

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner

v.

TELCOM VENTURES LLC,
Patent Owner

Case No. IPR2025-01419
U.S. Patent No. 10,219,199

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	Order Denying Motion to Stay Proceedings, Dated August 27, 2025
2007	Exhibit A16 to Samsung’s Invalidity Contentions
2008	Paul Hasting’s Notices of Appearance in the Samsung Litigation
2009	Declaration of William C. Easttom
2010	Curriculum Vitae of William C. Easttom II (Chuck Easttom)
2011	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/
2012	Liu et al., “Near-Field Communications: A Comprehensive Survey,” IEEE (June 2025)
2013	“The Creation of the NFC Forum and its Vision” (2011) https://cs.stanford.edu/people/eroberts/courses/cs181/projects/2010-11/NFCChips/nfcforum.html

Exhibit Number	Description
2014	McHugh & Yarmey, “Near Field Communication: Introduction and Implication,” ERIC (2012)
2015	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 to wirelessly provide information to an entity using a first air interface, to wirelessly receive information from the entity using the first air interface; and to wirelessly receive a communications service from a wireless network using a second air interface that differs from the first air interface, wherein the communications service is received by the smartphone from the wireless network absent involving the entity and wherein the entity functions independently of the communications service, the method comprising:
1[a]	detecting by the smartphone that a proximity condition is satisfied between the smartphone and the entity;
1[b]	in response to at least the proximity condition having been satisfied between the smartphone and the entity, establishing a wireless short-range communications link between the smartphone and the entity to provide by the smartphone, using the first air interface, information to the entity and to receive by the smartphone information from the entity;
1[c]	in response to at least the proximity condition having been satisfied between the smartphone and the entity and in response to a physiological parameter, wirelessly providing by the smartphone, using the first air interface, information to the entity and wirelessly receiving by the smartphone, using the first air interface, information from the entity independently of, and absent involving the entity in, receiving by the smartphone the communications service from the wireless network using the second air interface; and
1[d]	wirelessly receiving by the smartphone, using the second air interface, the communications service from the wireless network absent involving the entity, absent providing by the smartphone information to the entity, and absent receiving by the smartphone information from the entity,
1[e]	wherein the wireless short-range communications link used by the first air interface is based upon unlicensed frequencies,
1[f]	wherein the second air interface uses a wireless communications link that is based upon licensed frequencies, and

Reference	Claim Limitation
1[g]	wherein the first air interface is not involved in providing the communications service to the smartphone.
Claim 2	
2[pre]	The method of claim 1,
2[a]	wherein said wirelessly providing by the smartphone, using the first air interface, information to the entity and wirelessly receiving by the smartphone, using the first air interface, information from the entity independently of, and absent involving the entity in, receiving by the smartphone the communications service from the wireless network using the second air interface is performed over a first time interval;
2[b]	wherein said wirelessly receiving by the smartphone, using the second air interface, the communications service from the wireless network absent involving the entity, absent providing by the smartphone information to the entity, and absent receiving by the smartphone information from the entity is performed over a second time interval; and
2[c]	wherein the first and second time intervals are non-overlapping with one another.
Claim 3	
3[pre]	The method of claim 1,
3[a]	wherein the wireless short-range communications link that is based upon unlicensed frequencies is further based upon a Time Division Duplex (TDD) protocol, and
3[b]	wherein the second air interface that uses a wireless communications link that is based upon licensed frequencies is further based upon an Orthogonal Frequency Division Multiplexed (OFDM) and/or Orthogonal Frequency Division Multiple Access (OFDMA) protocol.
Claim 4	
4[pre]	The method of claim 1,
4[a]	wherein said detecting by the smartphone that a proximity condition is satisfied between the smartphone and the entity is based, at least in part, on receiving a short-range signal from the entity over the first air interface.
Claim 5	
5[pre]	The method of claim 4,
5[a]	wherein said detecting by the smartphone that a proximity condition is satisfied between the smartphone and the entity is based, at least in part, on a measurement of signal strength of the short-range signal.

