

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner

v.

TELCOM VENTURES LLC,
Patent Owner

Case No. IPR2025-01389
U.S. Patent No. 11,937,172

PATENT OWNER'S PRELIMINARY RESPONSE

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Exhibit Number	Description
2001	Interim Processes for PTAB Workload Management, Acting Director Memorandum (March 26, 2025) (https://www.uspto.gov/sites/default/files/documents/InterimProcesses-PTABWorkloadMgmt-20250326.pdf)
2002	Telcom Ventures' Local Patent Rule 3.1 and 3.2 Disclosures, Served November 21, 2024
2003	Telcom Ventures' Subpoena to Google, Served July 18, 2025
2004	Stipulated Protective Order for Non-Party Google, Dated September 11, 2025
2005	Third Amended Docket Control Order
2006	Civil Standing Order for Cases Before Judge Rita F. Lin
2007	Telcom Ventures' Proposed Schedule in the Apple Litigation
2008	Order Denying Samsung's Motion to Stay, Dated August 27, 2025
2009	Exhibit A16 to Samsung's Invalidity Contentions
2010	Exhibit A13 to Samsung's Invalidity Contentions
2011	Paul Hasting's Notices of Appearance in the Samsung Litigation
2012	Declaration of Dr. Chuck Easttom
2013	<i>Curriculum Vitae</i> of Dr. Chuck Easttom
2014	Chiradeep BasuMallick, "What is NFC (Near Field Communication)? Definition, Working, and Examples" (Sept. 29, 2022), https://www.spiceworks.com/tech/networking/articles/what-is-near-field-communication/

Exhibit Number	Description
2015	Liu et al., “Near-Field Communications: A Comprehensive Survey,” IEEE (June 2025)
2016	“The Creation of the NFC Forum and its Vision” (2011) https://cs.stanford.edu/people/eroberts/courses/cs181/projects/2010-11/NFCChips/nfcforum.html
2017	McHugh & Yarmey, “Near Field Communication: Introduction and Implication,” ERIC (2012)
2018	Coskun et al., “The Survey on Near Field Communication,” Sensors (June 5, 2015)

TABLE OF CLAIMS

Reference	Claim Limitation
Claim 1	
1[pre]	A method of operating a smartphone in performing at least one financial transaction; the method including a two-step process in establishing and using a capability in order to perform said at least one financial transaction; the method comprising:
1[a]	responsive to sensing at least one parameter by at least one sensor of the smartphone and responsive to determining that the at least one parameter that is sensed satisfies a criterion, performing a first step of said two-step process by enabling a mode to communicate by the smartphone information requesting an authorization to establish said capability;
1[b]	while the mode is enabled, and as a precursor to performing a second step of said two-step process, transmitting by the smartphone first data to a first device requesting the authorization to establish said capability to perform said at least one financial transaction; and
1[c]	receiving by the smartphone second data from the first device, comprising the authorization, responsive to said transmitting by the smartphone the first data; then
1[d]	performing the second step of said two-step process comprising performing a first transaction of said at least one financial transaction, responsive to detecting by the smartphone that a proximity condition is satisfied and responsive to sensing the at least one parameter and determining that the at least one parameter sensed satisfies the criterion;
1[e]	wherein said performing the second step of said two-step process comprises sensing that the proximity condition is satisfied relative to an access point maintained by a vendor at a point of purchase counter, by detecting a short-range signal that is transmitted by the access point, determining that a value of the at least one parameter that is sensed satisfies the criterion and then, responsive to having sensed that the proximity condition is satisfied relative to the access point and having determined that the value of the at least one parameter sensed satisfies the criterion, paying for a product by selectively sending information to at least one device;

Reference	Claim Limitation
1[f]	wherein said paying for a product by selectively sending information to at least one device comprises selectively and wirelessly transmitting information to the at least one device using unlicensed frequencies; and
1[g]	wherein said at least one parameter comprises a signal, a number, a word, a code, a velocity, an acceleration, a time-of-day, a humidity, a temperature, a height, a level of brightness, a level of darkness, a blood pressure, a heart rate, a blood content, a physiological state and/or a psychological state.
Claim 2	
2[pre]	The method of claim 1,
2[a]	wherein said enabling a mode to communicate by the smartphone information requesting an authorization comprises enabling a first function of the smartphone while disabling a second function of the smartphone responsive to the at least one parameter having been sensed by the at least one sensor of the smartphone and further responsive to having determined that the at least one parameter that is sensed satisfies the criterion; and
2[b]	then selectively communicating with the first device by using a communications capability of the first function, selectively establishing a master-slave relationship with the first device, and selectively requesting from the first device the authorization to establish the capability to conduct said at least one financial transaction.
Claim 3	
3[pre]	The method of claim 2, further comprising:
3[a]	repeatedly sensing the at least one parameter and repeatedly deciding, based on comparing a value of the at least one parameter sensed to the criterion, whether or not to maintain enabled said first function while maintaining disabled said second function; and
3[b]	maintaining enabled said first function while maintaining disabled said second function responsive to deciding that said value of the at least one parameter continues to satisfy the criterion; or
3[c]	disabling said first function and enabling said second function responsive to deciding that the value of the at least one parameter no longer satisfies the criterion.
Claim 4	
4[pre]	The method of claim 1,

Reference	Claim Limitation
4[a]	wherein said transmitting by the smartphone first data to a first device is responsive to the at least one parameter having been sensed by the at least one sensor of the smartphone and is further responsive to having determined that the at least one parameter that is sensed satisfies the criterion; and
4[b]	wherein said receiving by the smartphone second data from the first device is responsive to said transmitting by the smartphone the first data and comprises receiving by the smartphone information relating to an acknowledgement and/or authorization to establish and use the capability to perform said at least one financial transaction.
Claim 5	
5[pre]	The method of claim 1, further comprising:
5[a]	responsive to performing a financial transaction, causing data to be transmitted selectively to at least one device and further causing data to be received selectively from at least one device.
Claim 6	
6[pre]	The method of claim 1,
6[a]	wherein said transmitting by the smartphone first data to a first device and receiving by the smartphone second data from the first device comprises wirelessly transmitting/receiving by the smartphone using unlicensed frequencies, licensed frequencies, a WiFi air interface protocol, an Orthogonal Frequency Division Multiplexing air interface protocol and/or an Orthogonal Frequency Division Multiple Access air interface protocol.
Claim 7	
7[pre]	The method of claim 1,
7[a]	wherein said paying for a product further comprises deducting/withdrawing an amount of money from an account.
Claim 8	
8[pre]	The method of claim 7,
8[a]	wherein said using unlicensed frequencies comprises using unlicensed frequencies in a Time Division Duplex operation;
8[b]	wherein said selectively sending information to at least one device comprises selectively, sending information to the access point maintained by the vendor at the point of purchase counter and to at least one other device that is predetermined; and/or

Reference	Claim Limitation
8[c]	wherein the method further comprises selectively receiving information from the access point maintained by the vendor at the point of purchase counter and from at least one other device that is predetermined.
Claim 9	
9[pre]	A smartphone that is configured to perform operations, comprising a two-step process, associated with establishing and using a capability in order to perform at least one financial transaction; the operations comprising:
9[a]	responsive to sensing at least one parameter by at least one sensor of the smartphone and responsive to determining that the at least one parameter that is sensed satisfies a criterion, performing a first step of said two-step process by enabling a mode to communicate information requesting an authorization to establish said capability;
9[b]	while the mode is enabled, and as a precursor to performing a second step of said two-step process, transmitting first data to a first device requesting the authorization to establish said capability to perform said at least one financial transaction; and
9[c]	receiving second data from the first device, comprising the authorization, responsive to said transmitting the first data; then
9[d]	performing the second step of said two-step process comprising performing a first financial transaction of said at least one financial transaction, responsive to detecting by the smartphone that a proximity condition is satisfied and responsive to sensing the at least one parameter and determining that the at least one parameter sensed satisfies the criterion;
9[e]	wherein said performing the second step of said two-step process comprises sensing that the proximity condition is satisfied relative to an access point maintained by a vendor at a point of purchase counter, by detecting a short-range signal that is transmitted by the access point, determining that a value of the at least one parameter that is sensed satisfies the criterion and then, responsive to having sensed that the proximity condition is satisfied relative to the access point and having determined that the value of the at least one parameter sensed satisfies the criterion, paying for a product by selectively sending information to at least one device;

