

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

MOZIDO, INC.,
Patent Owner.

IPR2022-01150
Patent 9,189,785 B2

Before KRISTEN L. DROESCH, MICHAEL R. ZECHER, and
PAUL J. KORNICZKY, *Administrative Patent Judges*.

DROESCH, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining Some Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

We have authority to hear this *inter partes* review under 35 U.S.C. § 6, and this Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons that follow, Petitioner has established by a preponderance of the evidence that claims 1–4, 6–11, 13–18, 20, and 21 of U.S. Patent No. 9,189,785 B2 (Ex. 1001, “’785 Patent”) are unpatentable. Petitioner, however, has not established by a preponderance of the evidence that claims 5, 12, and 19 of the ’785 Patent are unpatentable.

A. Procedural History

Apple Inc. (“Petitioner”) filed a Petition requesting *inter partes* review of claims 1–21 (“challenged claims”) of the ’785 Patent. Paper 2 (“Pet.”). Mozido, Inc. (“Patent Owner”)¹ timely filed a Preliminary Response. Paper 6. Pursuant to 35 U.S.C. § 314, we instituted trial as to all of the challenged claims and all of the grounds raised in the Petition on January 4, 2023. Paper 7 (“Dec. on Inst.”).

After institution of trial, Patent Owner filed a Response (Paper 9, “PO Resp.”), to which Petitioner filed a Reply (Paper 13, “Pet. Reply”), to which Patent Owner filed a Sur-reply (Paper 14, “PO Sur-reply”).

Petitioner relies on a Declaration of Henry Houh, Ph.D., (Ex. 1003) to support its Petition. Patent Owner filed a second Declaration of Michael I. Shamos, Ph.D., (Ex. 2004) to support its Response.

Dr. Shamos was cross-examined during trial, and a transcript of Dr. Shamos’s deposition (Ex. 1010) is included in the record.

¹ Patent Owner indicates Fintiv, Inc. is a real party in interest. Paper 4, 1.

Oral argument was held on October 3, 2023. A transcript of the oral argument is included in the record. Paper 23.

B. Related Matters

Petitioner contends that, to the best of its knowledge, the '785 Patent is not involved in any other proceedings. Pet. 63. Patent Owner identifies *Fintiv, Inc. v. Paypal Holdings, Inc.*, No. 6:22-cv-00288 (W.D. Tex.) as currently pending litigation. Paper 4, 2.

C. The '785 Patent (Ex. 1001)

The '785 Patent is directed to “selecting a debit network using a quick response (QR) code and to processing a payment using a debit network selected according to information embedded in a QR code.” Ex. 1001, 2:42–45. A mobile computer system receives input indicating a user has initiated payment for items sold by a provider, and determines that the user or provider has specified a preference indicating which debit network is to be used to process the payment. *See id.* at 2:45–51, Fig. 3, steps 310, 320. The mobile computer generates a QR code with the debit network selection and portions of the user’s debit account information embedded in the QR code, and sends the generated QR code to a payment processing system. *See id.* at 2:51–54, Fig. 3, steps 330, 340. A computer system processes a payment using a debit network according to information embedded in the QR code by first receiving a QR code having embedded payment information. *See id.* at 2:57–61; Fig. 4, step 410. “The embedded payment information includes at least the following: a total payment amount that is to be paid by a user, debit account information for the user, and an indication of which debit network is to be used to process the payment.” *Id.* at 2:61–65; *see id.* at Fig. 5. The computer system determines which debit

network is to be used based on the indication provided in the embedded payment information in the QR code, sends the payment amount and the user's debit account information to the determined debit network and, after the payment has been processed, receives an indication that the payment was processed by the determined debit network. *See id.* at 2:65–3:5, Fig. 4, steps 420, 430, 440.

D. Illustrative Claim

Claims 1, 8, and 15 are independent, and claims 2–7, 9–14, and 16–21 depend directly or indirectly therefrom, respectively. *See* Ex. 1001, 11:45–14:32. Claim 1 is illustrative and reproduced below:

- [1.0] A computer system comprising the following:
 - [1.1] one or more processors;
 - [1.2] system memory;
 - [1.3.1] one or more computer-readable storage media having stored thereon computer-executable instructions that, when executed by the one or more processors, cause the computing system to perform a method for [1.3.2] processing a payment using a debit network selected according to information embedded in a scannable code, the method comprising the following:
 - [1.4.1] receiving a scannable code with one or more portions of embedded payment information, [1.4.2] the embedded payment information including at least the following: a total payment amount that is to be paid by a user, [1.4.3] debit account information for the user, and [1.4.4] an indication of which debit network is to be used to process the payment, [1.4.5] the debit network comprising a debit payment processing entity that processes the initiated debit payment, [1.4.6] wherein the indication of which debit network to be used includes (1) a user preferred network, (2) a provider preferred network and (3) a selected network, such that the scannable code includes all of (1) the user preferred network, (2) the provider preferred network and (3) the selected

network, [1.4.7] the scannable code also including an identification of rewards to be provided when the selected network is used and [1.4.8] an identification of one or more goods or services associated with the total payment amount;

[1.5] determining which debit network is to be used to process the payment based on the indication provided in the embedded payment information in the received scannable code;

[1.6] sending the payment amount and the user's debit account information to the determined debit network; and

[1.7] receiving an indication that the payment was processed by the determined debit network.

Ex. 1001, 11:45–12:14 (Petitioner's reference numbers added in brackets).

E. Asserted Patentability Challenge and Asserted Prior Art

Petitioner asserts that claims 1–21 are unpatentable based on the following ground (Pet. 14):

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–21	103(a) ²	Easterly ³ , Luz ⁴

II. ANALYSIS

A. Claim Construction

In an *inter partes* review proceeding, the Board applies the same claim construction standard as that applied in federal courts in a civil action under 35 U.S.C. § 282(b), which is generally referred to as the *Phillips*

² The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011), amended 35 U.S.C. § 103 effective March 16, 2013. Because the '785 Patent claims the benefit of the filing date of two provisional applications filed prior to March 16, 2013, we refer to the pre-AIA version of § 103. Ex. 1001, code (60).

³ US 2011/0208659 A1, published Aug. 25, 2011 (Ex. 1005).

⁴ US 2013/0346291 A1, published Dec. 26, 2013 (Ex. 1006).

standard. *See* 37 C.F.R. § 42.100(b); *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). Under the *Phillips* standard, “words of a claim ‘are generally given their ordinary and customary meaning.’” *Phillips*, 415 F.3d at 1312.

Petitioner asserts that “no claim term requires express construction.” Pet. 12. During trial, Patent Owner did not provide any explicit claim constructions. *See* PO Resp. 14. Patent Owner, however, asserts “the preamble is limiting because it provides necessary antecedent basis for ‘the computer system’ which is recited later in the claim.” *Id.*

As demonstrated in our analysis below, we need not construe any claim terms or phrases to resolve the controversy before us. *See, e.g., Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (“[W]e need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))). Specifically, we need not determine whether the “computer system” recited in the preamble should be treated as limiting, because, even if it were, Petitioner demonstrates how Easterly satisfies this claim feature. *See infra* Section II.D.3a.

B. Level of Ordinary Skill in the Art

Petitioner asserts that a person of ordinary skill in the art in August of 2012 would have had a working knowledge of the software arts that are pertinent to the ’785 patent. That person would have a bachelor’s degree in electrical engineering, computer science, or equivalent training, and approximately two years of experience working in the field of software programming. Lack of work experience can be remedied by additional education, and vice versa.

