuitry 32." Exh. 1006, p.17, lines 2-4(*emphasis added*). Receiving and transmitting to circuitry 32 is not receiving and transmitting as a transceiver would with a communications network. Element 31 only receives RF signals. A POSITA would understand that the RF signal received is further processed to access the data contained in the RF signal, and the resulting data is outputted to the circuitry and microprocessor within Hoff. Hence, the "transmitting to the circuitry 32" is not a transmitter that transmits the RF signal instead, it is the output from the receiver after demodulation and decoding, which is controlled by a microprocessor 53. See Exh. 1006, p. 17, lines 13-18.

59. A separate radio transmitter is mentioned in an alternate embodiment that is turned on when a card is stolen to aid in tracking the thief. See Exh. 1006, p. 15, lines 10-16. However, that transmitter is activated by a signal received by the point-to-point communication receiver and is only used to locate a stolen card. See Exh. 1006, p. 15, lines 14-16.

60. Thus, a POSITA would have had no reason or motivation to combine the disclosure of Ong with the limiting receive-only approach of Hoff.

61. The statement of Lipoff asserting that “substituting or supplementing the components in *Ong*, for the advantages *Hoff* advertises: to provide an improved card utilizing point-to-point radio communication,” (Pet., 13) makes no sense. Such a combination negates the key aspect of *Hoff*’s ability to operate with a very low power drain, as such a combination proposed by Lipoff would have transceivers and receivers operating at an increased power drain, directly contradicts *Ong*.

62. Additionally, because the form factor taught in both references is limited in space, the more components and antennae placed within that space increase the complexity and cost of a design, further eliminating any motivation to combine.

63. Such a combination as proposed would require an independent point-to-point receiver for receipt of activation and deactivation of the card and would fail to meet the element [1.d] requirement of a transceiver because *Hoff*, teaches that the point-to-point radio communication only involves a receiver.

64. A POSITA would have no motivation to combine the single transceiver two-way data communication approach of *Ong* with the receiver-only approach of *Hoff*. Even if such a combination was possible, the point-to-point receive-only approach of *Hoff* fails to teach or use “a data transceiver,” as required by the ’333 patent.

2. Independent Claim 1.

65. It is my opinion that the combination of *Ong* in view of *Hoff* does not render claim 1 obvious because all the claim elements are not found in the combined references.

- a. [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”**

66. 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.

67. The 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. The triggering is with the invariable activation command. “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.

68. The Petition mistakenly asserts that “*Ong* discloses the same. Once the user’s identity has been validated by the user verification means, a unique authorization code is generated. *Ong*, 3:51-59. According to the Petition, *Ong*’s authorization code is an ‘invariable activation command’ because it is automatically and inevitably generated once the user is verified.” Pet., 22.

69. I can find no support where a code is a command. A plain meaning of code I looked up on the Merriam-Webster’s web site (www.merriam-webster.com) is 3(b) “a system of symbols (such as letters or numbers) used to represent assigned and often secret meanings.” I chose definition 3(b) because it deals with characters and security, just as the authorization code in *Ong* deals with security. For completeness, other meanings of code include, 3(a) a system of signals or symbols for communication; 3(c) coded language: a word or phrase chosen in place of another word or phrase in order to communicate an attitude or meaning without stating it explicitly.

70. The *Ong* patent describes “a communication means for communicating with a transaction station to provide the transaction station with account details of the user and the authorization code to facilitate an electronic fund transfer transaction.” Exh. 1005, 1:58-61. “The means for generating unique authorization code then generates the authorization code which is provided along with the user's account details, to the communication means which communicates these to a transaction station to facilitate an electronic funds transfer transaction.” Exh. 1005, 1:58-61.3:54-59. *Ong* states that the authorization code is provided to the communication means. However, regardless of whether *Ong*'s communication means has received an authorization code, the communication means can access the data whenever it is needed.

71. Communication with the transaction station is not limited by the exclusion of the authorization code. Rather, the authorization code is only needed for *Ong*'s communication means *to continue with* an electronic funds transfer transaction. *See* Exh. 1005, 3:60-61. The communication means already had access to the data as the authorization code has been generated. Exh. 1005, 4:49-55. One skilled in the art at the time of the invention would recognize that a code may be part of a larger structure such as a command (i.e., provided along with other data such as the user's account details). For example, an authorization code may be incorporated

into a command or transaction message for a transaction that also includes account data. However, Ong's authorization code is only identifier data.

72. My view of the authorization code not being the claimed invariable activation command is further supported in the Petition and Mr. Lipoff's declaration because both described that the code has to be "provided ... to the communication means and prevent it from being communicate[d] ... to a transaction station to facilitate an [EFT] transaction." *See* Pet., 22; Exh. 1003, ¶89. The authentication code, according to Lipoff, has to be communicated to (or not communicated to) the transaction station. The authorization code itself does not result in any action or transaction occurring and is not an invariable activation command.