Reference	Claim Limitation
9[f]	wherein said paying for a product by selectively sending information to at least one device comprises selectively and wirelessly transmitting information to the at least one device using unlicensed frequencies; and
9[g]	wherein said at least one parameter comprises a signal, a number, a word, a code, a velocity, an acceleration, a time-of-day, a humidity, a temperature, a height, a level of brightness, a level of darkness, a blood pressure, a heart rate, a blood content, a physiological state and/or a psychological state.
Claim 10	
10[pre]	The smartphone of claim 9,
10[a]	wherein said enabling a mode to communicate by the smartphone information requesting an authorization comprises enabling a first function of the smartphone while disabling a second function of the smartphone responsive to the at least one parameter having been sensed by the at least one sensor of the smartphone and further responsive to having determined that the at least one parameter that is sensed satisfies the criterion; and
10[b]	then selectively communicating with the first device by using a communications capability of the first function, selectively establishing a master-slave relationship with the first device, and selectively requesting from the first device the authorization to establish the capability to conduct said at least one financial transaction.
Claim 11	
11[pre]	The smartphone of claim 10, wherein the operations further comprise:
11[a]	repeatedly sensing the at least one parameter and repeatedly deciding, based on comparing a value of the at least one parameter sensed to the criterion, whether or not to maintain enabled said first function while maintaining disabled said second function; and
11[b]	maintaining enabled said first function while maintaining disabled said second function responsive to deciding that said value of the at least one parameter continues to satisfy the criterion; or
11[c]	disabling said first function and enabling said second function responsive to deciding that the value of the at least one parameter no longer satisfies the criterion.
Claim 12	
12[pre]	The smartphone of claim 9,

Reference	Claim Limitation
12[a]	wherein said transmitting first data to a first device is responsive to the at least one parameter having been sensed by the at least one sensor of the smartphone and is further responsive to having determined that the at least one parameter that is sensed satisfies the criterion; and
12[b]	wherein said receiving by the smartphone second data from the first device is responsive to said transmitting by the smartphone the first data and comprises receiving by the smartphone information relating to an acknowledgement and/or authorization to establish and use t [sic] capability to perform said at least one financial transaction.
Claim 13	
13[pre]	The smartphone of claim 9, wherein the operations further comprise:
13[a]	responsive to performing a financial transaction, causing data to be transmitted selectively to at least one device and further causing data to be received selectively from at least one device.
Claim 14	
14[pre]	The smartphone of claim 9,
14[a]	wherein said transmitting first data to a first device and said receiving second data from the first device comprises wirelessly transmitting/receiving by the smartphone using unlicensed frequencies, licensed frequencies, a WiFi air interface protocol, an Orthogonal Frequency Division Multiplexing air interface protocol and/or an Orthogonal Frequency Division Multiple Access air interface protocol.
Claim 15	
15[pre]	The smartphone of claim 9,
15[a]	wherein said paying for a product further comprises deducting/withdrawing an amount of money from an account.
Claim 16	
16[pre]	The smartphone of claim 9,
16[a]	wherein said using unlicensed frequencies comprises using unlicensed frequencies in a Time Division Duplex operation;
16[b]	wherein said selectively sending information to at least one device comprises selectively sending information to the access point maintained by the vendor at the point of purchase counter and to at least one other device that is predetermined; and/or

Reference	Claim Limitation
16[c]	wherein the operations further comprise selectively receiving information from the access point maintained by the vendor at the point of purchase counter and from at least one other device that is predetermined.

I. INTRODUCTION

Telcom Ventures LLC (“Telcom Ventures” or “Patent Owner”) respectfully submits this Preliminary Response (“POPR”) requesting that the Board deny institution of the Petition for *inter partes* review (Paper 1, “Petition,” or “Pet.”) filed by Petitioner Google LLC (“Google” or “Petitioner”).

The Petition seeks *inter partes* review (“IPR”) of claims 1-16 (the “Challenged Claims”) of U.S. Patent No. 11,937,172 (the “’172 Patent,” Ex. 1001). The Petition sets forth a single Ground with regard to the independent claims, claims 1 and 9.¹ Specifically, Petitioner’s Ground 1 asserts that U.S. Patent Application Publication No. 2009/0170483 A1 to *Barnett* et al. (“*Barnett*”) (Ex. 1005), International Patent Publication No. WO 2006/087503 A1 to *Waters* et al. (“*Waters*”) (Ex. 1006), and U.S. Patent No. 7,434,723 to *White* et al. (“*White*”) (Ex. 1007) (collectively, the “*Barnett-Waters-White*” system/method) would have rendered each of the Challenged Claims obvious. Petitioner identifies disparate, isolated, and inconsistent disclosures from all three references in developing a combination system that is then incorrectly applied to the claims. Petitioner draws

¹ Petitioner’s Ground 2 adds International Patent Publication No. 02/09005 A1 to Smith et al. (“*Smith*”) (Ex. 1018) to the *Barnett-Waters-White* combination, but does so only to challenge dependent claims 5, 8, 13, and 16. Pet., 4.

conclusions contrary to the references' teachings by heavily relying on gap filling and expert testimony in a failed attempt to reach the claimed inventions of the '172 Patent. Petitioner's three-reference obviousness ground based on *Barnett-Waters-White* fails for several reasons.

First, Petitioner's combined system fails because it does not teach or suggest "responsive to sensing at least one parameter by at least one sensor of the smartphone and responsive to determining that the at least one parameter that is sensed satisfies a criterion, performing a first step of said two-step process by enabling a mode to communicate by the smartphone information requesting an authorization to establish said capability" of independent claim limitation 1[a], nor similar language of independent claim limitation 9[a]. Petitioner identifies a transmission—"consumer's phone sending a subscriber approval request . . . from the first communication device to a second communication device . . . to request authorization" of *White* as disclosing the claimed "mode to communicate." Pet., 28. However, Petitioner improperly conflates the act of sending a transmission with the claimed "enabling *a mode to communicate*."² Further, a POSITA would not have been motivated to combine *Barnett*, *Waters*, and *White* as Petitioner suggests. Petitioner's reasons for

² All emphasis added unless otherwise noted.

combining *Barnett*, *Waters*, and *White* are based on impermissible hindsight in view of the claims of the '172 Patent—not substantiated by the references themselves.

Second, Petitioner impermissibly maps the exact same transmission identified as the “first step of said two-step process by enabling a mode to communicate by the smartphone information requesting an authorization” of claim limitation 1[a], as the “as a precursor to performing a second step of said two-step process, transmitting by the smartphone first data to a first device requesting the authorization” of claim limitation 1[b]. Pet., 34. Petitioner’s assertion is non-sensical and further underscores Petitioner’s error in mapping a transmission as enabling “a mode to communicate.”

Third, Petitioner completely ignores that the limitations of claim 1 require a “first step” (claim limitation 1[a]), “as a precursor to performing a second step” of the transmission of data “requesting [] authorization” (claim limitation 1[b]), and then a “second step” (claim limitation 1[d]). Petitioner fails to comply with the required sequence of operations because, according to Petitioner’s interpretation of the *Barnett-Waters-White* system, the alleged “second step” (claim limitation 1[d]) of a financial transaction begins prior to sending a request for authorization and “enabling a mode to communicate” in the “first step” (claim limitation 1[a]). That is, in Petitioner’s *Barnett-Waters-White* system, the subscriber approval request (Petitioner’s alleged claim limitation 1[a]) is only sent *after* the transaction is

initiated (Petitioner's alleged claim limitation 1[d]) whereas, in the claimed system, the authorization request is *a precursor to* performing at least one financial transaction. As a result, the *Barnett-Waters-White* system fails to teach or suggest the limitations of the claims.

Accordingly, the Petition fails to establish that either Ground 1 or Ground 2 would have rendered the Challenged Claims obvious. Petitioner has failed to meet its burden to show a reasonable likelihood of unpatentability of any of the Challenged Claims. *See* 37 C.F.R. § 42.108(c). Accordingly, Patent Owner requests that the Board deny institution of *inter partes* review.