Reference	Claim Limitation
Claim 6	
6[pre]	The method of claim 1,
6[a]	wherein a value of the physiological parameter is provided by using a sensor of the smartphone.
Claim 7	
7[pre]	The method of claim 1, wherein said wirelessly providing by the smartphone, using the first air interface, information to the entity comprises:
7[a]	being proximate to a specific location within a store, then detecting a short-range signal being transmitted from said specific location within the store, and then performing a transaction to pay for one or more items
Claim 8	
8[pre]	The method of claim 1,
8[a]	wherein the entity comprises a check-out counter in a store, and
8[b]	wherein said wirelessly providing by the smartphone, using the first air interface, information to the entity comprises:
8[c]	performing a financial transaction to pay for one or more items.
Claim 9	
9[pre]	The method of claim 1,
9[a]	wherein establishing the wireless short-range communications link between the smartphone and the entity is performed in response to the physiological parameter.
Claim 10	
10[pre]	A system comprising:
10[a]	a smartphone that is configured to perform operations comprising:
10[b]	detecting by the smartphone that a proximity condition is satisfied between the smartphone and an entity;
10[c]	in response to at least the proximity condition having been satisfied between the smartphone and the entity, establishing a wireless short-range communications link between the smartphone and the entity to provide by the smartphone, using a first air interface, information to the entity and to receive by the smartphone information from the entity;

Reference	Claim Limitation
10[d]	in response to at least the proximity condition having been satisfied between the smartphone and the entity and in response to a physiological parameter, wirelessly providing, using the first air interface, information to the entity and wirelessly receiving, using the first air interface, information from the entity independently of, and absent involving the entity in, receiving a communications service from a wireless network using a second air interface that differs from the first air interface; and
10[e]	wirelessly receiving, using the second air interface, the communications service from the wireless network absent involving the entity, absent providing information to the entity, and absent receiving information from the entity,
10[f]	wherein the wireless short-range communications link used by the first air interface is based upon unlicensed frequencies,
10[g]	wherein the second air interface uses a wireless communications link that is based upon licensed frequencies, and
10[h]	wherein the first air interface is not involved in providing the communications service to the smartphone.
Claim 11	
11[pre]	The system according to claim 10
11[a]	further comprising the entity.
Claim 12	
12[pre]	The system of claim 10,
12[a]	wherein said wirelessly providing, using a first air interface, information to an entity and wirelessly receiving, using the first air interface, information from the entity independently of, and absent involving the entity in, receiving a communications service from a wireless network using a second air interface that differs from the first air interface is performed over a first time interval;
12[b]	wherein said wirelessly receiving, using the second air interface, the communications service from the wireless network absent involving the entity, absent providing information to the entity, and absent receiving information from the entity is performed over a second time interval; and
12[c]	wherein the first and second time intervals are non-overlapping with one another.
Claim 13	
13[pre]	The system of claim 10,

Reference	Claim Limitation
13[a]	wherein the second air interface is based upon an Orthogonal Frequency Division Multiplexed (OFDM) and/or Orthogonal Frequency Division Multiple Access (OFDMA) protocol.
Claim 14	
14[pre]	The system of claim 10,
14[a]	wherein said detecting by the smartphone that a proximity condition is satisfied between the smartphone and an entity is based, at least in part, on receiving a short-range signal from the entity over the first air interface.
Claim 15	
15[pre]	The system of claim 14,
15[a]	wherein said detecting by the smartphone that a proximity condition is satisfied between the smartphone and an entity is based, at least in part, on a measurement of signal strength of the short-range signal.
Claim 16	
16[pre]	The system of claim 10,
16[a]	wherein a value of the physiological parameter is provided by using a sensor of the smartphone.
Claim 17	
17[pre]	The system of claim 10,
17[a]	wherein said wirelessly providing, using the first air interface, information to the entity comprises:
17[b]	being proximate to a specific location within a store, then detecting a short-range signal being transmitted from said specific location within the store, and then performing a transaction to pay for one or more items.
Claim 18	
18[pre]	The system of claim 10,
18[a]	wherein the entity comprises a check-out counter in a store, and
18[b]	wherein said wirelessly providing, using the first air interface, information to the entity comprises:
18[c]	performing a financial transaction to pay for one or more items.
Claim 19	
19[pre]	The system of claim 10,
19[a]	wherein establishing the wireless short-range communications link between the smartphone and the entity is performed in response to the physiological parameter.