Pet. 12 (citing Ex. 1003 ¶¶ 20–22). Patent Owner offers essentially the same definition of the level of skill in the art as Petitioner, asserting that a person of ordinary skill in the art

as of the effective filing date of the '785 Patent would have had a bachelor's degree in electrical engineering, computer science, or equivalent training, and approximately two years of work experience in software development involving network-based monetary transaction systems. . . . Lack of work experience can be remedied by additional education, and vice versa. . . . Appropriate experience could substitute for education.

PO Resp. 1 (citing Ex. 2001 ¶ 37). We adopt Petitioner's definition of a person of ordinary skill in the art because it is consistent with the level of skill reflected by the '785 Patent Specification and the asserted prior art, and does not materially differ from Patent Owner's definition.

C. Principles of Law

A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) if in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).⁵

⁵ During trial, the parties did not present evidence or arguments regarding secondary considerations.

D. Challenge to Claims 1–21 Over Easterly and Luz

1. Overview of Easterly (Ex. 1005)

Easterly is directed to using a smart device application to provide secure, encrypted communications with a proprietary server using scannable barcodes to authenticate the identity of a purchaser and authorize, clear, and settle a transaction between the purchaser and a merchant. *See* Ex. 1005 ¶ 2. Easterly discloses a proprietary “eCache” server that is linked to a retailer’s inventory system, a point of sale (POS) system, and a stock keeping unit system. *See* Ex. 1005 ¶¶ 3, 9, 12, 79, Fig. 1. The eCache server also is linked to an Automated Clearing House (ACH) network that allows for transactions to proceed as ACH transactions. *See id.* ¶ 79, Fig. 1. The POS system is linked to traditional payment methods such as credit cards, debit cards, or similar devices. *See id.* ¶ 79, Fig. 1. A customer presents either a primary barcode or a combined barcode consisting of a primary barcode and an extension barcode at the retailer’s POS reader for scanning in order to proceed with a transaction. *See id.* ¶¶ 19, 20, 79. The combined barcode contains all of the data required to authenticate, authorize, clear and settle a transaction. *See id.* ¶ 20.

When a customer presents a series of items for purchase at the POS system, the customer will access the eCache platform through a smart phone. *See* Ex. 1005 ¶ 124. The eCache platform accesses the customer’s profile, which may include preferences, and identify a specific route to settle the transaction, such as from a checking account or by executing an ACH transaction. *See id.* The eCache platform generates a barcode which includes information from the customer’s profile, and may also include instructions from the merchant regarding settling the transaction. *See id.*

2. Overview of *Luz* (Ex. 1006)

Luz is directed to a method of offering a payment option for the sale of products or services. Ex. 1006 ¶ 3. The method includes:

- (1) receiving, by a computing device, a payment request having payment information from a merchant for the sale of the products or services; (2) creating, by the computing device, data corresponding to the request encoded therein; . . . (3) encoding, by the computing device[,] a symbology with the data[; and] (4) transmitting, by the computing device, the symbology to the merchant for delivery to a purchaser.

Ex. 1006 ¶ 3. “A ‘symbology’ is a pattern, a symbol, an image or the like, as well as portions and combinations thereof, that is displayed.” *Id.* ¶ 22.

“The symbology provides an optical, electronically-readable encoded representation of data. Symbologies can include, without limitation, one-dimensional barcodes, two-dimensional (2D) barcodes or three-dimensional (3D) barcodes. Examples of two-dimensional barcodes include . . . quick response (QR) codes.” *Id.* The symbology is encoded with data that may generally be used to gain access to secured information. *See id.* ¶ 40.

“Examples of secured information may include, but are not limited to, information regarding a user’s banking account, an amount of money to be sent and/or received, a date and time of transmission of money for future payments, and/or the like.” *Id.* The symbology is further “encoded with other data, such as, for example, information regarding a product or a service, information regarding a merchant, purchase payment information, information about a bill and purchase order information.” *Id.*

3. Analysis of Claim 1

a. [1.0] Preamble

Petitioner contends that Easterly teaches “[a] computer system,” as recited in the preamble based on Easterly’s disclosure of a merchant’s POS system linked to an eCache server that receives a barcode from a purchaser. *See* Pet. 25–26 (reproducing Ex. 1005, Fig. 1 (with annotations); quoting Ex. 1005 ¶ 79; citing Ex. 1003 ¶ 59). Petitioner asserts a person of ordinary skill in the art “would have found it obvious for the POS system and eCache server to be a computer system.” Pet. 26 (quoting Ex. 1005 ¶ 60; citing Ex. 1003 ¶ 59).

Patent Owner does not address or rebut Petitioner’s showing for the preamble. *See* PO Resp. 23–28. As noted above, however Petitioner asserts the preamble is limiting. *See id.* at 14. Nonetheless, the burden of persuasion remains on Petitioner to demonstrate unpatentability. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

Despite Patent Owner’s contention otherwise, we need not resolve whether the preamble is limiting because, based on the entire record, Petitioner shows by a preponderance of the evidence that the preamble recitation is satisfied by the teachings of Easterly. *See* Pet. 25–26.

b. [1.1] “one or more processors; [1.2] system memory;

[1.3.1] one or more computer-readable storage media having stored thereon computer-executable instructions that, when executed by the one or more processors, cause the computing system to perform a method for [1.3.2] processing a payment using a debit network selected according to information embedded in a scannable code, the method comprising the following:”

Petitioner asserts that Easterly teaches using existing technology embodied as computers to supplement a proprietary extranet in performing transaction authorization, authentication, and settlement. *See* Pet. 27 (quoting Ex. 1005 ¶ 41), 28 (quoting Ex. 1005 ¶ 41), 29–30 (quoting Ex. 1005 ¶ 41). Petitioner contends that Luz provides an example in which a payment processing system includes a processor in Figure 5 and discloses that central processing unit (CPU), alone or in conjunction with one or more other elements disclosed in Figure 5, is an illustrative processing device. *See* Pet. 27–28 (quoting Ex. 1006 ¶ 45; Ex. 1003 ¶¶ 62–64). According to Petitioner, “because Easterly describes a POS system and Luz shows that it would have been obvious for such a system to include processors, Easterly and Luz render obvious ‘*one or more processors*’ as claimed.” Pet. 28 (citing Ex. 1003 ¶ 65).

Petitioner further asserts that Luz provides an example in which a payment processing system includes a memory device constituted of read only memory (ROM) and random access memory (RAM). *See* Pet. 28–29 (reproducing Ex. 1006, Fig. 5 (with annotations); quoting Ex. 1006 ¶ 45; citing Ex. 1003 ¶ 68). According to Petitioner, “because Easterly describes a POS system and Luz shows that it would have been obvious for such a system to include RAM or ROM, Easterly and Luz render obvious ‘*system memory*’ as claimed.” Pet. 29 (citing Ex. 1003 ¶ 69).

Petitioner further contends that Luz provides an example in which a payment processing system includes computer readable storage media with program instructions in Figure 5 that may be used to contain or implement program instructions, and may include ROM, RAM, or other non-transitory storage media. *See* Pet. 30 (quoting Ex. 1006 ¶¶ 45, 47). Petitioner asserts that a person of ordinary skill in the art “would have found it obvious for

Easterly's POS system to include computer-readable storage media with computer-executable instructions for performing the claimed method."

Pet. 30–31 (citing Ex. 1003 ¶ 72). According to Petitioner, "because Easterly describes a POS system, and Luz describes how the RAM or ROM of such systems may include computer readable storage media for executing instructions, Easterly and Luz render obvious [limitation [1.3.1]] as claimed." Pet. 31.