II. LEGAL STANDARD

The Petition must both “clearly point out the differences between the claimed invention and [the prior art]” and “explain why a person of ordinary skill in the art would have found the claimed subject matter obvious in spite of those differences.” *Synopsys, Inc. v. Mentor Graphics Corp.*, IPR2012-00041, Paper 16 at 14 (P.T.A.B. Feb. 22, 2013). The Petition must recite where the challenged limitation is found in the reference(s) and explain why a POSITA would have modified the primary reference with the recited limitation from the secondary reference(s). *Microsoft Corp. v. Secure Web Conf. Corp.*, IPR2014-00745, Paper 12 at 11-13 (P.T.A.B. Sept. 29, 2014). The Petition must establish, *with particularity*, the grounds and evidence that support invalidating the challenged claims. 35 U.S.C. § 312(a)(3). In

addition, the Director institutes based on what the Petition *actually presents* and not what it could have reasonably contained. *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1381 (Fed. Cir. 2016). The Director cannot “deviate from the grounds in the petition and raise its own” theories of invalidity. *Sirona Dental Sys. GmbH v. Institut Straumann AH*, 892 F.3d 1349, 1356 (Fed. Cir. 2018).

III. BACKGROUND

A. The ’172 Patent

Applicants filed U.S. Patent Application No. 18/523,863 on November 29, 2023, which issued as U.S. Patent No. 11,937,172 on March 19, 2024. ’172 Patent at 1. The ’172 Patent claims the benefit of U.S. Patent Application No. 12/264,711—later issued as U.S. Patent No. 9,462,411—which has a filing date of November 4, 2008. *Id.* at 2.

The ’172 Patent describes mobile wireless devices and methods of using a mobile wireless device to perform financial transactions, but only when certain conditions or criteria are met, such as the satisfaction of a proximity condition and a criterion for the value of a parameter, e.g., a physiological parameter. ’172 Patent, 1:30-35; 6:17-27; *see also* Ex. 2012, ¶56. In the prior art, mobile wireless devices were rigidly configured to perform a predetermined number of functions. ’172 Patent, 1:44-49; *see also* Ex. 2012, ¶56. To overcome this rigidity, the ’172 Patent describes devices and methods that “may be used to enable adaptively one or more

modes/functions of a device” based upon satisfying certain criteria. ’172 Patent, 1:54-59; *see also* Ex. 2012, ¶56. The ’172 Patent explains that the invention advantageously allows “a mobile wireless device [to] act as a ‘wallet’ (over and above other functions) only when it is time to pay for an item and not act as a wallet when there is no need to do so.” ’172 Patent, 1:49-52; *see also* Ex. 2012, ¶56.

The ’172 Patent also describes estimating “a value of at least one other parameter that may be associated with the wireless communications device . . . and/or an entity (living or otherwise) that is associated with and/or is proximate to the wireless communications device.” ’172 Patent, 6:19-23; *see also* Ex. 2012, ¶57. Such parameters include “velocity, acceleration, ToD, ToM, ToY, humidity, temperature, height, level of brightness, level of darkness, a blood pressure, a heart rate, a blood content, a physiological state, a psychological state, etc.” ’172 Patent, 6:25-28; *see also* Ex. 2012, ¶57. These parameters can be estimated using “sensors that may, according to some embodiments, be device-based and/or network assisted/based means and/or sensors.” ’172 Patent, 6:32-34; *see also* Ex. 2012, ¶57. The disclosed wireless communications devices may be “configured to selectively enable the first communications mode/function” responsive to a value of such a parameter. ’172 Patent, 6:45-49; *see also* Ex. 2012, ¶57.

During prosecution, the Examiner did not issue a rejection. Ex. 1004. In the Notice of Allowance, the Examiner explained that the closest prior art of record,

U.S. Patent Application Publication No. 2009/0058637, failed to teach or suggest “receiving by the smartphone second data from the first device, comprising the authorization” and other limitations of claims 1 and 9. *Id.* at 348-49.

B. *Barnett* (Ex. 1005)

United States Patent Application No. 2009/0170483 to Barnett, et al. (“*Barnett*”) is titled “System and Method for Transmitting Information Using a Mobile Phone.”

Barnett is a fully self-sustained system that is narrowly limited to an efficient means of providing a customer information while they are shopping in a store. *See Barnett* ¶[0001] (“The invention relates generally to a system and method of communicating shopping information between a consumer and a retailer. In particular, the invention relates to a system for enabling a consumer to obtain shopping information from a retailer, and the retailer to obtain information from the consumer, using a communication device, such as a mobile phone.”); *see also* Ex. 2012, ¶62. Figure 1 (reproduced below) illustrates this system. *Barnett* explains that, for example, “[t]he information transmitted to the retailer may include a shopping list of goods or services desired by the consumer. In return, the retailer may provide the home computer system 12 and portable communications device will information regarding the desired goods or services.” *Barnett*, ¶[0011].

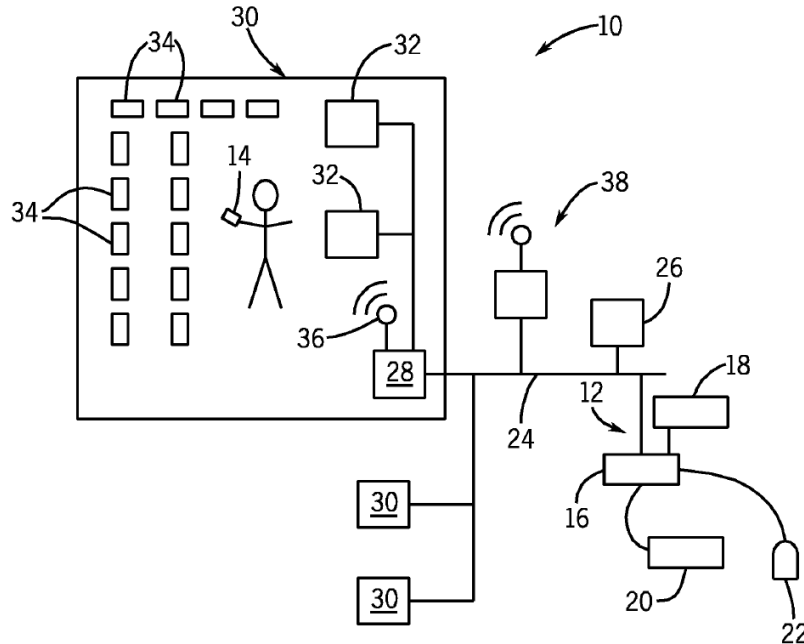


FIG. 1

Barnett, Fig. 1.

Barnett also discloses how the store’s infrastructure is self-sustained, explaining that “[w]ithin the store 30 are a series of displays 32 that are connected to the store computing system 28. In this embodiment, the displays 32 are NFC [near field communication]-enabled displays that can interact with a NFC-enabled mobile phone 14 using device-to-device communication” (*Barnett* ¶[0021]) and that “[s]tand-alone NFC-enabled devices 34 that have been programmed with specific information are located around the store 30. In this embodiment, the stand-alone NFC-enabled devices 34 are used to identify products to NFC-enabled devices.” *Barnett* ¶[0023]; see also Ex. 2012, ¶63.

Barnett discloses an infrastructure for reducing the time the customer spends in the store by streamlining the exchange of communication about the products to the customer. *See Barnett*, ¶¶[0002] (“[A] consumer may go to a store to purchase an item and find on arriving at the store that the item is not in stock. In addition, even if the item is in stock, considerable time may be wasted looking for the item in the store. Locating a store employee to ask the employee a question about a product can also be very time consuming. There are many other examples of problems that a consumer can experience when shopping that lead to considerable amounts of time being wasted.”); [0042] (“Generally the time that the consumer spends in a store may be used more efficiently. For example, the consumer knows immediately whether or not an item is in stock at a nearby store. In addition, there is less need to find a person at the store to obtain additional information.”); *see also* Ex. 2012, ¶64.