73. The disablement argument is not relevant to the selection of a data exchange, for example, between a user of the portable electronic device or the data exchange device. *See* Exh. 1001, 7:4-14. As the "invariable activation command will trigger alternate data conveyance operations responsively to the reception or non-reception of an activation cue, so alternate commands within electronic circuit 14 will occur depending on the data conveyance operation type." Exh. 1001, 7:47-54. Rather, Petition asserts that *Ong* teaches the cue is an on/off switch for communication, as communication is prevented. *See* Petition 22. Separate activation

and deactivation messages in *Ong* are not “an activation cue” as described in the ’333 patent.

74. The Petition incorrectly asserts that “*Ong* does not indicate the user verification is dependent on the disable means (§VI.A.3.G(1.e)).” Pet., 22. *Ong* states:

Preferably the electronic credit card includes a disablement means for disabling use of the electronic credit card if a predetermined number of attempts [to] verify the identity of the user fail. Preferably the disablement means is activated remotely by an issuer of the electronic credit card or other authority.

Exh. 1005, 1:65-2:3. Also:

The electronic credit card verifies the identity of the user before it is activated. The electronic credit card will be disabled if a predetermined number of attempts to gain access to its operation fail and this will prevent fraud in the event that an electronic credit card is stolen. An authorising distributor or other authorised body could re-initialise the electronic credit card through a controlled management system used to issue the electronic credit card.

Id. 4:51-58. Therefore, contrary to Petitioner, *Ong* does indicate the user verification is dependent upon the verification of a user and hence the disable means.

75. A POSITA would understand that, if the ECC of *Ong* is disabled, for example, due to failed verification attempts, then the card is deactivated, and the following '333 patent claim step cannot occur:

a control device operatively linked to said electronic circuit, with an invariable activation command being issued when said control device is selectively triggered;

Exh. 1001, 9:65-10:2. In *Ong*, the ECC has been disabled before the invariable activation command verification. Further, the re-initialization of the ECC in *Ong* is not by the user or user's actions but by the card issuer or other authority. *See* Exh. 1005, 4:51-58.

76. The *Hoff* reference was only used by Petitioner to assert a control device being operatively linked to the electronic circuit, but not for data conveyance.

77. I also note that Ground 1 is based on only two references *Ong* and *Hoff*, but Petitioner also relies on *Shogase*, a third reference. *See* Pet., 24.

78. For these reasons, the "code," as described in the *Ong* reference, is not an invariable activation command as required by the Challenged Claims of the '333 Patent.

79. Also, for these reasons, the disablement described in *Ong* is not the claimed selection between two types of data exchange or data conveyance operation type as required by element [1.b]. *See* Pet., 22.

b. [1.d.ii] “said data transceiver being ... for receiving a selectively emitted activation cue from a source external to said portable electronic device”

80. The Petition states that “[i]t would have been obvious to a POSITA to similarly allow the card to be reenabled by remotely deactivating the disablement means.” Petition 31 (citing Lipoff ¶107). Yet, this statement contradicts earlier positions taken in the Petition and by Mr. Lipoff. *See* Pet., 22; Exh, 2003 ¶89.

81. The Petition describes *Ong*’s “disablement” as stopping the “code” that is a unique identifier for the authenticated user from being transmitted. If the unique identifier is not transmitted, no external device or devices know the user of the portable electronic device has been authenticated. *See* Lipoff ¶107. But *Ong*’s disablement is of the ECC itself; it is not a disablement of generating a code that the transceiver has access to and deciding not to transmit it.

82. A POSITA would know that because “disablement” stops transfer of the “code,” without the “code,” there would be no way to ensure the user is a validated user. Otherwise, a stolen card may be improperly reenabled remotely.

83. The Petition is further contradictory when it states:

One reason offered for disabling the card is “if a predetermined number of attempts to verify the identity of the user fail.” *Ong*, 1:65-2:3. A POSITA would have recognized that permanently disabling a card based on failed user verification would be undesirable. Lipoff ¶107.

Ong confirms that “[a]n authorizing Distributor or other authorized body could re-initialize the electronic credit card” once disabled. *Ong*, 4:46-58.

Petition 31.

84. According to the Petition:

Once the user’s identity has been validated by the user verification means, a unique authorization code is generated. *Ong*, 3:51-59. This authorization code is an “invariable activation command” because it is automatically and inevitably generated once the user is verified.

Id., 22. According to the Petition’s interpretation of *Ong*, the only time an “invariable activation command” is generated is upon user verification. Therefore, if a reactivation occurs because of failed verification attempts, the previous claim element [1.b] could not have been met, as no successful verification has occurred.

85. Additionally, the Petitioner’s combination of *Ong* and *Hoff* as using the point-to-point radio communication of *Hoff*, fails to use a transceiver as required in the claim element [1.d]. *See Supra* ¶¶56-59.

86. *Hoff* is cited in the Petition as using point-to-point radio communication to indicate whether a card is valid:

Hoff describes “an improved credit card which utilizes point to point radio communication to provide an indication of whether a card is valid.” *Hoff* 5:15-17; *Lipoff* ¶109. Like *Ong*, *Hoff* describes a

mechanism “to update or deactivate a credit card from a remote location by sending signals over the communication channel” such that the “card can be deactivated or updated even while the card is in the user’s pocket or wallet.” *Hoff* 6:7-12; *id.*, 15:1-18 (“The point-to-point communication device 31 is designed to receive and transmit to the circuitry 32, a sequence of numbers. This sequence of numbers either resets the card’s ‘open to buy’ limit or it deactivates the card.”).