Petitioner further contends that Easterly describes processing a payment because it teaches a method for making a financial transaction that starts by scanning a barcode from a user's smart phone, where the smart phone runs an application that downloads or generates a barcode containing encrypted information, and the barcode is scanned at a merchant's POS system that processes the payment as an ACH or conventional transaction. *See* Pet. 31 (quoting Ex. 1005, code (57); citing Ex. 1003 ¶ 74). Petitioner asserts that Easterly teaches the information is embedded in the barcode based on Easterly's disclosure that the barcode incorporates information to identify parties to a transaction and all other relevant information to allow the transaction to be computed upon presentation and reading of the barcode. *See* Pet. 31–32 (reproducing Ex. 1005, Fig. 17 (with annotations); quoting Ex. 1005 ¶ 18; citing Ex. 1003 ¶ 75). Petitioner contends that Easterly describes how one of the pieces of information embedded in the scannable code is the debit network that is used to process the transaction based on Easterly's disclosure that the barcode includes information from the user's profile, including user preferences such as identifying a specific route to settle the transaction, such as from a checking account or by executing an ACH transaction, and disclosure of an additional link allowing a switch to a general purpose card authorized through other networks. *See* Pet. 32–33

(quoting Ex. 1005 ¶¶ 13, 124; citing Ex. 1003 ¶ 76). According to Petitioner, “because Easterly describes making a financial transaction that starts by scanning a barcode with the debit network to be used embedded therein, Easterly renders obvious ‘*processing a payment using a debit network selected according to information embedded in a scannable code*’ as claimed.” Pet. 33 (citing Ex. 1003 ¶ 77).

Patent Owner does not address Petitioner’s showing for these limitations of claim 1. *See* PO Resp. Resp. 23–28. In any event, the burden of persuasion remains on Petitioner to demonstrate unpatentability. *See Dynamic Drinkware*, 800 F.3d at 1378. Based on the entire record, Petitioner establishes by a preponderance of the evidence that the subject matter of limitations [1.1], [1.2], [1.3.1], and [1.3.2] would have been obvious to a person of ordinary skill in the art in view of the combined teachings of Easterly and Luz. *See* Pet. 27–33.

c. [1.4.1] “receiving a scannable code with one or more portions of embedded payment information”

Petitioner contends that Easterly discloses the scannable code is received at the POS system and includes payment information used to process the transaction based on Easterly’s description of scanning the barcode display at the POS system, where the barcode contains all of the data required to authenticate, authorize, clear, and settle a transaction, and returning transaction information to the proprietary eCache server for processing as an ACH or conventional transaction. *See* Pet. 33–34 (quoting Ex. 1005, code (57), ¶ 20; citing Ex. 1003 ¶¶ 78–80). According to Petitioner, “because Easterly’s barcode is received by the merchant’s POS [system] and includes all of the data required to authenticate, authorize, clear, and settle a transaction, Easterly renders obvious ‘*receiving a*

scannable code with one or more portions of embedded payment information’ as claimed.” Pet. 34 (citing Ex. 1003 ¶ 81).

Patent Owner does not address Petitioner’s showing for this limitation of claim 1. *See* PO Resp. 23–28. Nonetheless, the burden of persuasion remains on Petitioner to demonstrate unpatentability. *See Dynamic Drinkware*, 800 F.3d at 1378. Based on the entire record, Petitioner shows by a preponderance of the evidence that Easterly teaches or suggests the subject matter of limitation [1.4.1]. *See* Pet. 33–34.

d. [1.4.2] “the embedded payment information including at least the following: a total payment amount that is to be paid by a user, [1.4.3] debit account information for the user, and”

Petitioner contends that, based on Easterly’s description that the barcode includes all the data required to authenticate, authorize, clear, and settle a transaction, a person of ordinary skill in the art “would have understood that the amount of the transaction is a required piece of data when processing transactions. . . . Without that, there is not a way to know how much money should be transferred.” Pet. 34 (citing Ex. 1003 ¶¶ 82–83; Ex. 1005 ¶ 20). Petitioner further asserts that “Luz provides a specific example of including the total price in a scannable code” based on Luz’s disclosure of symbology 300 that may be generated by a mobile device and “includes various pieces of information such as ‘an amount of money to be sent and/or received’ and ‘purchase payment information,’” including a total price. Pet. 34–35 (quoting Ex. 1006, claim 6; citing Ex. 1003 ¶¶ 84–86; Ex. 1006 ¶ 40, claim 12); *see* Pet. 22 (similar argument, quoting Ex. 1006 ¶ 40, claim 6; citing Ex. 1003 ¶ 53; Ex. 1006, claim 12).

Petitioner asserts that it would have been obvious to a person of ordinary skill in the art at the time of the invention to include a total payment

amount that is to be paid in the embedded payment information of Easterly's barcode. *See* Pet. 21–25, 34–35. According to Petitioner, “[b]ecause it was well known to include the total price in the scannable barcode, as taught by Luz, a [person of ordinary skill in the art] thus would have found it obvious to include the total price in Easterly's barcode as part of ‘all of the data required to authenticate, authorize, clear and settle a transaction.’” Pet. 35 (quoting Ex. 1005 ¶ 20; citing Ex. 1003 ¶ 87). Petitioner further asserts that, “‘because Easterly teaches a scannable code that includes all the data required to process a transaction, and Luz teaches that it was known to include the total price in a scannable code, Easterly and Luz render obvious *‘the embedded payment information including at least the following: a total payment amount that is to be paid by a user’* as claimed.” *Id.* (citing Ex. 1003 ¶ 88).

Petitioner further contends that the combination is an example of combining prior art elements according to known methods to yield predictable results. *See* Pet. 21 (citing Ex. 1003 ¶ 50). Petitioner asserts that the combination is explicitly suggested by Easterly because “Easterly's barcode ‘contains all of the data required to authenticate, authorize, clear, and settle a transaction,’” and is “‘able to incorporate information sufficient to identify the parties to a transaction and all other relevant information regarding the transaction.’” *Id.* (quoting Ex. 1005 ¶¶ 18, 20) (emphasis omitted); *see* Pet. 22 (similar argument, quoting Ex. 1005 ¶ 18). According to Petitioner, “because Easterly notes that price is pertinent to the transaction, and that the barcode includes all the data required to process the transaction, or relevant to the transaction, it would have been obvious for the barcode to include the total price.” Pet. 21 (citing Ex. 1003 ¶ 51). Petitioner also asserts that a person of ordinary skill in the art “would have understood

that transaction information such as the items subject to the transaction would be important and thus obvious to include within the barcode that is used at point-of-sale terminals.” Pet. 22 (citing Ex. 1003 ¶ 52). According to Petitioner,

[g]iven Easterly’s suggestion that the barcode includes the total price and items subject to a transaction, along with Luz’s explicit teaching of a barcode including such information, a [person of ordinary skill in the art] would have found it obvious for Easterly’s barcode to include price and items of the transaction. . . . Including such information as the total price would have yielded the predictable result of having the barcode include data that is relevant to the transaction.

Pet. 22–23 (citing Ex. 1003 ¶ 54).

Based on the entire record, including Petitioner’s citations to Easterly, Luz, and Dr. Houh’s testimony (Ex. 1003), we are persuaded by a preponderance of the evidence that Petitioner sets forth sufficient articulated reasoning with rational underpinning to support the conclusion that it would have been obvious to a person of ordinary skill in the art at the time of the invention to include a total payment amount that is to be paid in the embedded payment information of Easterly’s barcode. *See* Pet. 21–25, 34–35; *KSR*, 550 U.S. at 418.