C. *Waters* (Ex. 1006)

International Patent Publication No. 2006/087503 to Waters, et al. (“*Waters*”) is titled “Improved Security for Wireless Communication.”

Waters focuses on limiting NFC capability. Ex. 2012, ¶66. For example, *Waters* discloses a method of authenticating a subscriber identity module (SIM) to “control to some extent the operation of the near field tag 41” so that the near field tag 41 is “under control of the SIM 15, by means of communication link 43.” *Waters*, 9.

As one example, *Waters* discloses a “[j]amming device” where “near field tag 41 and/or the mobile terminal 1 is designed to jam/disrupt the low level communications of all other RF tags within range of the jamming device. Instead of following the anti-collision protocol commonly used in near field tag technology, the device attempts to create collisions and other forms of interference. The jamming device is disabled, or the near field tag 41 is removed from proximity of the jamming device, when authorised use of the card is required.” *Waters*, 16-17; *see also* Ex. 2012, ¶67.

D. *White* (Ex. 1007)

United States Patent No. 7,434,723 to White, et al. (“*White*”) is titled “Mobile Payment Authorization System and Method.”

White “is directed to a payment approval system, and more particularly, but not by way of limitation, to a system and method for mobile payment approval.” *White*, 1:20-25; *see also* Ex. 2012, ¶69. Specifically, *White* provides embodiments for systems and methods for “completing a pending purchase” and “payment approval.” *White*, 1:38-2:8. Figure 1 (reproduced below) provides an exemplary architecture for an embodiment of *White*’s system. Ex. 2012, ¶70.

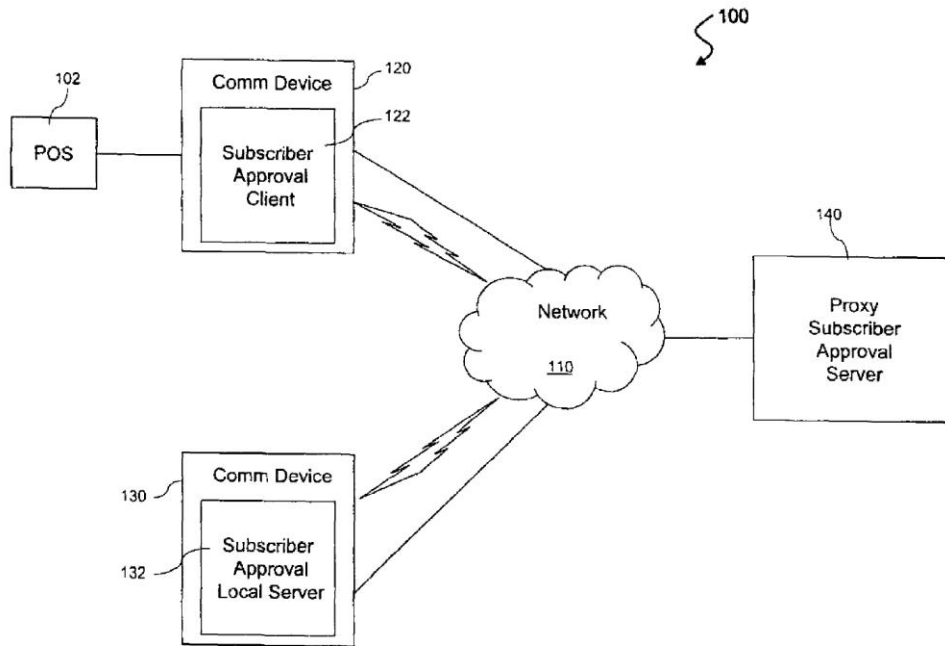


Figure 1

White, Fig. 1.

Regarding communicating with the second communication device 130 in Figure 1, *White* explains that “[t]he first communication device 120 communicates with the second communication device 130 through the network 110” (*White*, 4:17-19) and that these devices can be “computer-based entities, such as personal digital assistants (PDAs), mobile phones, personal computers (PC), laptop computers, or traditional wireless or wire-line telephones.” *White*, 4:12-15; *see also* Ex. 2012, ¶71.

IV. CLAIM CONSTRUCTION

Claim terms should be given their plain and ordinary meaning to a POSITA as of the earliest effective filing date. *See, e.g., Eon Corp. IP Holdings LLC v. Silver Spring Networks, Inc.*, 815 F.3d 1314, 1320 (Fed. Cir. 2016). “The ordinary meaning of a claim term is not ‘the meaning of the term in the abstract.’ Instead, ‘the “ordinary

meaning” of a claim term is its meaning to the ordinary artisan after reading the entire patent.”” *Id.* (quoting *Philips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc)).

Petitioner contends that “the Board need not construe any terms of the challenged claims to resolve the underlying controversy, as any reasonable construction reads on the prior art.” Pet., 9. Patent Owner agrees that the Board should apply the plain and ordinary meaning of the terms in the Challenged Claims. Patent Owner does not waive its right to raise additional issues of claim construction in any litigation, nor does it waive any argument in any litigation that claim terms are not indefinite or are otherwise valid. The failure of the Petition to render obvious the Challenged Claims is clear in view of the arguments below without construing any specific claim term.

V. LEVEL OF ORDINARY SKILL IN THE ART

Each of the arguments below is considered from the standpoint of a POSITA in the field of the ’172 Patent at the time of the invention. Patent Owner contends that a POSITA would have had at least a bachelor’s degree in electrical engineering, computer engineering, or a related field, with about two years of experience in wireless communications. Ex. 2012, ¶44. This is different from Petitioner’s proposal, which calls for “an undergraduate degree in electrical engineering,

computer engineering, computer science or a related field along with two years of work experience in the field of mobile communication applications.” Pet., 5.

Patent Owner disagrees that a POSITA should be required to have at least two years of experience in mobile communication applications. Ex. 2012, ¶45. Petitioner has not described or explained the scope or meaning of “the field of mobile communication applications.” *Id.* Regardless, Petitioner fails to meet its burden under either POSITA definition.

VI. THE DIRECTOR SHOULD NOT INSTITUTE *INTER PARTES* REVIEW

All of Petitioner’s Grounds fail. As described below, Petitioner’s combinations fail to render obvious all elements of any of the Challenged Claims. Petitioner’s proposed combinations are as follows:

Ground	Claims	Proposed Ground of Unpatentability
1	1-4, 6-12, and 14-16	Obvious under pre-AIA 35 U.S.C. § 103 in view of <i>Barnett, Waters, and White</i>
2	5, 8, 13, and 16	Obvious under pre-AIA 35 U.S.C. § 103 in view of <i>Barnett, Waters, White, and Smith</i>

A. Petitioner’s Ground 1 Fails Because the Claims Would Not Have Been Obvious in View of *Barnett*, *Waters*, and *White*.

In Ground 1,³ Petitioner argues that *Barnett* in view of *Waters* and *White* teaches the limitations of claims 1-4, 6-12, and 14-16, including independent claims 1 and 9. Pet., 4. All dependent claims of the ’172 Patent depend from one of these two independent claims. Petitioner provides analysis for claim 1, and then incorporates that analysis into the limitations of claim 9. Pet., 59-60. For the reasons set forth below, the references in Ground 1 neither disclose the Challenged Claims nor, individually or in combination, would they have rendered those claims obvious. Ex. 2012, ¶73.

- 1. *Barnett-Waters-White* Does Not Disclose or Render Obvious “responsive to sensing at least one parameter by at least one sensor of the smartphone and responsive to determining that the at least one parameter that is sensed satisfies a criterion, performing a first step of said two-step process by enabling a mode to communicate by the smartphone information requesting an authorization to establish said capability.”**

Claim limitation 1[a] requires “responsive to sensing at least one parameter by at least one sensor of the smartphone and responsive to determining that the at least one parameter that is sensed satisfies a criterion, performing a first step of said

³ Petitioner asserts a second Ground, Ground 2, with respect to certain dependent claims. If instituted, Patent Owner reserves the right to address Ground 2 at that time.

two-step process by enabling a mode to communicate by the smartphone information requesting an authorization to establish said capability.” Claim limitation 9[a] similarly requires “responsive to sensing at least one parameter by at least one sensor of the smartphone and responsive to determining that the at least one parameter that is sensed satisfies a criterion, performing a first step of said two-step process by enabling a mode to communicate information requesting an authorization to establish said capability.” All dependent claims of the ’172 Patent depend from independent claims 1 and 9, and therefore all claims include this requirement. Ex. 2012, ¶75.