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 1-19 (the “Challenged Claims”) of U.S. Patent No. 10,219,199 (the “’199 Patent,” Ex. 1001). The Petition sets forth a single Ground with regard to the independent claims, claims 1 and 10.¹ Specifically, Petitioner’s Ground 1 asserts that United States Patent Application Publication No. 2009/0170483 A1 to *Barnett* et al. (“*Barnett*”) (Ex. 1005) and International Patent Publication No. WO 2006/087503 A1 to *Waters* et al. (“*Waters*”) (Ex. 1006) (collectively, the “*Barnett-Waters*” system/method) would have rendered Challenged Claims 1-2, 4-12, and 14-19 obvious. Pet., 4. Petitioner identifies disparate, isolated, and inconsistent disclosures from both references in

¹ Petitioner’s Ground 2 adds U.S. Patent Application Publication No. 2007/0286147 to *Wang* et al. (“*Wang*”) (Ex. 1026) and addresses dependent claims 3 and 13. Pet., 4. Petitioner’s Ground 3 adds U.S. Patent Application Publication No. 2007/0026893 to *Sakamoto* et al. (“*Sakamoto*”) (Ex. 1029) and addresses dependent claims 5 and 15. Pet., 4.

developing a combination system that is then incorrectly applied to the claims. Petitioner draws 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 '199 Patent. Additionally, a POSITA would not have been motivated to combine *Barnett* and *Waters* as Petitioner suggests. Petitioner's reasons for combining *Barnett* and *Waters* are based on impermissible hindsight in view of the claims of the '199 Patent—not substantiated by the references themselves.

Accordingly, the Petition fails to establish that any of Grounds 1, 2, or 3 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 ’199 Patent

Applicants filed U.S. Patent Application No. 15/800,885, on November 1, 2017, which issued as U.S. Patent No. 10,219,199 on February 26, 2019. Ex. 1001, 1.

The ’199 Patent describes mobile wireless devices and methods of using a mobile wireless device to engage in one or more communications modes, but only when certain conditions or criteria are met, such as the satisfaction of a proximity condition and a value of a parameter, e.g., a physiological parameter, satisfying a criterion. Ex.1001, 1:18-22; 6:10-27. The specification recognizes that the devices in the art were rigidly configured to perform a predetermined number of functions. *Id.*, 1:32-37. The ’199 Patent addresses this rigidity problem by providing devices

and methods that “may be used to enable adaptively one or more modes/functions of a device” based upon the satisfaction of certain criteria. *Id.*, 1:44-46. The specification 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.” *Id.*, 1:37-40.

The ’199 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.” *Id.*, 6:12-17. 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.” *Id.*, 6:16-21. 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.” *Id.*, 6:22-27. The disclosed wireless communications devices may be “configured to selectively enable a first communications mode/function” responsive to a value of such a parameter. *Id.*, 6:37-46.

The ’199 Patent issued after a single rejection during prosecution. Ex. 1004 at 102. The Examiner issued a non-final rejection of initial proposed claims 1-8 and 24 for double patenting in light of claims 1, 11, 16, and 18 of U.S. Patent No. 9,832,708

and as obvious in light of U.S. Patent Application 2007/0260710 to Dowling, and U.S. Patent Application 2007/0129077 to Iguchi et al. Ex. 1004 at 108, 110. Applicant filed a terminal disclaimer over the '708 Patent. Ex. 1004 at 157, 161. Applicant also filed amended claims in response to the rejection. Ex. 1004 at 174-182. Applicant argued that the identified prior art did not “disclose or suggest detecting by a smartphone that a proximity condition is satisfied between the smartphone and an entity.” Ex. 1004 at 185. Applicant also argued that the identified prior art did not disclose “wirelessly providing by the smartphone information to the entity in response to . . . a physiological parameter.” Ex. 1004 at 185.

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].