Pet., 32. The use of point-to-point radio communication (receive only) occurs regardless of validation and it even occurs when in a user’s pocket, regardless of whether an invariable activation command has occurred.

87. Therefore, *Ong* cannot operate as asserted in the Petition, and *Hoff*’s description of a point-to-point operation is limited to a receiver-only approach and fails to disclose the transceiver as required by the claim element and the combined references of using *Hoff*’s point-to-point approach in *Ong* fail to teach this claim limitation [1.d].

- c. [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”

88. The disablement described by Petitioner and Mr. Lipoff for element [1.d.ii] is contradictory (*see supra* ¶¶81-87) and the same analysis applies to this element also.

89. Petitioner’s expert describes the use of the “signal” in the figure on page 35 of the Petition as a Point-to-Point transmission: “[t]o facilitate activation or deactivation, an ‘output 1b of point to point radio receiver 1 is connected to logical circuitry 2.’” Exh. 1003, ¶¶55-56.

90. However, the figure on page 35 of the Petition does not appear in *Ong* or *Hoff*.

91. Contrary to the figure on page 35 of the Petition, the point-to-point signaling taught in *Hoff* is a one-way communication path with the card device that only has a receiver to receive the FM broadcast signals. *See supra* ¶¶56-57.

92. The claims require that the activation cue is “received by said data transceiver” in claim element [1.e] (Exh. 1001, 10:9-14), and point-to-point communication, as described in *Hoff*, is received by an **FM receiver** (not a

transceiver) able to receive broadcast FM signal and hence incorporated into the combination of *Ong* and *Hoff*.

93. The activated state and inactivated states described in the '333 Patent refer to the switching device. "According to the invention, at any given time, switching element 44b will consequently be in either one of the two following states: a) an activated state wherein an activation cue was received by the transceiver 18; or b) an inactive state wherein no activation cue was received by the transceiver." Exh. 1001, 6:18-25.

94. The '333 Patent's switching is for the data flow or data exchange. See Exh. 1001, 6:52-67.

95. By contrast, the *Ong* patent describes a "disablement means" that only appears twice in one paragraph in the summary of the invention. See Exh. 1005, 1:65-2:3. In that one paragraph, *Ong* states that disablement means is for "disabling use of the electronic credit card." A POSITA would understand that disabling the electronic credit card of *Ong* refers to the functioning of the credit card and not switching between data or data flows within the credit card as claimed in the '333 patent.

96. *Ong* describes the disablement of the electronic credit card. Once disabled, the electronic credit card is not working and does not have the ability to take any actions or to conduct a transaction.

97. *Ong* does not describe the enablement of a card. The only way to recover a disabled card is by “[a]n authorizing distributor or other authorized body could re-initialize the electronic credit card through a controlled management system used to issue the electronic credit card.” Exh. 1005, 55-58. A card must be operating to be re-enabled. Re-enablement is not discussed in *Ong* because the card in *Ong* is explicitly disabled to the extent that an issuer has to re-initialize the card to get it working again. This is part of the security in *Ong*.

98. A POSITA would understand that the system in *Ong* that issued the card, once disabled, would have to re-initialize the card, and re-initializing is akin to reissuing the card. As it is the issuer of the card that need to re-initialize disabled cards using the system that issued the card.

99. The Petition asserts that a “POSITA would have recognized that *Ong*’s disablement means is in one of two states: a first state in which the disablement means has not been triggered (activated state) or a second state in which the disablement means has been triggered (inactive state). Lipoff ¶112.” Pet., 34.

However, what *Ong* describes is not the state of a switching device because once disabled, the card cannot be reenabled; it must be re-initialized.

100. Hence, *Ong*'s disablement means is for disablement of the electronic credit card and not the switching as claimed in the '333 Patent.

101. The combination of *Ong* and *Hoff* fail to describe this element.

- d. **[1.g.i] “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.”**

102. Contrary to the Petition's assertion, *Ong*'s generation of an authorization code is not the same as the claimed “invariable activation command.”

See supra ¶¶67-70.

103. *Hoff*'s point-to-point radio receiver is not a transceiver as asserted in the Petition. *See* Petition 42. A transceiver receives and transmits but a receiver only receives.

104. *Hoff* only describes a FM receiver. *See supra* ¶¶56-57.

105. Indeed, it would not have been practical at the time of invention to put an FM transmitter and antenna in a card that could respond to a commercial FM broadcast. It would be similar to putting a single-station HAM radio into a card. The

component size and power requirements for an FM transmitter or transceiver to respond with a signal similar to the commercial FM received signal is too great, and a POSITA would understand that it would not be possible.

106. This claim element requires “the control device being selectively triggered to issue an invariable activation command.” Exh. 1001, 10:17,18.

107. Because *Ong*’s authorization code does not satisfy the claims requirement for an invariable activation command, and *Hoff* fails to provide the claimed transceiver, the combination of *Ong* and *Hoff* does not describe this claim element.