Petitioner erroneously states that “*Barnett* in view of *Waters* and *White* discloses and/or suggests this limitation.” Pet., 14. Petitioner states that, “[w]hile *Barnett* does not expressly disclose” limitation 1[a], “a person of ordinary skill in the art would have been motivated and found it obvious to implement such features in the *Barnett* system/method in view of *Waters* and *White*.” *Id.* Petitioner’s proposed system does not disclose and would not have rendered obvious claim limitation 1[a] because (1) Petitioner fails to show how “enabling a mode to communicate” is ever met by the *Barnett-Waters-White* system/method, and (2) a POSITA would not have been motivated to combine *Barnett*, *Waters*, and *White* as Petitioner suggests. Ex. 2012, ¶77.

- i. Barnett-Waters-White Does Not Disclose or Render Obvious “performing a first step of said two-step process by enabling a mode to communicate by the smartphone information requesting an authorization to establish said capability.”*

Limitation 1[a] specifically requires “performing a first step of said two-step process by *enabling a mode to communicate* by the smartphone information requesting an authorization to establish said capability” that occurs “responsive to sensing at least one parameter by at least one sensor of the smartphone and responsive to determining that the at least one parameter that is sensed satisfies a criterion.” Petitioner points to *White* as disclosing “a ‘mode to communicate by the smartphone information requesting an authorization to establish said capability’ to conduct a financial transaction, where the communication mode involves the consumer’s phone sending a subscriber approval request (‘information requesting an authorization’) from the first communication device to a second communication device.” Pet., 28 (underlining in original). Later, Petitioner confirms its reliance on *White* when Petitioner alleges that a consumer triggering “the consumer’s mobile device to enable an authorization/approval process communication mode in which the mobile device sends a subscriber approval request to a specific approver’s device (e.g., the owner of the specific card for which the consumer is an authorized user, or a proxy subscriber approval server)” of *White* meets “performing a first step of said two-step process by enabling a mode to communicate by the smartphone information

requesting an authorization to establish said capability” as required by limitation 1[a]. Pet., 33 (underlining in original). Petitioner’s analysis improperly conflates the mere act of sending a transmission with the claimed “enabling a mode to communicate.” Ex. 2012, ¶79. Nowhere does Petitioner establish that “a mode” is enabled in the *Barnett-Waters-White* system “responsive to sensing at least one parameter by at least one sensor of the smartphone and responsive to determining that the at least one parameter that is sensed satisfies a criterion.” *Id.*

For example, Petitioner asserts that in response to satisfying proximity conditions, the consumer’s phone will “enable the authorization communication mode and send an authorization request” in accordance with *White*. Pet., 28. Then, Petitioner alleges that the authorization method of *White* is “beneficial because . . . it allows for an owner of a card/payment method to remotely approve transactions on a purchase-by-purchase basis” and “would have allowed for enhanced flexibility, while still offering the security benefits of an authorization process.” Pet., 29 (citing *White*, 3:7-21; 6:9-64, 6:65-7:30). But these steps of *White* do not describe enabling ***a mode to communicate***. Ex. 2012, ¶80. Instead, Petitioner describes the transmission and benefits of an “authorization request” over an already enabled communication pathway. *Id.* *White* discloses that its authorization request can be sent over a variety of networks, such as “voice-based telephony, video conference, internet protocol, multimedia messaging service (MMS), short messaging service

(SMS), email, instant text messaging, and/or other means of communication.” *White*, 4:22-25; Ex. 2012, ¶80.

Further, Petitioner fails to demonstrate that “*enabling a mode to communicate* by the smartphone information requesting an authorization to establish said capability” occurs “responsive to sensing at least one parameter by at least one sensor of the smartphone and responsive to determining that the at least one parameter that is sensed satisfies a criterion.” Ex. 2012, ¶81. Petitioner states that “[c]onsistent with Waters’ disclosure, the NFC tag of the mobile phone would only be enabled while the mobile device detects that a value of the sensor parameter satisfies some criterion (e.g., the light is sustained and of a certain type/frequency, a fingerprint matches a certain user and the pressure is actively being applied, a resistance sensor and pressure sensor combination detects that a human hand is actively pressing the sensor, or heat is actively being applied).” Pet., 32. Even if Petitioner were correct that “the NFC tag of the mobile phone would only be enabled while the mobile device detects that a value of the sensor parameter satisfies some criterion,” this argument underscores the flaws in the analysis. Ex. 2012, ¶81. Specifically, as admitted by Petitioner, the proposed *Barnett-Waters-White* combination enables NFC in response to a sensed parameter satisfying a criterion (Pet., 32), but NFC is *not* the mode of communication used in *White* for the purpose of “requesting an authorization to establish said capability” (e.g., the *White*

authorization process). Ex. 2012, ¶81. NFC is instead used to initiate an NFC payment transaction with an NFC-enabled point of sale (“POS”). *Id.*

Indeed, when Petitioner discusses the *White* authorization process, Petitioner does so with respect to already established modes of communication. Ex. 2012, ¶82. For example, Petitioner states that *White* discloses communication via the Internet or similar wireless network communication, while *Barnett* discloses such communication over a Wi-Fi system. Pet., 30 (citing *White*, 4:3-19 and *Barnett*, ¶¶[0016], [0026], [0035]). *White* never discloses sending the authorization message via NFC. *White*, 4:22-25 (listing “voice-based telephony, video conference, internet protocol, multimedia messaging service (MMS), short messaging service (SMS), email, instant text messaging, and/or other means of communication” as available communication networks between the requesting and authorizing devices); *see also* Ex. 2012, ¶82.

Petitioner fails to show that *Barnett-Waters-White* discloses or suggests “responsive to sensing at least one parameter by at least one sensor of the smartphone and responsive to determining that the at least one parameter that is sensed satisfies a criterion, performing a first step of said two-step process by enabling a mode to communicate by the smartphone information requesting an authorization to establish said capability.” ’172 Patent, cl. 1[a]; *see also* ’172 Patent, cl. 9[a] (“responsive to sensing at least one parameter by at least one sensor of the smartphone and

responsive to determining that the at least one parameter that is sensed satisfies a criterion, performing a first step of said two-step process by enabling a mode to communicate information requesting an authorization to establish said capability”). Thus, *Barnett-Waters-White* does not disclose or render obvious claim limitations 1[a] and 9[a] of the ’172 Patent, and as a result, Ground 1 does not disclose nor would it have rendered obvious independent claims 1 and 9, and all dependent claims. Ex. 2012, ¶83. Petitioner’s discussion of Ground 2, which is directed only to certain dependent claims, does not alter this analysis or conclusion. *Id.*

ii. A POSITA Would Not Have Been Motivated to Combine Barnett and Waters.

Petitioner admits that *Barnett* itself does not disclose “responsive to sensing at least one parameter by at least one sensor of the smartphone and responsive to determining that the at least one parameter that is sensed satisfies a criterion, performing a first step of said two-step process by enabling a mode to communicate by the smartphone information requesting an authorization to establish said capability” of claim limitations 1[a] and 9[a]. Pet., 14-15, 60. Petitioner proposes to solve this deficiency by combining *Barnett* with *Waters* to meet the “sensing at least one parameter by at least one sensor of the smartphone and . . . determining that the

at least one parameter that is sensed satisfies a criterion.” Pet., 15. This combination fails. Ex. 2012, ¶¶84-98.

Petitioner’s statement that a POSITA would have been motivated to incorporate “a sensing mechanism, similar to that disclosed by *Waters*, to selectively enable/disable the NFC tag in *Barnett*” such that it performs the “sensing at least one parameter by at least one sensor of the smartphone and . . . determining that the at least one parameter that is sensed satisfies a criterion” is not substantiated by either *Barnett* or *Waters*. Pet., 19. These references are directed to conflicting goals: *Barnett* is concerned with speed and ease, while *Waters* forgoes speed and ease for improved security. Ex. 2012, ¶¶84-91.