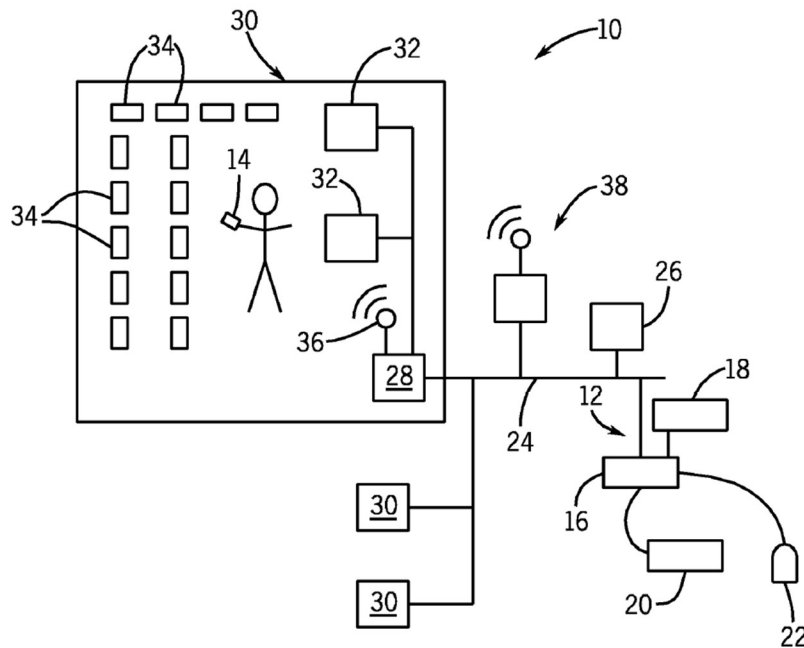


FIG. 1

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].

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. 2009, ¶71.

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. 2009, ¶74.

D. *Wang* (Ex. 1026)

United States Patent Application Publication No. 2007/0286147 to Wang et al. (“*Wang*”) is titled “Method for Assigning Frequency Spectrum Bandwidth of an OFDM and OFDMA Coexistence System.”

Wang is directed to a “method for assigning frequency spectrum bandwidth of an OFDM (Orthogonal Frequency Division Multiplexing) and OFDMA (Orthogonal Frequency Division Multiplexing Access) coexistence system.” *Wang*,

¶[0001]. *Wang* states that “the coexistence system comprises a base station system, characterized in that the base station system combines the uplink data and the downlink data containing OFDM sub-frames and OFDMA sub-frames in time division fashion, assigns the frequency spectrum reasonably according to the different bandwidth requirements of OFDM and OFDMA and the use condition of the frequency band, and constitutes the frame structure realizing the coexistence of OFDM and OFDMA.” *Wang*, ¶[0015].

E. *Sakamoto* (Ex. 1029)

United States Patent Application Publication No. 2007/0026893 to Sakamoto et al. (“*Sakamoto*”) is titled “Mobile Radio Communication Apparatus.” It is directed to “a mobile radio communication device[] and more specifically, to a mobile radio communication device and so on equipped with an NFC (near field communication) function.” *Sakamoto*, ¶[0001].

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 '199 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, ¶49. 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, ¶50. 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	1-2, 4-12, and 14-19	Obvious under pre-AIA 35 U.S.C. § 103 in view of <i>Barnett</i> , and <i>Waters</i>
2	3 and 13	Obvious under pre-AIA 35 U.S.C. § 103 over <i>Barnett</i> in view of <i>Waters</i> , and <i>Wang</i> .
3	5 and 15	Obvious under pre-AIA 35 U.S.C. § 103 over <i>Barnett</i> in view of <i>Waters</i> , and <i>Sakamoto</i> .

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

In Ground 1,² Petitioner argues that *Barnett* in view of *Waters* teaches the limitations of claims 1-2, 4-12, and 14-19, including independent claims 1 and 10. Pet., 4. All dependent claims of the ’199 Patent, including those addressed in Grounds 2 and 3, depend from one of these two independent claims. Petitioner provides analysis for claim 1, and then incorporates that analysis into the limitations of claim 10. Pet., 42-44. 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* Does Not Disclose and Would Not Have Rendered Obvious “in response to at least the proximity condition having been satisfied between the smartphone and the entity and in response to a physiological parameter, wirelessly providing by the smartphone, using the first air interface, information to the entity and wirelessly receiving by the smartphone, information from the entity independently of, and absent involving the entity in, receiving by the smartphone the communications service from the wireless network using the second air interface.”**

Claim limitation 1[c] requires “in response to at least the proximity condition having been satisfied between the smartphone and the entity and in response to a

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

physiological parameter, wirelessly providing by the smartphone, using the first air interface, information to the entity and wirelessly receiving by the smartphone, information from the entity independently of, and absent involving the entity in, receiving by the smartphone the communications service from the wireless network using the second air interface.” Claim limitation 10[d] similarly requires “in response to at least the proximity condition having been satisfied between the smartphone and the entity and in response to a physiological parameter, wirelessly providing, using the first air interface, information to the entity and wirelessly receiving, using the first air interface, information from the entity independently of, and absent involving the entity in, receiving a communications service from a wireless network using a second air interface that differs from the first air interface.” Petitioner addresses claim limitation 10[d] by reference to the analysis for claim limitation 1[c]. Pet., 42. Petitioner argues that “Barnett in view of Waters discloses and/or suggests this limitation.” Pet., 20. Petitioner’s argument fails.