- e. **[1.g.ii] “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”**

108. Because *Ong*’s authorization code is not an “invariable activation command” and the receiver in the point-to-point communication of *Hoff* is not a transceiver, this limitation also is not satisfied. *See supra* ¶¶56-57; 67-75.

109. The Petition asserts that:

When combined with *Ong*’s user verification means, it would have been obvious to a POSITA to display “VOID” or an “appropriate note” on the display in response to a user

verification (selective triggering) to convey an appropriate message to the user, allowing a user to understand that status of their transaction. Lipoff, ¶133; §VI.A.2. No financial transaction would be completed when *Ong's* user verification means generates the “authorization code” and the card is in the inactive state, and it would have been obvious to display this data to the user on the UI to convey that information upon entry of the PIN. Lipoff, ¶133. At very least, when combined with Hoff, it would have been obvious for *Ong's* display to present the “VOID” indicator or other “appropriate note” disclosed in Hoff as an indication no transaction was completed upon *Ong's* PIN entry (selective triggering). Id.

Pet., 45. This paragraph is contradictory to:

A POSITA would have recognized that *Ong's* disablement means is in one of two states: a first state in which the disablement means has not been triggered (activated state) or a second state in which the disablement means has been triggered (inactive state). Lipoff, ¶112.

Pet. 34, where the second state in which the disablement means has been triggered (inactive state). If *Ong* describes disabling the ECC as to put in the inactive state, then no action is taken by the ECC, and no authorization code can be generated by the user verification means.

110. First, ignoring the fact the ECC is disabled, the message displayed is in response to the user's failed verification because it is in response to "a user verification". But, the "code" is only generated if the user is verified. *See* Exh. 1005 3:51-59. A transaction does not occur in response to the verification means in *Ong*. The assertion that a message would be displayed to indicate that no transaction was completed means the user was not verified when a transaction was started. If a transaction was started, then data was conveyed not to the portable electronic device holder but to the external data exchange device. So, no transaction completed message indicates that a transaction was started, but it can only start if the "code" has been generated since a code, according to the petition, is always generated.

111. Second, if the display of the data to the user on the UI conveys that information upon entry of the PIN, then the display of data occurs before the code (the purported invariable activation command) is created according to the Petition.

112. Third, if the PIN is invalid, the code (invariable activation command) is not created.

113. It is my opinion that the displaying of the data on the UI upon entry of the PIN fails to meet the requirement of this element.

114. Element [1.g.i] requires a switching element. The switching element has not been identified for this element. Also, the Petition describes switching occurring in only one direction but ignores the claim limitation in the other direction.

115. It is also my opinion that no switching element, as claimed in the '333 Patent, is disclosed for this element.

116. It is my opinion that the combined references of *Ong* and *Hoff* fail to teach all the elements of claim 1.

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

117. Claim 2 is a dependent claim and incorporates all the elements of claim 1.

118. All the elements of claim 1 are not disclosed in the combined references of *Ong* and *Hoff*. See *supra* ¶¶65-116.

119. It is my opinion that the combination of *Ong* and *Hoff* fails to describe claim 2 because of its dependence upon claim 1, and the elements of claim 1 are not described in *Ong* and *Hoff*.

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

120. Claim 3 is a dependent claim and incorporates all the elements of claim 1.

121. All the elements of claim 1 are not disclosed in the combined references of *Ong* and *Hoff*. See *supra* ¶¶65-116.

122. It is my opinion that the combination of *Ong* and *Hoff* fails to describe claim 3 because of its dependence upon claim 1, and the elements of claim 1 are not described in *Ong* and *Hoff*.

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

123. Claim 4 is a dependent claim and incorporates all the elements of claim 1.

124. All the elements of claim 1 are not disclosed in the combined references of *Ong* and *Hoff*. See *supra* ¶¶65-116.

125. It is my opinion that the combination of *Ong* and *Hoff* fails to describe claim 4 because of its dependence upon claim 1, and the elements of claim 1 are not described in *Ong* and *Hoff*.

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.”

126. Claim 6 is a dependent claim and incorporates all the elements of claim 1.

127. All the elements of claim 1 are not disclosed in the combined references of *Ong* and *Hoff*. *See supra* ¶¶65-116.

128. It is my opinion that the combination of *Ong* and *Hoff* fails to describe claim 6 because of its dependence upon claim 1, and the elements of claim 1 are described in *Ong* and *Hoff*.

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

129. Claim 7 is a dependent claim and incorporates all the elements of claim 1.

130. All the elements of claim 1 are not disclosed in the combined references of *Ong* and *Hoff*. *See supra* ¶¶65-116.

131. Claim 7 requires an electronic circuit having a switching element. A POSITA would understand a switching element in an electronic circuit to be a physical switching element in the electronic circuit.

132. The *Ong* reference does not describe a physical switching element.

133. The Petition cites *Hoff*, 5:25-6:5 for *Hoff*'s circuitry. See Pet. 52. It is admitted that *Hoff* discloses circuitry, but the claim element is a switching element in the electronic circuit, and the switching element is not simply a switch anywhere

in a circuit. Rather, it has a specific function as defined in the claim element [1.e], and that is not found in *Hoff*.