Petitioner also contends that Easterly teaches that the barcode includes debit account numbers based on Easterly’s disclosure that the barcode has encoded detailed information concerning the transaction, which may include designating particular accounts through which a transaction may be settled, including a checking account, debit card account, and information from the user’s profile including account numbers, credit card numbers, and debit stored value card account numbers. *See* Pet. 35–36 (quoting Ex. 1005 ¶¶ 84, 98, 124, 125; citing Ex. 1003 ¶¶ 89–92). On this basis, Petitioner asserts

that “Easterly renders obvious ‘*the embedded payment information including at least the following: ... debit account information for the user*’ as claimed.” Pet. 36 (citing Ex. 1003 ¶ 93).

Patent Owner does not address Petitioner’s showing for these limitations of claim 1. See PO Resp. 23–28. Nevertheless, the burden of persuasion remains on Petitioner to demonstrate unpatentability. See *Dynamic Drinkware*, 800 F.3d at 1378. Based on the entire record, Petitioner shows by a preponderance of the evidence that the subject matter of limitations [1.4.2] and [1.4.3] would have been obvious to a person of ordinary skill in the art in view of the combined teachings of Easterly and Luz. See Pet. 21–25, 34–36.

e. [1.4.4] “the embedded payment information including at least the following: . . . an indication of which debit network is to be used to process the payment, [1.4.5] the debit network comprising a debit payment processing entity that processes the initiated debit payment”

Petitioner contends that “Easterly’s barcode includes the user’s preference for how to route the transaction, as well as the merchant’s instructions for settling the transaction.” Pet. 36–37 (quoting Ex. 1005 ¶ 124; citing Ex. 1003 ¶ 94); see Pet. 32 (quoting Ex. 1005 ¶ 124); Pet. Reply 4–5 (quoting Ex. 1005 ¶ 124; citing Ex. 1003 ¶ 94). Petitioner asserts that “Easterly further describes that one mechanism for processing and settling payment is a ‘debit (EFT) network,’” based on Easterly’s disclosure that ““processing may include batching approved transaction data to an external server for submission to the ACH network or to a credit or **debit card network**.”” Pet. 37 (quoting Ex. 1005 14, citing Ex. 1005 ¶ 13) (Petitioner’s emphasis); see Pet. 32–33 (quoting Ex. 1005 ¶ 13; citing Ex. 1003 ¶ 76); Pet. Reply 5 (quoting Ex. 1005 ¶ 13; citing Ex. 1003 ¶ 95;

Pet. 37). Petitioner further contends that Easterly provides the additional information that makes up the claimed indication. *See* Pet. 37 (citing Ex. 1003 ¶¶ 95–96; Pet. 39–43). According to Petitioner,

because Easterly’s barcode includes user and merchant preferences for routing and settling a transaction, and the preferences include a specific route to settle the transaction, and that specific route may be a debit network, Easterly renders obvious “*the embedded payment information including at least the following: ... an indication of which debit network is to be used to process the payment*” as claimed.

Pet. 37–38 (citing Ex. 1003 ¶ 97).

Petitioner further contends that a person of ordinary skill in the art would have recognized that “the debit card network or EFT network as described by Easterly is an entity that processes debit payments,” and “the term debit network as claimed referred to an entity for processing debit transactions, as that term was used in the financial industry.” Pet. 38 (quoting Ex. 1005 ¶ 13; Ex. 1007, 5:32–40; citing Ex. 1003 ¶¶ 98–99). According to Petitioner, “because Easterly describes debit networks or EFT networks, and a [person of ordinary skill in the art] would have recognized such networks as referring to an entity that processes debit transactions, Easterly renders obvious ‘*the debit network comprising a debit payment processing entity that processes the initiated debit payment*’ as claimed.” Pet. 39 (citing Ex. 1003 ¶ 100).

In response, Patent Owner contends that “the embedded payment information including at least . . . an indication of which debit network is to be used to process the payment” “requires additional information beyond the ‘debit account information.’ . . . It also requires ‘an indication of which debit network is to be used to process the payment.’” PO Resp. 23–24 (citing Ex. 2004 ¶ 73). According to Patent Owner, “there is no disclosure at all in

Easterly of indicating which debit network is to be used to settle a transaction, as opposed to indicating an overall choice between credit and debit.” *Id.* at 24 (citing Ex. 2004 ¶ 74).

Patent Owner contends that “[t]he ‘route’ referred to in Easterly is not a choice of debit network, but a choice of payment *type*, e.g., credit, debit, checking, ACH, etc.” PO Resp. 24 (citing Ex. 2004 ¶ 74; Dec. on Inst. 17). According to Patent Owner, “Easterly merely discloses a consumer choice whether to use a checking account or ACH.” PO Resp. 24 (citing Ex. 2004 ¶ 76); *see* PO Resp. 3–9 (arguments that, in the ’785 Patent, “‘route’ refers to a specific payment network”); 27 (arguments that the “routing” of Easterly is a destination at which payment will be made, citing Ex. 2004 ¶ 82). According to Patent Owner, Easterly’s disclosure of a choice of payment type, e.g., credit, debit, checking, ACH, etc., “are not ‘routes’ because they do not identify a specific network to be used to process the payment.” *See id.* at 24–25 (citing Ex. 2004 ¶ 76). Patent Owner reasons, for example, that although “a checking account number specifies the ultimate bank from which funds will be taken to make a payment, that number does not specify which network will be used to send the check image to that bank and thus is not a ‘route.’” *Id.* at 25 (citing Ex. 2004 ¶ 76).

In the Reply, Petitioner asserts that Patent Owner’s contention that Easterly’s disclosure of a specific route to settle the transaction merely refers to a choice of payment type is contrary to the record. *See* Pet. Reply 5 (citing Ex. 2004 ¶ 74; PO Resp. 24). According to Petitioner, “Easterly does not limit its disclosure of a ‘specific route’ to settle the transaction to a payment type, as Patent Owner suggests.” *Id.* (citing PO Resp. 18–19, 24–25, 26–28). Petitioner asserts, as an example, that “Easterly describes

‘routing preference[s]’ that ‘allow a transaction to be routed to **external debit** or credit **networks** based upon the lowest cost of that transaction to a retailer.’” *Id.* (quoting Ex. 1005 ¶ 14). Petitioner also points out that Easterly discloses “the merchant can indicate preferences of its own that could be used to advantageously clear a transaction through the least expensive or fastest route.” *Id.* at 5–6 (quoting Ex. 1005 ¶ 96). Petitioner asserts that Easterly’s disclosures support a broader view of the specific route than merely a payment type, and the broader view is consistent with the Board’s findings in the Institution Decision. *See id.* (quoting Dec. on Inst. 18). According to Petitioner, “[l]imiting Easterly’s ‘specific route’ to a payment type, as Patent Owner suggests, excludes Easterly’s express disclosure of routing preferences identifying external debit networks.” *Id.*

Petitioner further contends that Patent Owner and Dr. Shamos “essentially admit that information included in Easterly’s barcode includes an indication of the specific route, i.e., which debit network is to be used to process the payment[,]” because, according to Patent Owner and Dr. Shamos, “it is ‘possible to determine, from a debit account number, a debit network that may be used to settle[] the transaction.’” Pet. Reply 6 (quoting PO Resp. 23; Ex. 2004 ¶ 73). Petitioner notes, as an “example, ‘all debit card numbers beginning with the digit “5” are MasterCard debit accounts’ and are processed through MasterCard’s debit network.” *Id.* (citing PO Resp. 23–24; Ex. 2004 ¶ 73; Ex. 1010, 21:12–22); *see id.* at 8 (similar argument). Petitioner also points out that Dr. Shamos “testified at his deposition that an indication of a debit network may be ‘a name’ of the network or the network ‘can be identified by addresses...**by numbers**...by strings....*The claim doesn’t specify. It just says there has to be an indication.*” *Id.* at 6–7 (quoting Ex. 1010, 25:1–17).