Barnett discloses a technique focused on efficiency and time savings in the specific context of shopping. Ex. 2012, ¶85. Specifically, *Barnett* discloses an unrestricted system that relies on NFC-enabled devices to quickly and easily exchange information within the context of shopping in a store. Ex. 2012, ¶¶85-86. Notably, the *Barnett* system is not restricted to using NFC at the point of sale, but discloses using NFC to “enable a consumer to obtain information regarding the availability, location, and/or price of the goods or services provided in the shopping list by using either the NFC capability of the mobile phone . . . to receive information from the retailer within a retail stores.” *Barnett*, ¶[0016]; Ex. 2012, ¶85. *Barnett* also discloses using NFC to “provide the display 32 [of the store computing system] with

the identity of the customer. Thus, informing the store computing system 28 that the consumer is in the store 30.” *Barnett*, ¶[0021]; *see also* Ex. 2012, ¶85.

Barnett, in fact, discloses the use of “[s]tand-alone NFC-enabled devices 34 that have been programmed with specific information [] located around the store 30.” *Barnett*, ¶[0023]; *see also id.*, ¶[0033] (“[A]s the consumer travels through the store 30, the consumer may see other items of interest. The consumer may hold their mobile phone next to a product identifier 34 and retrieve and store information regarding the product, such as the identity of the product.”); *see also* Ex. 2012, ¶86. *Barnett* also contemplates using NFC information “to direct the consumer” and “to analyze traffic flows through the store.” *Barnett*, ¶[0025]; Ex. 2012, ¶86. The system of *Barnett* relies “information to be transmitted to and from a[n] NFC-enabled mobile phone.” *Barnett*, ¶[0044]; Ex. 2012, ¶86. Thus, *Barnett* relies on the consumer’s device being NFC-enabled—not restricted—otherwise the *Barnett* system would not work. Ex. 2012, ¶86.

Barnett discloses using NFC for financial transactions and proposes a novel security regime for conducting these financial transactions. Ex. 2012, ¶87. Petitioner and its expert overlook the security regime put into place by *Barnett*. *Id.* Specifically, *Barnett* addresses security concerns through its design: it restricts where specific cards can be used and enables automatic payments exclusively at approved locations. *Id.* By limiting card usage to authorized environments, *Barnett* effectively mitigates

risk without imposing unnecessary barriers to NFC functionality. *Id.* In fact, the *Barnett* system not only obviates the need for further security measures, but affirmatively teaches away from any additional protocols that would impede the efficient use of NFC—particularly in the context of completing purchases. *See Barnett*, ¶[0032] (“Thus, the consumer does not have to scroll through menus or follow any other time consuming process simply to configure the mobile phone 14 each time they make a purchase.”); Ex. 2012, ¶87. A POSITA would have understood that the security features in *Barnett* are both sufficient and intentionally streamlined to support the system’s core objectives. Ex. 2012, ¶87.

In sharp contrast, *Waters* precisely discloses and relies on oppressive restriction protocols. Ex. 2012, ¶88. *Waters* outlines additional security protocols implemented solely for enabling or disabling NFC functionality in dependence on some data. *See Waters*, 2 (“there is provided apparatus for controlling use of a near field communication device, wherein [a] smart card means is operable to receive from the mobile telecommunications network data for controlling use of the near field communication device and is operable to selectively enable the near field communication device in dependence upon the data”); Ex. 2012, ¶88. For example, *Waters* discloses an embodiment requiring a PIN or password, describing that, until the correct PIN or password is entered, NFC is not enabled for *any* purpose. *See Waters*, 14; Ex. 2012, ¶88. Thus, *Waters*’s measures for restricting NFC usage

involves time-consuming and multi-step input validations that may ultimately end up failing validation and delaying the use of NFC indefinitely. Ex. 2012, ¶¶88-89.

Petitioner relies on embodiments of *Waters* in which “various types of sensors . . . can be used to activate the near field/RF tag, such as a light sensor, pressure sensor (in combination with a fingerprint or skin resistance sensor), or heat sensor.” Pet., 17 (citing *Waters*, 15-16 and Ex. 1002, ¶61). These embodiments exemplify the unresolvable tension between *Waters*’ disclosure and the connected store experience of *Barnett*. Ex. 2012, ¶89. For example, the “light sensor” may fail in practical retail environments—such as dimly lit furniture stores or those using fluorescent lighting—if the sensor’s frequency range does not align with ambient conditions. *Id.* Similarly, the “pressure sensor” combined with a fingerprint scanner could prevent legitimate transactions. *Id.* *Barnett* in fact explicitly contemplates a scenario where “the mobile phone 14 may have an ‘anonymous’ option so that the consumer may use some of the features the store provides, but the mobile phone 14 does not reveal the consumer’s name to the store.” *Barnett*, ¶[0031]. Use of *Waters*’ sensor would render *Barnett*’s retail environment embodiment non-functional. Ex. 2012, ¶89. That is, because *Barnett* is directed to unrestricted, seamless NFC operation, any combination with *White* is fundamentally incompatible with *Barnett*’s approach to seamless user experience and transaction efficiency.

Moreover, in asserting that a POSITA would have been motivated to combine *Barnett* and *Waters*, Petitioner misrepresents *Barnett*'s disclosures. Ex. 2012, ¶90. Specifically, Petitioner relies on paragraph [0043] of *Barnett* and the misinformed opinions of its expert to argue that the security measures of *Waters* would have benefitted *Barnett*'s system so as to reduce the number of staff members. Pet., 19-20; *see also* Ex. 2012, ¶90. Petitioner incorrectly states that *Barnett*'s "NFC readers are largely unmonitored by retail workers, since the goal of the invention is to reduce the number of higher cost human employees in the store." Pet., 19-20 (citing *Barnett*, ¶[0043]). Petitioner alleges that "[a] POSITA would have thus recognized the importance of implementing security features at each user's mobile phone in an environment with fewer employees, so as to reduce the risk of unauthorized access by an unauthorized NFC reader." Pet., 20. But Petitioner is wrong. *Barnett* never contemplates reducing the total number of employees in a store, but instead just suggests replacing those that are highly compensated (due to product-specific expertise) with lower-cost employees. Ex. 2012, ¶90; *Barnett*, ¶[0043] ("A retail store does not need as many people employed at the store to handle tasks like finding out if the item is in stock, finding out technical questions, etc. By not requiring product experts to be employed in each store, lower cost employees can be employed to work in the store."). That is, *Barnett* is trying to reduce the cost of "people employed at the store to handle tasks like finding out if the item is in stock, finding

out technical questions, etc.,” not reduce the overall headcount. *Barnett*, ¶[0043]; Ex. 2012, ¶90. Indeed, *Barnett* says nothing about removing or reducing the number of low-cost employees at checkout or in such a way that security would be impaired. Ex. 2012, ¶90.

A POSITA would have understood that *Barnett* is designed for efficiency and seamless transactions. *Barnett* enables automatic credit card use for pre-approved cards at approved locations, eliminating the need for manual selection, configuration, or authorization. Ex. 2012, ¶¶84-91. In contrast, *Waters* introduces time-consuming validation steps—such as input validation and device configuration—that directly undermine *Barnett*’s objectives. *Id.*

In sum, Petitioner’s asserted motivation to combine *Barnett* and *Waters* is unsubstantiated and is plagued by hindsight. Indeed, rather than identifying a clear, credible reason for integration, Petitioner selectively extracts features from each reference without regard for their underlying purposes or technical incompatibility. *Sanofi-Aventis Deutschland GmbH v. Mylan Pharm. Inc.*, 66 F.4th 1373 (Fed. Cir. 2023). Thus, *Barnett-Waters-White* does not disclose or render obvious claim limitations 1[a] and 9[a] of the ’172 Patent, and as a result, Ground 1 does not disclose nor would it have rendered obvious independent claims 1 and 9, and all dependent claims. Ex. 2012, ¶91. Petitioner’s discussion of Ground 2, which is

directed only to certain dependent claims, does not alter this analysis or conclusion.