134. A POSITA would understand that *Ong* does not provide any method for remote activation, as the only way to reactivate the card is for the issuer to re-initialize the card. Exh. 1005, 4:55-58.

135. It is my opinion that the combination of *Ong* and *Hoff* fails to describe claim 7 because of its dependence upon claim 1 and all of the elements of claim 1 are not described in *Ong* and *Hoff*. Also, a physical switch element is not identified in the circuitry of *Ong* and *Hoff*.

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.”

136. Claim 8 is a dependent claim and incorporates all the elements of claims 1 and 7.

137. All the elements of claims 1 and 7 are not disclosed in the combined references of *Ong* and *Hoff*. *See supra* ¶¶65-116 and ¶¶129-135.

138. It is my opinion that the combination of *Ong* and *Hoff* fails to describe claim 8 because of its dependence upon claims 1 and 7 and the elements of claims 1 and 7.

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

139. Claim 9 is a dependent claim and incorporates all the elements of claim 1.

140. All the elements of claim 1 are not disclosed in the combined references of *Ong* and *Hoff*. *See supra* ¶¶65-116.

141. It is my opinion that the combination of *Ong* and *Hoff* fails to describe claim 9 because of its dependence upon claim 1, and the elements of claim 1 are not described in *Ong* and *Hoff*.

10. Independent claim 11

a. [11.pre.v]: “communication ports operatively link to said circuit”

142. It is noted that the Petition cites a reference, *Fare*, not included in Ground 1. Pet., 58.

143. A POSITA would understand the communication ports in the ‘333 patent would be for two-way communication as the claims require a data transceiver, which is a two-way communication device. *See* Exh. 1001, 10:3.

144. The point-to-point communication of *Hoff* is only one way with the FM signal only capable of being received. *See supra* ¶¶56-57.

b. [11.pre.vi]: “a switching element operatively linked to said electronic circuit and being in a default inactive state”

145. As described in the '333 Patent and required by the claims, a switching element is not described in either the *Ong* or *Hoff* reference. *See supra* ¶¶104-116.

146. A POSITA would understand that *Ong* does not provide any method for activation through the transaction station, as the only way to reactivate the card is for the issuer or authorized distributor to re-initialize the card. Exh. 1005, 4:55-58. The user is not able to re-initialize the card. A merchant is not able to re-initialize the card. *Ong* explicitly states the “electronic credit card can be disabled at a transaction station through a system control function by the issuing company or organization. Exh. 1005, 4:59-61. Re-initialization must occur, not through a system control function at a transaction station, but a separate controlled management system used to issue the electronic credit card. *Id.* Therefore, user action or validation of a user occurs with re-activation, no authorization code is generated or used.

147. The approach of *Hoff* for the re-activation of a card does not use a “data transceiver” to receive the “activation cue,” it uses a point-to-point receiver. “[A]n activation cue having been received by said data transceiver” is required by the claims of the '333 patent (for example, element 1.d). Exh. 1001, 10:11-12.

148. The combination of *Ong* with *Hoff* fails to describe a switching element.

149. In my opinion, the switching element is not found in the combined reference of *Ong* and *Hoff*.

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

150. The portable electronic device is required to be waiting for an activation cue. Exh. 1001, 12:3-4.

151. A POSITA would understand that a “cue” would not change due to the state of the card. Multiple messages (disable/enable) sent depending upon the state of the card are not a cue. Rather, cue is a broadcast signal that is always ‘on’ (or in transmitter mode) and that can be listened to by a device configured to listen to such messages.

152. Activation and deactivation messages are not a “cue” as different messages are used and not a single “cue.”

153. It is my opinion that an activation cue is not taught or described in *Ong* and *Hoff*.

- d. [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”**

154. The combination of *Ong* and *Hoff* fails to teach an activation cue. *See supra* ¶¶151-153.

155. The claim element requires the state of the switching element to change. Exh. 1001, 5-7.

156. The Petition describes a state of the card changing, but it fails to identify the claimed switching element.

157. The Petition improperly equates a card issuer re-initializing a card in *Ong* as reactivation. Pet. 64. Re-initializing a card is not reactivation. *See supra* ¶¶98-100.

158. The Petition asserts that the signal received periodically in the *Hoff* reference is an activation signal, and receiving the signal keeps the card described in *Hoff* active. See Pet. 64. This is contrary to what the claim requires; “if an activation cue is received at one of said communication ports, changing the state of the said switching element....” Exh. 1001, 12:5-7. In *Hoff*, if the signal is NOT received, the card is deactivated. As long as the signal is periodically received, the card is not deactivated.

159. It is my opinion that claim element [11.b] is not described in the combination of *Ong* and *Hoff*, and no switching element is identified in *Ong* and *Hoff*.

- e. **[11.d]: “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”**

160. The combination of *Ong* and *Hoff* fails to teach the switching element.
See supra ¶¶151-153.

161. It is my opinion that claim element [11.d] is not described in the combination of *Ong* and *Hoff*, as no switching element is identified in *Ong* and *Hoff*.