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

Petitioner admits that “Barnett does not explicitly disclose that the transmission and receipt of information between the consumer’s phone and NFC display 32 occurs ‘in response to a physiological parameter’” of claim limitations 1[c] and 10[d]. Pet., 21, 42. Petitioner proposes to solve this deficiency by

“implement[ing] this feature in view of Waters, such that NFC capabilities are enabled in response to a physiological parameter being sensed” Pet., 21. This combination fails. Ex. 2012, ¶¶80-88.

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” is not substantiated by either *Barnett* or *Waters*. Pet., 25. These references are directed to conflicting goals: *Barnett* is concerned with speed and ease, while *Waters* forgoes speed and ease for improved security. Ex. 2009, ¶¶80-88.

Barnett discloses a technique focused on efficiency and time savings in the specific context of shopping. Ex. 2009, ¶81. 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. 2009, ¶¶81-82. 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. 2009, ¶81. *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. 2009, ¶81.

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. 2009, ¶82. *Barnett* also contemplates using NFC information “to direct the consumer” and “to analyze traffic flows through the store.” *Barnett*, ¶[0025]; Ex. 2009, ¶82. Thus, *Barnett* relies on the consumer’s device being NFC-enabled—not restricted—otherwise the *Barnett* system would not work. Ex. 2009, ¶82.

Barnett discloses using NFC for financial transactions and proposes a novel security regime for conducting these financial transactions. Ex. 2009, ¶83. 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. 2009, ¶83. 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. 2009, ¶83.

In sharp contrast, *Waters* precisely discloses and relies on oppressive restriction protocols. Ex. 2009, ¶84. *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. 2009, ¶84. 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. 2009, ¶84. 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. 2009, ¶¶84-85.

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 pressure sensor (in combination with a fingerprint or skin resistance sensor) or heat sensor.” Pet., 23 (citing *Waters*, 15-16 and Ex. 1002, ¶62). These embodiments exemplify the unresolvable tension between *Waters*’s disclosure and the connected store experience of *Barnett*. Ex. 2009, ¶85. For example, the “pressure sensor” of *Waters*, cited by Petitioner, that can be combined with a fingerprint scanner would fail to validate, for example, in a hypothetical example where a husband gives his phone to his wife to go shopping in a store using the *Barnett* system. Pet., 23-24 (citing *Waters*, 15-16); *see also* Ex. 2009, ¶85. *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*’s sensor would render this embodiment non-functional. Ex. 2009, ¶85.

Moreover, in asserting that a POSITA would have been motivated to combine *Barnett* and *Waters*, Petitioner misrepresents *Barnett*’s disclosures. Ex. 2009, ¶86. 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., 26-27; *see also* Ex. 2009, ¶86. 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., 26 (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., 26. 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. 2009, ¶86; *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. 2009, ¶86. 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. 2009, ¶86.

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. 2009, ¶¶80-88. 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* does not disclose or render obvious claim limitations 1[c] and 10[d] of the ’199 Patent, and as a result, Ground 1 does not disclose nor would it have rendered obvious independent claims 1 and 10, and all dependent claims. Ex. 2009, ¶88. Petitioner’s discussion of Grounds 2 and 3, which are directed only to certain dependent claims, does not alter this analysis or conclusion. *Id.*

ii. 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* and *Waters*. *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.i, 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 both references (*Barnett* and *Waters*) based on security considerations lacks proper and sufficient evidentiary support. *See, e.g.*, Pet., 26-27 (“A POSITA would have thus recognized that communication security is important to the mobile phone and would have been motivated to implement security improvements to the mobile phone’s NFC technology, e.g., by selectively enabling/disabling the NFC tag to prevent access by an unauthorized reader”).

Petitioner’s and its expert’s impermissible use of hindsight is especially clear considering that Petitioner inexplicably splits limitations, such as limitations 1[c] and 10[d], into multiple, discrete subparts and applies different references to each isolated subpart. *See* Pet., 20-22. 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)).

VII. CONCLUSION

For the foregoing reasons, institution should be denied.

Dated: November 18, 2025

Respectfully submitted,

By: / Christopher TL Douglas /
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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 4,559 which is less than the 14,000 allowed under 37 CFR § 42.24(b)(1).

Dated: November 18, 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 2009 – 2015** were served in their entirety on November 18, 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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