Id.

iii. *A POSITA Would Not Have Been Motivated to Combine Barnett, Waters, and White.*

Next, Petitioner alleges that “a POSITA would have been motivated to further modify the *Barnett-Waters* system/method in view of *White* such that it performs the following bolded/italicized features: ‘**responsive to** sensing at least one parameter by at least one sensor of the smartphone and **responsive to** determining that the at least one parameter that is sensed satisfies a criterion, **performing a first step of said two-step process by enabling a mode to communicate by the smartphone information requesting an authorization to establish said capability.**’” Pet., 22 (underlining and emphasis in original); Ex. 2012, ¶92. Here, Petitioner’s approach ignores that *White*’s remote authorization process, like *Waters*’s restrictive validation steps, directly conflicts with *Barnett*’s core objective of efficient, seamless NFC use throughout the shopping experience. Ex. 2012, ¶¶92-98. By conflating fundamentally different systems, Petitioner’s arguments lack support in the prior art and fail to demonstrate any legitimate motivation to combine. *Id.*

At best, *White* is directed to limiting or restricting purchases. *See* Pet., 22-28; *see also id.* at 29 (“*White* discloses that its authorization method is beneficial because unlike other prior art authorization methods, it allows for an owner of a card/payment method to remotely approve transactions on a ***purchase-by-purchase basis.***”); Ex.

2012, ¶¶94-96. The approval/authorization process disclosed by *White* is for completing a single *pending* purchase.

White's disclosed processes include an authorization process that is admittedly time consuming. Ex. 2012, ¶94. For example, *White* contemplates the use of a "subscriber approval local server" through which the operator of a "second communication device 130" may "view pending purchase information, and . . . approve the pending purchase." *White*, 7:27-34 *see also* Ex. 2012, ¶94. *White* also discloses the purchasing user communicating with the approving user mid-purchase, such as a child whose purchase request is denied, and "may subsequently communicate with the parent to further describe and discuss the pending purchase with the parent, which may be referred to as disputing the rejection of the pending purchase." *White*, 6:49-56; *see also id.*, 7:46-52; Ex. 2012, ¶94. *White* contemplates the request for approval timing out, disclosing that "if the subscriber approval local server 132 is unable to respond to a request for approval from the subscriber approval client 122 after a pre-determined time the process 210 may proceed to block 214 or to block 216." *White*, 7:53-62; *see also* Ex. 2012, ¶94.

Petitioner's assertion that a POSITA would have been motivated to "modify the *Barnett-Waters* system/method to incorporate such an authorization feature, similar to that disclosed by *White*," is entirely unsupported. Pet., 28. Petitioner offers no substantive reason for this modification, instead relying on the generic assertions

that remote authorization rules were well known at the time. Pet., 28-29 (arguing that “[i]t was well known at the time of the alleged invention that authorization rules could be established such that one individual (or their device) could remotely authorize transactions performed by another individual using a mobile phone,” and then making a conclusory jump to conclude that “[t]hus, a POSITA would have been motivated to consider various authorization methods in order to allow for purchase approval in the *Barnett-Waters* system/method”); *see also* Ex. 2012, ¶95.

Petitioner goes on to argue that “*White*’s authorization method would have allowed for enhanced flexibility, while still offering the security benefits of an authorization process that allows a card owner to approve transactions performed by authorized users.” Pet., 29-30. This is nonsensical in view of the *Barnett-Waters* system, and is pure hindsight as well. *White*’s authorization is not “flexible” simply because a second device is remotely authorizing transactions on a ***purchase-by-purchase basis***—such an approach is more constrained. Ex. 2012, ¶96.

Moreover, *Barnett* is so concerned with security and time-savings that it discloses pre-authorizing specific credit cards to be used in specific stores so as to maintain security while reducing time spent by the shopper. *See Barnett*, ¶[0032] (“the mobile phone 14 may be programmed to provide a first credit card number when the consumer is in a first store and provide a second credit card number when the consumer is in a second store” so that “the consumer does not have to scroll

through menus or follow any other time consuming process simply to configure the mobile phone 14 each time they make a purchase”); Ex. 2012, ¶¶97.

Petitioner’s arguments do not address why a POSITA would have sought to introduce time-consuming remote authorization procedures into *Barnett*’s system, which is designed for efficiency and seamless transactions. Introducing the step of remote approval request and authorization, as disclosed in *White*—and doing so *in addition to* restrictive NFC-security functionality Petitioner already suggested applying from *Waters*—would eliminate the time savings desired in *Barnett*. Ex. 2012, ¶¶93-97.

Accordingly, a POSITA would not have been motivated to modify *Barnett* in view of *Waters* and *White* as Petitioner suggests, and as a result, the *Barnett-Waters-White* system fails to disclose or render obvious limitations 1[a] and 9[a] of the ’172 Patent, and as a result, Ground 1 does not disclose nor would it have rendered obvious independent claims 1 and 9, and all dependent claims. Ex. 2012, ¶¶98. Petitioner’s discussion of Ground 2, which is directed only to certain dependent claims, does not alter this analysis or conclusion. *Id.*

iv. Petitioner Relies on Impermissible Hindsight.

Petitioner’s approach not only fails to address the technical requirements of the claims, but also disregards established principles of obviousness. Indeed, Petitioner’s argument rises and falls on the testimony of its expert, Dr. Chatterjee,

who impermissibly applies hindsight to combine *Barnett*, *Waters*, and *White*. *InTouch Techs., Inc. v. VGO Commc'ns, Inc.*, 751 F.3d 1327, 1351 (Fed. Cir. 2014) (“It appears that [the expert] relied on the . . . patent itself as her roadmap for putting what she referred to as pieces of a ‘jigsaw puzzle’ together.”). As described *supra* in §§VI.A.1.ii-VI.A.1.iii, the references do not suggest, and in fact teach away from, Petitioner’s proposed combination. Petitioner’s hand-waving arguments that a POSITA would have been motivated to combine all three references (*Barnett*, *Waters*, and *White*) based on security considerations lacks proper and sufficient evidentiary support. *See, e.g.*, Pet., 20 (“A POSITA would have thus recognized the importance implementing security features at each user’s mobile phone in an environment with fewer employees, so as to reduce the risk of unauthorized access by an unauthorized NFC reader.”), 30 (“White’s authorization method would have also improved security by increasing oversight of transactions and reducing the risk of unauthorized or inappropriate transactions, consistent with both *Barnett*’s and *Waters*’ security goals.”).

Petitioner’s and its expert’s impermissible use of hindsight is especially clear considering that Petitioner inexplicably splits limitations, such as limitations 1[a] and 9[a], into multiple, discrete subparts and applies different references to each isolated subpart. *See* Pet., 31-33. Similar to Petitioner’s (and its expert’s) faults in this case, in a recent decision the Board noted that the petitioner’s overarching

rationale for combining two references was “gleaned only from applicant’s disclosure, not the art.” *Iriusrisk, Inc. v. Threatmodeler Software Inc.*, No. IPR2023-00656, Paper 33, 50 (P.T.A.B. Oct. 2, 2024). The Board found that “[g]iven this context, we find no evidence of record sufficiently showing why the skilled artisan would have taken the fabric of [the primary reference] and stitched it together” with very particular disclosures in the secondary reference that were not contemplated therein. *Id.* at 52 (“Petitioner’s reach to reasons to [combine the references’ components] like improving [the] systems or creating more effective, efficient, or faster [] systems to be insufficiently supported (if at all) and unpersuasive. We also find this context shows that Petitioner’s proffered reasons for combining [the references] to achieve the subject limitations lack rational underpinning, and that Petitioner’s proposed combination of teachings plainly takes into account knowledge gleaned only from applicant’s disclosure, i.e., impermissible hindsight.”) (citing *In re McLaughlin*, 443 F.2d 1392, 1313–14 (CCPA 1971)).

2. *Barnett-Waters-White* Does Not Disclose or Render Obvious “while the mode is enabled, and as a precursor to performing a second step of said two-step process, transmitting by the smartphone first data to a first device requesting the authorization to establish said capability to perform said at least one financial transaction.”