- f. **[11.e]: “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”**

162. The combination of *Ong* and *Hoff* fails to teach the switching element.
See supra ¶¶151-153.

163. It is my opinion that claim element [11.e] is not described in the combination of *Ong* and *Hoff*, as no switching element is identified in *Ong* and *Hoff*.

11. 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”

164. Claim 12 is a dependent claim and incorporates all the elements of claim 11.

165. The Petitioner asserts that “*Hoff* explicitly states its radio transceiver and antenna (communication port) is used to update the open-to-by status of the card. *Id.*, 6:7-12, 15:1-18.” Pet. 67. However, the term transceiver does not appear in the *Hoff* reference. The point-to-point communication device 31 only has a radio receiver 56. Exh. 1006, 17:12-18. The point-to-point communication device 31 can receive and transmit to the circuitry 32 (*Id.* 17:3-4), but that is not to a wireless transmitter or antenna, and no transceiver or transmitter is connected to the antenna of *Hoff*.

166. All the elements of claim 11 are not disclosed in the combined references of *Ong* and *Hoff*. *See supra* ¶¶142-163.

167. It is my opinion that the combination of *Ong* and *Hoff* fails to describe claim 12 because of its dependence upon claim, and the point-to-point receive only communication is not able to be used for data exchange with the external data exchange device.

12. 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.”

168. Claim 13 is a dependent claim and incorporates all the elements of claim 11.

169. All the elements of claim 1 are not disclosed in the combined references of *Ong* and *Hoff*. *See supra* ¶¶142-163.

170. It is my opinion that the combination of *Ong* and *Hoff* fails to teach all the claim elements of claim 13 because these two reference also fail to teach all the claim elements in claim 11.

GROUND 2: Obviousness Based on *Ong*, *Hoff*, and *Palmer*.

1. No Motivation to Combine.

171. There is no motivation to combine *Ong* and *Hoff*. *See supra* ¶¶55-64.

172. The *Palmer* reference is only used for its discussion about biometrics.

173. The elements missing in the combination of *Ong* and *Hoff* are not remedied with the addition of *Palmer*.

174. It is my opinion that there is no motivation to combine the *Ong*, *Hoff*, and *Palmer* references at least because, if such a combination is possible, claim elements would still be missing.

2. **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.”**

175. Claim 5 is a dependent claim and incorporates all the elements of claims 1 and 4.

176. All the elements of claims 1 and 4 are not disclosed in the combined references of *Ong* and *Hoff*. *See supra* ¶¶65-111, ¶¶119-121.

177. The *Palmer* reference does not address any of the missing elements from claims 1 and 4.

178. It is my opinion that the combination of *Ong*, *Hoff*, and *Palmer* fails to describe claim 5 because of its dependence upon claims 1 and 4, as well as fails to describe the elements of claims 1 and 4.

GROUND 3: Obviousness Based on *Ong*, *Hoff*, and *Rolf*.

1. **No Motivation to Combine.**

179. There is no motivation to combine *Ong* and *Hoff*. *See supra* ¶¶55-64.

180. The *Rolf* reference is only used for its discussion about multiple communication paths.

181. The elements missing in the combining of *Ong* and *Hoff* are not discussed in *Rolf*.

182. It is my opinion that there is no motivation to combine the *Ong*, *Hoff*, and *Rolf* references because if such a combination is possible, claim elements would still be missing.

2. Independent Claim 10

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

183. As previously explained, *Hoff* does not describe or teach a transceiver and a broadcast FM transmitter could not be incorporated into the teachings of *Hoff* or *Ong*. See *supra* ¶¶56-57, 99-101.

184. As previously explained, *Ong* does not identify a switching element as claimed in the '333 Patent. See *supra* ¶¶104-112.

185. The *Rolf* reference was not used for this element. See Pet., 80.

186. I believe this element of claim 10 of the '333 Patent has not been described in the combination of *Ong* and *Hoff* or *Ong*, *Hoff*, and *Rolf*.

- h. [10.i.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.”**

187. Only *Ong* and *Hoff* are relied on for this element of independent claim 10 of the '333 Patent. Pet., 80. However, neither reference teaches this claim element.

188. First, *Ong* and *Hoff* fail to describe a switching element. *See supra* ¶¶104-112.

189. Second, *Ong* only describes the establishment of one wireless communication path between the electronic credit card and ATM. A communication means is described as “infra red communication device, magnetic communication device, **or** radio frequency communication device under the control of firmware” (Exh. 1005, 3:44-46) uses an OR, so it is only one of the devices that is used at a time. *See Id.*, Figure 3, 3:51-65. *Ong* only describes a single transceiver communicating with a data exchange device.

190. Third, *Hoff* fails to teach or describe a transceiver. *See supra* ¶¶56-64.

191. It is my opinion that the combination of *Ong* and *Hoff* relied on fails to describe using multiple transceivers that are required in element [10.i.i] of the '333 Patent.

192. It is my opinion that the combination of *Ong* and *Hoff* fails to describe a switching element used in claim 10 of the '333 Patent.