We agree with Petitioner's arguments that Easterly's barcode includes an indication of which debit network is to be used to process the payment. As pointed out by Petitioner, Easterly discloses: (1) the barcode includes the user's preferences identifying a specific route to settle a transaction and the merchant's instructions for settling the transaction, (2) a debit (EFT) network as one mechanism for processing and settling payment, and (3) routing preferences that allow a transaction to be routed to external debit or credit networks based on the lowest cost of the transaction to the merchant. *See* Pet. 36–37; Pet. Reply 5–6. Moreover, as pointed out by Petitioner, Patent Owner acknowledges that Easterly's barcode includes the debit account information for the user, and that a debit account number itself can indicate a debit network to be used for settling a transaction (*see* PO Resp. 23–24; Ex. 2004 ¶ 73; Ex. 1010, 21:12–22, 25:1–7). In view of the foregoing, contrary to Patent Owner's arguments, Easterly's barcode includes an indication of which debit network is to be used to process the payment.

In sum, based on the entire record, Petitioner shows by a preponderance of the evidence that the subject matter of limitations [1.4.4] and [1.4.5] would have been obvious to a person of ordinary skill in the art in view of the teachings of Easterly. *See* Pet. 31–33, 35–38; Pet. Reply 5–6.

f. [1.4.6] “wherein the indication of which debit network to be used includes (1) a user preferred network, (2) a provider preferred network and (3) a selected network, such that the scannable code includes all of (1) the user preferred network, (2) the provider preferred network and (3) the selected network,”

Petitioner contends that Easterly describes how the barcode may include a user's payment preferences for which network should clear a transaction (user preferred network) and the merchant's preferences

(provider preferred network) based on Easterly’s disclosure that the system accounts for user and merchant preferences for settlement, and that the barcode encodes the user and merchant preferences and instructions. *See* Pet. 39–41 (quoting Ex. 1005 ¶¶ 95–96, 124; citing Ex. 1003 ¶ 101; Pet. 35–36); Pet. Reply 8 (citing Ex. 1003 ¶¶ 102–103; Ex. 1005 ¶¶ 14, 95; Pet. 39–40). According to Petitioner, a person of ordinary skill in the art “would have found it obvious that a user preference could be a debit network as well as a credit network because Easterly describes examples in which debit networks are used to process a transaction.” Pet. 40 (quoting Ex. 1005 ¶ 14; citing Ex. 1003 ¶ 102); *see* Pet. Reply 8 (citing Ex. 1003 ¶¶ 102–103; Ex. 1005 ¶¶ 14, 95; Pet. 39–40). Petitioner asserts that, “because Easterly describes how the barcode data includes a user’s preferences such as the network that should process the transaction, and that a debit card network is an option for processing transactions, Easterly teaches that the barcode includes ‘a user preferred network.’” Pet. 40 (citing Ex. 1003 ¶¶ 102–103). Petitioner further contends that, “because Easterly teaches that the barcode may include instructions from the merchant regarding settling the transactions, and those instructions and preferences may include a preferred clearance route, Easterly teaches a ‘provider preferred network.’” Pet. 41 (citing Ex. 1003 ¶¶ 104–106); *see* Pet. Reply 8 (citing Ex. 1003 ¶¶ 104–105; Ex. 1005 ¶¶ 96, 124; Pet. 40–41).

Petitioner further asserts that “Easterly teaches that the barcode includes designated accounts and a specific route (‘selected network’) to settle the transaction” based on Easterly’s disclosure that the barcode has encoded detailed information, including a designation of particular accounts through which a transaction may be settled and an identification of a specific route to settle the transaction (e.g., from a checking account or by executing

an ACH transaction). Pet. 41 (quoting Ex. 1005 ¶¶ 28, 124); Pet. Reply 12 (citing Ex. 1003 ¶ 107; Ex. 1005 ¶¶ 28, 124; Pet. 41). According to Petitioner, a person of ordinary skill in the art “would have found it obvious that in some cases, the selected route may be for a debit network because Easterly gives an example in which a debit card network is used to process a transaction.” Pet. 41 (citing Ex. 1003 ¶¶ 107–108; Ex. 1005 ¶ 14); *see* Pet. Reply 12 (citing Ex. 1003 ¶¶ 107–108; Ex. 1005 ¶ 14; Pet. 41).

Petitioner further contends that a person of ordinary skill in the art “would have found it obvious for the barcode to include all of these preferences,” and “would have recognized it as beneficial to include the merchant and user preferences along with the selected network in the barcode so that if the transaction over the selected network fails or the debit network is otherwise unavailable, a new selected network can be determined based on those preferences.” Pet. 41–42 (quoting Ex. 1005 ¶ 20; citing Ex. 1003 ¶ 109); *see* Pet. Reply 10 (citing Ex. 1003 ¶¶ 109–111; Ex. 1009, 16:21–24; Pet. 41–43). Petitioner asserts that “failure of a debit network was a known possibility.” Pet. 42 (quoting Ex. 1009, 16:21–24); *see* Pet. Reply 10 (citing Ex. 1009, 16:21–24). According to Petitioner, “[b]y providing the merchant system with both the user preferences and merchant preferences through the barcode, the merchant system can apply a set of rules with those preferences to identify the new selected network.” Pet. 42 (citing Ex. 1003 ¶ 109); *see* Pet. Reply 10 (similar argument, citing Ex. 1003 ¶ 109; Pet. 41–42).

Petitioner asserts that “[a]pplying a set of rules with both merchant and user preferences to identify a new processing route was known in the art.” Pet. 42 (quoting Ex. 1005 ¶ 14; citing Ex. 1003 ¶ 110); *see* Pet. Reply 10–11 (similar argument, citing Ex. 1003 ¶ 110; Ex. 1008, 23:19–30;

Pet. 42). According to Petitioner, “using a hierarchical ranking of various entity preferences was known in the art.” Pet. 42 (quoting Ex. 1008, 23:18–30; citing Ex. 1003 ¶ 110). Petitioner further contends that a person of ordinary skill in the art

would have found it obvious that Easterly’s barcode includes each of the three pieces of information (e.g., three data fields) that identify (1) the user’s expressed preference for a network, (2) the merchant’s preferred network, and (3) the specific network that is to be used to settle the transaction (which may be either the user’s or the merchant’s network)

because “all three pieces of information allows the merchant system to determine a new selected network to process the transaction if the selected network identified in the barcode fails.” Pet. 42–43 (citing Ex. 1003 ¶ 111). Petitioner also asserts that a person of ordinary skill in the art “would have also found it obvious for the selected network to be the same as either the user’s preferred network or the provider’s preferred network. Otherwise, there would be no point to identifying preferences if those preferences were never selected as the route by which to process the transaction.” Pet. 43 (citing Ex. 1003 ¶ 112).

In response and referencing its arguments addressing limitation [1.4.4], Patent Owner asserts that Easterly’s “scannable code does not include a ‘user preferred network’ (as opposed to a user’s choice of debit card).” PO Resp. 25 (citing PO Resp. 23–25). We do not agree with Patent Owner’s argument for the same reasons as those explained immediately above in Section II.D.3.e.

Patent Owner further argues that “Easterly does not teach including the merchant preferred network in combination with the user preferred

network in the scannable code.” PO Resp. 25 (citing Ex. 2004 ¶ 78).

According to Patent Owner,

[i]n the context of Easterly, the potential failure of the user’s first preferred network might be a reason to include a backup network preference of the user in the event that the user’s first choice was unavailable. . . . The Petition’s rationale, however, does not support including the network preference of the merchant as the backup, since Easterly teaches that the merchant preferred network comes into play only when no user preferred network is specified in the scannable code.