As recited in limitations 1[b] and 9[b], the claimed “transmitting” and “receiving” steps occur “*while the mode is enabled.*” ’172 Patent, cls. 1[b], 9[b] (emphasis added). In arguing that *Barnett-Waters-White* meets the requirements of

limitation 1[b], Petitioner incorporates the analysis for claim element 1[a] and explains that “while communication between a consumer’s mobile device [] and an approver’s device [] is enabled (“while the mode is enabled”) and before the actual transaction is performed [], a consumer’s mobile device requests authorization for a transaction by sending a subscriber approval request to the approver’s device” Pet., 34 (underlining in original); *see also id.*, 60 (incorporating the analysis of claim 1 for claim 9). That is, Petitioner maps “a consumer’s mobile device requests authorization for a transaction by sending a subscriber approval request to the approver’s device” to the claim recitation of “transmitting [by the smartphone] first data to a first device.” Pet., 34. But Petitioner overlooks that it relied on the same subscriber approval request for limitation 1[a]— “performing a first step of said two-step process by enabling a mode to communicate by the smartphone information requesting an authorization to establish said capability.” Pet., 33; *see also* Ex. 2012, ¶99.

To be clear, Petitioner is relying on the same subscriber approval request for multiple distinct elements of the claims:

This would trigger the consumer’s mobile device to enable an authorization/approval process communication mode in which *the mobile device sends a subscriber approval request to a specific approver’s device* (e.g., the owner of the specific card for which the consumer is an authorized user, or a proxy subscriber approval server)

(‘performing a first step of said two-step process by enabling a mode to communicate by the smartphone information requesting an authorization to establish said capability’), upon which the approver’s device is able to authorize the transaction by returning to the consumer’s mobile device a subscriber approval response.

Pet., 33 (underlining in original, emphasis added).

[A] consumer’s *mobile device requests authorization for a transaction by sending a subscriber approval request* to the approver’s device (‘transmitting by the smartphone first data to a first device’). (See Section IX.A.1.ii. [Referring to limitation 1[a]]).

Pet., 34 (underlining in original, emphasis added).

A mobile device requesting authorization for a transaction by sending a subscriber approval request cannot be both “performing a first step of said two-step process by enabling a mode to communicate by the smartphone information requesting an authorization to establish said capability” and “transmitting by the smartphone first data to a first device.” Ex. 2012, ¶¶100-101. Thus, Petitioner’s *Barnett-Waters-White* system does not disclose or render obvious “while the mode is enabled, and as a precursor to performing a second step of said two-step process, transmitting by the smartphone first data to a first device requesting the authorization to establish said capability to perform said at least one financial transaction” of limitation 1[b], and the similar requirements of limitation 9[b]. Ex. 2012, ¶101. Thus, *Barnett-Waters-White* does not disclose or render obvious claim limitations 1[b] and

9[b] of the '172 Patent, and as a result, Ground 1 does not disclose nor would it have rendered obvious independent claims 1 and 9, and all dependent claims. *Id.* Ground 2, which is directed only to certain dependent claims, does not alter this analysis or conclusion. *Id.*

3. *Barnett-Waters-White* Does Not Disclose or Render Obvious the Two-Step Process Required by Claim Limitations 1[a], 1[b], and 1[d].

Claim 1 of the '172 patent recites a method that expressly requires two distinct steps: (1) “performing a *first step* of said two-step process by enabling a mode to communicate by the smartphone information requesting an authorization to establish said capability” that is “responsive to sensing at least one parameter by at least one sensor of the smartphone and responsive to determining that the at least one parameter that is sensed satisfies a criterion” (in limitation 1[a]), and “as a precursor to performing a second step of said two-step process, transmitting first data to a first device requesting the authorization to establish said capability” (in limitation 1[b]); and (2) “performing the *second step* of said two-step process comprising performing a first financial transaction of said at least one financial transaction, responsive to detecting by the smartphone that a proximity condition is satisfied and responsive to sensing the at least one parameter and determining that the at least one parameter sensed satisfies the criterion” (in limitation [1.d]). *See also* Pet., 60 (incorporating the analysis of claim 1 for claim 9); Ex. 2012, ¶102. Petitioner states that *Barnett-*

Waters-White discloses or suggests these limitations. Pet., 14 (addressing limitation 1[a]), 34 (addressing limitation 1[b]), 35 (addressing limitation 1[d]), 60 (incorporating the analysis of claim 1 for claim 9); Ex. 2012, ¶101.

Petitioner’s *Barnett-Waters-White* system fails to disclose or render these limitations obvious because the combined system does not comply with the required sequence of operations set forth in the claim (e.g., per claim limitation 1[b], “while the mode is enabled, and *as a precursor to performing a second step of said two-step process*, transmitting by the smartphone first data to a first device requesting the authorization to establish said capability to perform said at least one financial transaction”). Ex. 2012, ¶103. Specifically, a POSITA would have understood that the initiation of the transaction in the *Barnett-Waters-White* system occurs before the request to receive approval to perform the transaction. Ex. 2012, ¶104. But Petitioner maps the *Barnett-Waters-White* system to the claims in an opposite manner such that authorization would occur before any transaction is ever initiated:

As discussed for limitation [1.a], in the *Barnett-Waters-White* combination, *the consumer initiates a transaction* (“[performing the *second step* of said two-step process comprising performing] a first transaction of said at least one financial transaction”) by bringing their mobile device within proximity of the NFC-enabled POS terminal
Pet., 35 (underlining in original, emphasis added).

[T]he consumer's mobile phone will *request/receive approval from a second device to perform the transaction* (i.e., the *first step* of the "two-step process")

Pet., 35 (underlining in original, emphasis added).

There is no dispute that Petitioner's *Barnett-Waters-White* system requires that a transaction be initiated and that purchase information be provided by a POS terminal *prior to* the subscriber approval request of *White* being triggered. Pet., 32-33 ("the POS terminal would return purchase information (e.g., price) to the consumer's mobile device . . . [which] would trigger the consumer's mobile device to enable an authorization/approval process communication mode in which the mobile device sends a subscriber approval request to a specific approver's device"); *see also* Ex. 2012, ¶105. Petitioner's *Barnett-Waters-White* system is thus inapposite to the requirements of claim 1, which expressly requires that "transmitting by the smartphone first data to a first device requesting the authorization to establish said capability to perform said at least one financial transaction" is "*a precursor* to performing a second step of said two-step process." '172 Patent, cl. 1[b]; *see also* '172 Patent, cl. 9[b]. That is, in Petitioner's *Barnett-Waters-White* system, the subscriber approval request is only sent *after* the transaction is initiated whereas in the claimed system the authorization is *a precursor to* performing at least one financial transaction. Pet., 32-33; *see also* Ex. 2012, ¶105.

Petitioner fails to show the required sequencing and conditionality of the claimed two-step process disclosed in claim limitations 1[a], 1[b], and 1[d]. Thus, *Barnett-Waters-White* does not disclose or render obvious claim limitations 1[a], 1[b], 1[d] and 9[a], 9[b], 9[d] of the '172 Patent, and as a result, Ground 1 does not disclose nor would it have rendered obvious independent claims 1 and 9, and all dependent claims. Ex. 2012, ¶106. Ground 2, which is directed only to certain dependent claims, does not alter this analysis or conclusion. *Id.*

VII. CONCLUSION

For the foregoing reasons, institution should be denied.

Dated: November 14, 2025

Respectfully submitted,

By: / Christopher TL Douglas /
Christopher TL Douglas, Reg. No. 56,950

CERTIFICATION UNDER 37 C.F.R. §42.24(d)

Under the provisions of 37 CFR § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Patent Owner's Preliminary Response to Petition totals 8,332 which is less than the 14,000 allowed under 37 CFR § 42.24(b)(1).

Dated: November 14, 2025

By: / Christopher TL Douglas / _____
Christopher TL Douglas

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §42.6(e), the undersigned hereby certifies that true and correct copies of the above-captioned **PATENT OWNER'S PRELIMINARY RESPONSE and Exhibits 2012 – 2018** were served in their entirety on November 14, 2025 via filing through the Patent Trial and Appeal Case Tracking System (P-TACTS) and electronic mail on the following counsel of record for Petitioner:

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