- i. **[10.i.ii]: “wherein upon said control device being selectively triggered to issue said invariable activation command: ... if said switching element is in its inactive state, data is forwarded to said user interface device for communicating information to the portable electronic device holder.”**

193. Only *Ong* and *Hoff* are relied on for this element of independent claim 10 of the '333 Patent. Petition 81.

194. *Ong* and *Hoff* fail to describe a switching element. *See supra* ¶¶104-112.

195. It is my opinion that the combination of *Ong* and *Hoff* fails to describe a switching element used in claim 10 of the '333 Patent.

This is the END of my Declaration.

196. In signing this Declaration, I recognize that the Declaration may be filed as evidence in a contested case before the PTAB. I also recognize that I may be subject to cross-examination in the case and that cross-examination will take place within the United States. If cross-examination is required of me, I will cooperate to the best of my ability to appear for cross-examination during the time allotted.

197. I reserve the right to supplement my opinions in the future to respond to any arguments that the Petitioner raises and to take into account new information as it becomes available to me.

198. I declare that all the statements made in this Declaration are of my own knowledge and true; that all statements made on information and belief are believed to be true; and further that these statements herein were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

199. I declare to the best of my ability under the penalty of perjury that all statements made in this Declaration are true and correct.

Executed: December 26, 2024, in Glen Mills, Pennsylvania.

DECLARATION OF SAFWAN ZAHEER
IN OPPOSITION TO PETITION FOR
IPR2024-01321, U.S. PATENT NO. 7,628,333

/Safwan Zaheer/

A handwritten signature in black ink, appearing to read 'Safwan Zaheer', written over a horizontal line.

Safwan Zaheer

APPENDIX A

FINTECH, LENDING, & PAYMENTS EXECUTIVE

DIGITAL TRANSFORMATION AND GROWTH | E2E PRODUCT, STRATEGY, & OPS LEADERSHIP

- ✓ **BRINGING BUSINESS, PRODUCT, DIGITAL, AND PEOPLE TOGETHER** to create pathways to growth and success at global, multi-\$M level. A leader in Global Payments, Lending, Buy Now Pay Later, Cards, and BaaS who practices "inside out" transformation and innovation- resulting in new revenue and market reach alongside powerful customer & team loyalty.
- ✓ **KEY FOCUS POINTS ON DIGITAL TRANSFORMATION, STRATEGIC GROWTH ENABLEMENT, AND INTELLIGENT EXECUTION.** Developed teams, Led global programs, and consistently navigated past mission critical obstacles across Financial Services, Retail, and Technology sectors. Demonstrated ability to influence and build consensus at C-Level.
- ✓ **A WARM, HIGH ACCOUNTABILITY LEADER** who believes in creating enterprises where our talents are given full rein to realize their potential. Known to walk into conflict-ridden situations and quickly move to common agreement and results.

Cross-Functional Team Leadership • Growth Enablement • Digital Transformation • FinTech • Product Development • GTM Program Management • Business Case/ROI • Core Banking • SDLC • Commercialization • Business Development Data Analytics • Talent Development • Strategic Partnerships • Executive Presence • SaaS • Customer Experience

PROFESSIONAL EXPERIENCE

autoMHatic Financial: *PE backed FinTech Lender focused on Manufactured Homes.*
Philadelphia, PA

2024-Present

CHIEF OPERATING OFFICER & CHIEF PRODUCT OFFICER

- Drove 25% growth in loan origination to \$80M annually, enhanced operational efficiency with targeted SLAs across Data Entry, Underwriting, Processing, and Closing/Fundings. Enhanced underwriting raising approval rates from 35% to 45% while managing risks. Partnering with CEO and investors for a high-value exit.
- Driving Product and Technology transforming through Digital Transformation, Data, and Artificial Intelligence (AI) solutions to accelerate Loan originations and expand market share.
- Launched an industry-first "Instant Decision" product, delivering full loan decisions within a minute and setting a new competitive benchmark; deployed modern LOS and POS systems to drive operational efficiency in loan origination.
- Partnering with AI firm to develop Blockchain based E2E Loan Performance product, eliminating investor data verification issues, and a Pricing platform to convert Loan Tape to Term Sheet in 30 minutes, boosting Capital Markets efficiency.

HUNDREDX: *Dynamic Advisory Firm empowering Banks, Payments, and FinTech firms with unrivaled consulting expertise*
Philadelphia, PA

2019-2023

MANAGING DIRECTOR

- Launched T-Mobile MONEY, T-Mobile's revolutionary Neobank, as part of work with BaaS Fintech firm, BM Technologies (f.k.a BankMobile). Led product development from initial concept to launch across 500K consumers in US.
- Forged growth strategy for disruptive POS Lending and BNPL firm, honed in on 3 top market verticals, and introduced the pricing, positioning and GTM necessary for a successful B2B2C and BaaS offering, beyond-target launch.
- Designed BNPL product roadmap, architecture, features and established a game-changing partnership for Challenger Bank yielding marked increase in growth and profitability. Brought innovative customer service focused value adds into play.