Id. at 26 (citing Ex. 2004 ¶ 79).⁶

⁶ In the Sur-reply, Patent Owner presents the following new arguments for the first time: (1) “[t]he Petition fails to explain why a merchant system that already knows its own merchant preferences would need to encode this information into a barcode so that the same merchant system can apply a set of rules with those preferences to identify the newly selected network;” (2) the Petition “fails to meet the claim language, which requires that the selected debit network be identified in the scannable code, rather than something that the merchant system figures out on its own by applying rules to other debit networks identified in the scannable code;” and (3) “[t]he Petition has failed to meet its burden to demonstrate by a preponderance of the evidence that the relied on references fairly suggest including the selected debit network in combination with the customer preferred debit network and merchant preferred debit network in the claimed scannable code, as required by the Challenged Claims.” PO Sur-reply 14–16 (quoting Pet. 41–42). Patent Owner does not identify arguments in the Reply to which these Sur-reply arguments are responsive. *See id.* Patent Owner’s belated new arguments exceed the proper scope of a sur-reply and are not considered in rendering this Final Written Decision. *See* 37 C.F.R. § 42.23(b) (“A sur-reply may only respond to arguments raised in the corresponding reply”); Patent Trial and Appeal Board Consolidated Trial Practice Guide (“CTPG,” *available* at <https://www.uspto.gov/TrialPracticeGuideConsolidated>) 73–74 (“Sur-replies should only respond to arguments made in reply briefs”), 74 (“a reply or sur-reply that raises a new issue . . . may not be considered.”)

In the Reply, Petitioner asserts that Patent Owner’s argument “is incorrect because Easterly ‘is not... just limited to customer’s preferences’ and ‘[m]erchants themselves may also establish a profile and incorporate preferences.’” Pet. Reply 9 (quoting Ex. 1005 ¶ 96; citing Ex. 1003 ¶ 104; Pet. 40). According to Petitioner, “[i]nclusion of the user’s preferences **and** the merchant’s preferences in Easterly’s barcode are not mutually exclusive, as Patent Owner suggests.” *Id.* at 10 (citing Ex. 1003 ¶¶ 105–106; Ex. 1005 ¶¶ 96, 124; Pet. 40–41); *see id.* at 9–10 (quoting Ex. 1005 ¶ 124; citing Ex. 1003 ¶ 105; Pet. 40–41; PO Resp. 25–26), 11 (citing Ex. 1005 ¶ 124; PO Resp. 26). Petitioner contends that “Easterly teaches that its barcode includes information from the ‘customer’s profile’ and ‘**also** include[s] instructions from the merchant **as well** with regards to settling the transaction.’” *Id.* at 10 (quoting Ex. 1005 ¶ 124; citing Ex. 1003 ¶ 105; Pet. 40–41); *see id.* at 13–14 (similar argument, quoting Ex. 1005 ¶ 124).

In the Sur-Reply, Patent Owner asserts that Petitioner’s Reply mixes quotes from paragraphs 14, 95, 96, and 124, and asserts that when these four paragraphs “are read as a whole, it is clear that Easterly is describing a scannable code with either a user preferred network or a provider preferred network – not both.” PO Sur-reply 3; *see id.* at 4–6 (quoting Ex. 1005 ¶¶ 14, 23, 26, 35, 95–96, 124). Patent Owner emphasizes that paragraph 124 discloses that the customer’s profile might include a route for settling the transaction, and that paragraphs 95 and 96 disclose that a customer preferred debit network might be included, and in the case where the customer preference is not included, a merchant preference can be used. *See id.* at 7. According to Patent Owner,

[t]he last two sentences of paragraph [0124] state that the barcode may include information “from the user’s profile” (e.g.,

“DDA (direct deposit account) account numbers, credit and debit stored value card account numbers, reward program information, acceptance of promotional offers from selected merchants, and the customer’s preference to receive coupons”) and “instructions from the merchant as well with regards to settling the transaction.”

Id. (citing Ex. 1005 ¶¶ 23, 124) (footnote omitted). According to Patent Owner,

[r]ead together with paragraphs [0095]–[0096], the last two sentences of [0124] mean that when the customer preferred debit network is not included in the user’s profile, merchant settlement instructions are included along with other information from the user’s profile (like DDA numbers account numbers, rewards information, Ex. 1005 at [0023]) in the barcode.

Id. (citing Ex. 2004 ¶¶ 53–55). Patent Owner further asserts that

Easterly unequivocally provides that a customer preferred debit network and a merchant preferred debit network are not included together in the barcode, as required by each of the independent claims of the ’785 Patent. Rather, in Easterly, the merchant preferred debit network is only included in the barcode when no user preferred debit network is present in the user’s profile.

PO Sur-reply 7–8 (citing Ex. 1005 ¶¶ 95–96).

We agree with Petitioner’s arguments that Easterly’s disclosures do not limit a merchant’s preferences only coming into play when no user preferred network is specified. Instead, we are persuaded by a preponderance of the evidence that, when considering the entirety of Easterly’s disclosures, and without imputing Patent Owner’s emphasized sentence of paragraph 96 to Easterly’s other disclosures, Easterly teaches or suggests the barcode is capable of including both the customer’s settlement

preferences and the merchant's settlement preferences. *See* Ex. 1005 ¶¶ 14, 95, 96, 124.

We do not agree with Patent Owner's reading of paragraph 96 of Easterly. Although this paragraph explicitly states "[w]here a customer has expressed no preference for possible clearance routes, the merchant *can* indicate preferences of its own," this sentence does not mandate that a merchant's preference only comes into play when no user preferred network is specified. Ex. 1003 ¶ 96 (emphasis added). Indeed, this sentence includes permissive language (i.e., "can") and it is preceded by another sentence that begins with the words "[f]or example." *Id.* In our view, this particular scenario is merely one example of a situation contemplated by Easterly, but it does not undermine the overwhelming evidence indicating that Easterly also contemplates that the barcode is capable of including both the customer's settlement preferences and the merchant's settlement preferences. *See* Ex. 1005 ¶¶ 14, 95, 96, 124.

In the Response, Patent Owner further argues that paragraphs 28 and 124 of Easterly are cited in the Petition "for the idea that a 'selected network' is present in the scannable code," and contends that "Easterly contains no disclosure that any 'selected network' is included in the scannable code." PO Resp. 26 (citing Ex. 2004 ¶ 80). According to Patent Owner, "[i]mplicit in the claimed 'selected network' limitation is the notion that, without this third separate item of information, the 'selected network' would not be known to the device scanning the code. . . . Otherwise, the 'selected network' limitation would be surplusage." *Id.* (citing Ex. 2004 ¶ 81). Patent Owner further contends that "Easterly does not disclose or suggest any . . . system that would use both a user preferred network and a merchant preferred network as inputs to select a network, as set forth in the

Specification of the '785 Patent.” *Id.* at 26–27 (citing Ex. 2004 ¶ 81). Patent Owner reasons, “[a]bsent such a system, there would be no reason to include a separate ‘selected network’ along with the user preferred network and the merchant preferred network in the scannable code, as claimed.” *Id.* at 27 (citing Ex. 2004 ¶ 81).

In the Reply, Petitioner again points out that Easterly teaches the barcode designates particular accounts through which a transaction may be settled and identifies a specific route to settle the transaction. Pet. Reply 12 (citing Ex. 1003 ¶¶ 107–108; Ex. 1005 ¶¶ 14, 28, 124; Pet. 41). Petitioner further contends that Patent Owner’s argument is incorrect because it “demands that Easterly disclose ‘a system that would use both a user preferred network and a merchant preferred network as inputs to select a network.’” Pet. Reply 12 (quoting PO Resp. 26). According to Petitioner, “claim 1 of the '785 patent does not require a ‘system’ to select a particular network to process the transaction.” *Id.* at 13 (citing Ex. 1001, claim 1).