LENDINGPOINT

Kennesaw, GA/New York, NY

2021-2022

EXECUTIVE VICE PRESIDENT AND GENERAL MANAGER, POS LENDING

- Tapped to scale POS Lending and Payments business across Dental, Elective Medical, and Home Improvement verticals, growing from \$90M to over \$350M in funded volume per year during tenure, alongside record-high net margins. Built, managed and mentored 85-person cross-functional team. Increased share-of-wallet from 1.5% to 8% across verticals.
- Launched embedded finance B2B and B2B2C products, including financing capability of Invisalign's mobile app (+120M consumers), installment loans and BNPL products offered through merchant checkout solutions. Innovated on pricing and user experience, UI/UX, used data analyses, A/B testing, and hypotheses driven approach to increase take rates.
- Transformed product and merchant servicing into core driver of business growth, forged partnerships with Elective Medical and Home Improvement partners to position products as first and second-look lending programs.

BM TECHNOLOGIES, formerly BankMobile (via HUNDREDX)
Philadelphia, PA

2019-2021

HEAD OF PRODUCTS

- Strengthened business position through strategic design, build, and launch of E2E Payments and Lending product, as part of T-Mobile neobank (T-Mobile MONEY), from launch to over 500K active consumers in US.
- Designed and executed Payments and Lending program. Built E2E product, UI/UX, Core Banking/FIS, ACH, real-time payments, reporting, fraud, KYC/AML, BSA, LockBox to deliver seamless user experience to T-Mobile banking customers.
- Served as a crucial bridge between T-Mobile leadership, Core Banking vendor, product, and engineering teams in successfully bringing an industry-first neobank product for T-Mobile (T-Mobile MONEY) to market.

KPMG US
New York, NY

2016-2019

HEAD OF FINTECH

- Provided strategic, creative vision for KPMG's US FinTech service line, performed effectively as an active member of Global FinTech leadership team, and bridged gap between client opportunities and management's expectations
- Spearheaded launch of new digital banking platform on behalf of Top 20 Bank. Implemented Core Banking, money movement, KYC/AML platform, Sanctions screening, reporting, workflow tools for automation, 24x7 processing capabilities, achieving \$2B in deposit volume and over 15M consumers following launch.
- Increased client customer retention for credit card firm by over 35% and transaction volume by over 45% through launching and marketing a new suite of FinTech-like Credit and Debit card products.

ACCENTURE
Philadelphia, PA

2015-2016

DIRECTOR, DIGITAL PAYMENTS

- Led practice growth by controlling and delivering digital payments, transformation, strategy and product development services to Financial Services, Technology, and Retail clients, increasing company brand reputation and repeat business.
- Introduced innovative "Payments Wallet" and "Merchant Commerce Portal" solution for a Fortune 6 Retailer in US. Drove growth and scale-up to the tune of an additional \$1B+ in payment volume inside of 5 years.

BARCLAYS US
Wilmington, DE

2012-2015

DIRECTOR, DIGITAL PAYMENTS PRODUCTS

- Set a course of aggressive development and innovation. Mobile Payments Wallet Launch (Consumer and SMBs) netting \$500K transaction volume, 11K+ users and 25+ merchants. Championed decisive moves into the P2P payments space.
- Established critical partnerships with Google Wallet and Mastercard to achieve "top of wallet" exposure for credit cards.

Addition Experience as Strategy Consultant in **Peppers & Rogers Group**; Sr. Manager/ Product Manager (Mobile Products) and Wireless Engineer (International Standards Development) **in Nokia/ Alcatel-Lucent. (2001-2011)**

BOARD & ADVISORY ROLES: NewChip Accelerator (2022-Present), Blockchain Founders Fund (2020-Present), Arf Blockchain Payments firm (2019-2022), CORL Financial Technologies (2018-2020), LOYYAL Inc. (2016-2018).

EDUCATION

Massachusetts Institute of Technology (MIT), Cambridge MA

- Master of Science in Engineering and Management

Texas A&M University, College Station TX

- Master of Science in Electrical Engineering
- Bachelor of Science in Electrical Engineering (Cum Laude)

PATENTS

1. USA/UK Patent #13/647997 (US), # 1209590.7 (UK): **"Mobile Wallet System"**
2. USA Patent #13725061: **"Mobile Commerce Business System and Method for Sharing Merchant Content and creating Customer Index"**
3. USA Patent #7200115: **"A Method of Managing Non-acknowledgement responses in CDMA Wireless System"**

PATENT LITIGATION HISTORY

1. Declaration of Safwan Zaheer In Support of Petition For Post-Grant Review of U.S. Patent No. xx,xxx,x72 **"METHOD PAYMENTS ACCEPTING ..."** – (July, 2023)
2. Declaration of Safwan Zaheer In Support of Petition For Post-Grant Review of U.S. Patent No. xx,xxx,x96 **"... REPRESENTATIONS OF PAYMENTS ... EVENTS"** – (July, 2023)
3. Declaration of Safwan Zaheer In Support of Petition For Post-Grant Review of U.S. Patent No. xx,xxx,x74 **"... SYSTEM .. MOBILE DEVICE-TO-.... PAYMENTS"** – (August, 2023)