In the Sur-reply, Patent Owner contends that “the Reply fails to even muster an argument that the third recited element (the selected network) is met by the cited references.” PO Sur-reply 9;⁷ *see id.* at 8–9 (reproducing several portions of Pet. Reply 8–10).

⁷ In the Sur-reply, Patent Owner argues for the first time that “the Petition seeks to simply read the third data element out of the claim entirely, arguing that it would have been obvious for ‘the selected network to be the same as either the user’s preferred network or the provider’s preferred network.’” PO Sur-reply 9–10 (quoting Pet. 43). Patent Owner does not identify arguments in the Reply to which this Sur-reply argument is responsive. *See id.* Patent Owner’s belated argument exceeds the proper scope of a sur-reply and are not considered in rendering this Final Written Decision. *See* 37 C.F.R. § 42.23(b); CTPG 73–74.

Once again, we agree with Petitioner's arguments. Although Patent Owner reproduces several portions of the Reply (*see* PO Sur-reply 8–9), Patent Owner's arguments overlook and do not address Petitioner's assertion (reiterated again in the Reply) that the selected network is taught or suggested by Easterly's disclosure that the barcode designates particular accounts through which a transaction may be settled and identifies a specific route to settle the transaction. Pet. 41 (citing Ex. 1003 ¶¶ 107–108; Ex. 1005 ¶¶ 28, 124); Pet. Reply 12 (citing Ex. 1003 ¶¶ 107–108; Ex. 1005 ¶¶ 14, 28, 124). Patent Owner's arguments also overlook that Petitioner asserts that a person of ordinary skill in the art would have recognized it as beneficial to include the merchant and user preferences along with the selected network in the barcode. *See* Pet. 41–43 (quoting Ex. 1005 ¶¶ 14, 20; Ex. 1009, 16:21–24; citing Ex. 1003 ¶¶ 109–111; Ex. 1008, 28:18–30); Pet. Reply 10 (citing Ex. 1003 ¶¶ 109–111; Pet. 41–43). We agree with Petitioner, and find that Easterly discloses or suggests a system that would use both a user preferred network and a merchant preferred network as inputs to select a network. To the extent Patent Owner argues that Easterly fails to teach a system that affirmatively selects a particular network to process the transaction, as pointed out by Petitioner (*see* Pet. Reply 12), this argument is not commensurate in scope with the limitations of claim 1.

In the Response, Patent Owner also contends that the Petitioner's obviousness rationale to include the merchant and user preferences along with the selected network in the barcode so a new selected network can be determined based on the preferences in the event of failure or unavailability does not support including the network preference of the merchant as a backup. PO Resp. 25–26 (quoting Pet. 41–42). Patent Owner reiterates its argument that Easterly teaches that the merchant preferred network only

comes into play when no user preferred network is specified. *See id.* at 26 (citing Ex. 2004 ¶ 79). According to Patent Owner, “[i]n the context of Easterly, the potential failure of the user’s first preferred network might be a reason to include a backup network preference of the user in the event that the user’s first choice was unavailable.” *Id.* (citing Ex. 2004 ¶ 79) (emphasis omitted).

In the Reply, Petitioner asserts that Patent Owner’s argument fails because it ignores Easterly’s disclosure that the barcode includes preferences from both a user and a merchant, and fails to respond to the Petition’s additional evidence—Exhibits 1008 and 1009. *See* Pet. Reply 11. For the same reasons as those explained above, we do not agree with Patent Owner that Easterly’s disclosures are limited to a merchant’s preferences only coming into play when no user preferred network is specified. As we explain above, this is merely an example of situation contemplated by Easterly, but it does not undermine the overwhelming evidence indicating that Easterly also contemplates that the barcode is capable of including both the customer’s settlement preferences and the merchant’s settlement preferences. *See* Ex. 1005 ¶¶ 14, 95, 96, 124.

In the Sur-reply, and presumably responsive to Petitioner’s assertion that Patent Owner fails to respond to the Petition’s additional evidence (*see* Pet. Reply 11), Patent Owner asserts that Easterly, Laracey (Ex. 1008), and Lapsley (Ex. 1009) fail to show that applying a set of rules with both merchant and user preferences to identify a new processing route was known in the art. *See* PO Sur-reply 11 (quoting Pet. 42; citing Ex. 1005 ¶ 14; Ex. 1008, 23:18–30; Ex. 1009 16:21–24; Pet. 41–42), 15–16 (similar argument; quoting Pet. 42). According to Patent Owner, “[t]he preference tables at Easterly’s server relate solely to the retailer’s preferences,” and

“fails to suggest the application of rules for selecting between a user preferred debit network and a provider preferred debit network.” *Id.* at 11–12 (footnote omitted); *see id.* at 15 (similar argument). Patent Owner contends that Laracey does not discuss or suggest specifying debit networks, and more specifically argues that “[r]anking different payment accounts is a far cry from ranking different debit networks.” *Id.* at 12–13 (quoting Ex. 1008, 23:18–30; citing Ex. 2004 ¶ 67); *see id.* at 15 (similar argument). Patent Owner further asserts that Lapsley fails to discuss or suggest specifying debit networks, because “Lapsley simply refers to the common situation in which a customer whose transaction fails is given an opportunity to use a different payment instrument.” *Id.* at 13 (quoting Ex. 1009, 16:21–26; citing Ex. 2004 ¶ 70); *see id.* at 15 (similar argument). Related to the previous argument, Patent Owner further contends that Easterly, Laracey, and Lapsley in combination do not suggest selecting between a user preferred network and a provider preferred network stored within the scannable code, because the teachings of Easterly, Laracey, and Lapsley, “taken together, do not fairly suggest the application of rules for selecting between a user preferred debit network and a provider preferred debit network.” PO Sur-reply 13–14 (citing Ex. 2004 ¶¶ 66–71), *see id.* at 15 (similar arguments). According to Patent Owner,

[t]he Petition does not provide any explanation why a [person of ordinary skill in the art] would seek to move information from Easterly’s retailer preference table from Easterly’s server to its barcode. Nor does the Petition explain how a [person of ordinary skill in the art] would leap from ranking different payment accounts or payment instruments (in Laracey and Lapsley) to ranking different debit networks for transaction processing.

Id. at 14.

We do not agree with Patent Owner's arguments because they mischaracterize the specific arguments presented and developed by Petitioner to actually account for limitation [1.4.6], and the evidence of the general background knowledge in the art introduced by Petitioner to better explain why a person of ordinary skill in the art would apply a set of rules when selecting a network to process a transaction. In contrast to Patent Owner's arguments, Petitioner does not rely on the combination of Easterly's teachings of storing preference tables in a server, Lapsley's teachings of allowing a customer to specify a different payment instrument, and Laracey's teachings of ranking payment accounts to account for limitation [1.4.6]. *See* Pet. 39–42. Rather, Petitioner relies on Easterly's disclosures that the barcode includes a user's payment preferences (*see* Pet. 39 (citing Ex. 1005 ¶ 95)), the barcode may also include merchant preferences (*see* Pet. 40–41 (citing Ex. 1005 ¶¶ 96, 124)), and the barcode includes designated accounts and a specific route to settle the transaction (*see* Pet. 41 (citing Ex. 1005 ¶ 124)), which ultimately results in the barcode including all of the data required to authenticate authorize, clear and settle a transaction (*see* Pet. 41 (quoting Ex. 1005 ¶ 20)). Petitioner also relies on Easterly's exemplary disclosure of a debit card network to process a transaction (*see* Pet. 40 (citing Ex. 1005 ¶ 14)) and disclosure of routing preference tables (e.g., set of rules or a ranking) (*see* Pet. 41 (citing Ex. 1005 ¶ 14)). Petitioner merely introduces Lapsley as background evidence that failure of a debit network was a known possibility, and Laracey as background evidence that using a hierarchical ranking of various entity preferences was known in the art. Pet. 42 (quoting Ex. 1009, 16:21–24; citing Ex. 1008, 23:18–30).

In sum, based on the entire record, Petitioner shows by a preponderance of the evidence that the subject matter of limitation [1.4.6] would have been obvious to a person of ordinary skill in the art in view of Easterly's teachings. *See* Pet. 39–43.

g. [1.4.7] “the scannable code also including an identification of rewards to be provided when the selected network is used and [1.4.8] an identification of one or more goods or services associated with the total payment amount;”

Petitioner contends that Easterly discloses that the customer's profile, which is included in the barcode, includes a user's preferences for allocating reward points. *See* Pet. 44 (quoting Ex. 1005 ¶¶ 23, 24, 124; citing Ex. 1003 ¶¶ 114–115). Petitioner further asserts that the rewards within the barcode are applied when the transaction is processed. *See* Pet. 44–45 (quoting Ex. 1005 ¶¶ 18, 28, 80; citing Ex. 1003 ¶¶ 116–118). According to Petitioner, a person of ordinary skill in the art “would have found it obvious that the rewards within the barcode are provided when the transaction (which identifies the selected network . . .) is processed.” Pet. 45 (citing Ex. 1003 ¶¶ 116–118; Pet. 34–35).

Petitioner also asserts that Easterly discloses that the merchant identifies items subject to the transaction by incorporating in the barcodes all relevant information regarding the transaction including an identification of the items that are the subject of the transaction. *See* Pet. 45–46 (quoting Ex. 1005 ¶ 18; citing Ex. 1003 ¶¶ 120–121). Petitioner contends that Luz discloses a barcode in the form of a symbology that encodes payment information including identification of one or more goods or services associated with the total payment amount, merchant information, purchaser information, desired products or services, a cost of the products or the

services, a tax amount, and a total price. *See* Pet. 46 (quoting Ex. 1006, claim 6; citing Ex. 1006 ¶ 40; Ex. 1003 ¶ 122). Petitioner further asserts that a person of ordinary skill in the art “would have found it obvious for the barcode to include this information as taught by Luz.” *Id.* (citing Ex. 1003 ¶ 122). According to Petitioner, “because Easterly describes that the barcode may include information on rewards, and the barcode is specific to a transaction, Easterly renders obvious ‘*the scannable code also including an identification of rewards to be provided when the selected network is used*’ as claimed.” Pet. 45 (citing Ex. 1003 ¶ 119). Petitioner further asserts “because Easterly describes identifying the goods associated with the transaction, and Luz teaches including that information within the barcode, Easterly and Luz render obvious ‘*the scannable code also including ... an identification of one or more goods or services associated with the total payment amount*’ as claimed.” Pet. 46 (citing Ex. 1003 ¶ 122).

Patent Owner does not address Petitioner’s showing for these limitations of claim 1. *See* PO Resp. 23–28. In any event, the burden of persuasion remains on Petitioner to demonstrate unpatentability. *See Dynamic Drinkware*, 800 F.3d at 1378. Based on the entire record, Petitioner shows by a preponderance of the evidence that the subject matter of limitations [1.4.7] and [1.4.8] would have been obvious to a person of ordinary skill in the art in view of the combined teachings of Easterly and Luz. *See* Pet. 44–46.

h. [1.5] “determining which debit network is to be used to process the payment based on the indication provided in the embedded payment information in the received scannable code;”

Petitioner contends that Easterly discloses using the information embedded in the barcode to process the transaction, and that the barcode

includes information identifying all relevant information regarding the transaction, including a specific route to settle the transaction. *See* Pet. 47 (quoting Ex. 1005, code (57), ¶¶ 13, 18, 20, 124; citing Ex. 1003 ¶¶ 124–127). According to Petitioner, “because Easterly describes settling financial transactions using a specific route (i.e., a debit network) identified in the barcode, Easterly renders obvious ‘*determining which debit network is to be used to process the payment based on the indication provided in the embedded payment information in the received scannable code*’ as claimed.” Pet. 47–48 (citing Ex. 1003 ¶ 128).

Patent Owner does not address Petitioner’s showing for this limitation of claim 1. *See* PO Resp. 23–28. Nevertheless, the burden of persuasion remains on Petitioner to demonstrate unpatentability. *See Dynamic Drinkware*, 800 F.3d at 1378. Based on the entire record, Petitioner shows by a preponderance of the evidence that the subject matter of limitation [1.5] would have been obvious to a person of ordinary skill in the art in view of the teachings of Easterly. *See* Pet. 47–48

i. [1.6] “*sending the payment amount and the user’s debit account information to the determined debit network; and [1.7] receiving an indication that the payment was processed by the determined debit network*”

Petitioner contends that “Easterly teaches that if ‘the purchase is approved, then settlement of the purchase may proceed as an ordinary ACH settlement, or a credit settlement, or by any other suitable method.’” Pet. 48 (quoting Ex. 1005 ¶ 33) (emphasis omitted); *see* Pet. 49 (quoting same). According to Petitioner, “in the example where the user has selected a debit network as the preferred network, it would have been obvious that the transaction proceeds as a normal debit transaction.” Pet. 48 (citing Ex. 1003 ¶¶ 129–130); *see* Pet. 49 (quoting same). Petitioner asserts that a person of

ordinary skill in the art “would have further understood that a normal debit transaction involves sending the bank account information to the debit network because without that there is no way to know from which account to draw the money.” Pet. 48 (citing Ex. 1003 ¶¶ 129–130).

Petitioner also contends that Luz teaches transmitting the data in a barcode to process the transaction. *See* Pet. 48–49 (quoting Ex. 1006 ¶ 57). According to Petitioner, “it would have been obvious for Easterly, as part of an ordinary transaction, to submit the information within the barcode, which includes the payment amount and account numbers.” Pet. 49 (citing Pet. 34–36; Ex. 1003 ¶¶ 131–132). Petitioner further asserts:

because Easterly processes debit payments as ordinary, and a [person of ordinary skill in the art] would have recognized that doing so would have to include providing the total amount to be transferred, as well as providing the specific account, as in Luz’s example, Easterly and Luz render obvious “*sending the payment amount and the user’s debit account information to the determined debit network*” as claimed.

Id. (citing Ex. 1003 ¶ 133).

Petitioner also contends that, based on Easterly’s example where a user has selected a debit network as the preferred network and where it would have been obvious that the transaction proceeds as a normal debit transaction, a person of ordinary skill in the art “would have further understood that a normal debit transaction involves some type of indication that the payment was processed, such as an updated balance to the merchant’s account.” Pet. 49 (citing Ex. 1003 ¶¶ 134–135). Petitioner also asserts that Luz provides an example in which a confirmation is provided to the purchaser and merchant that the payment was sent and/or received. *See* Pet. 50 (quoting Ex. 1006 ¶¶ 58, 66; citing Ex. 1003 ¶ 136). According to Petitioner, “because Easterly describes processing the transaction as normal,

and it would have been obvious for that normal procedure to include a confirmation as taught by Luz, Easterly and Luz render obvious ‘*receiving an indication that the payment was processed by the determined debit network*’ as claimed.” *Id.* (citing Ex. 1003 ¶ 137).

Patent Owner does not address Petitioner’s showing for these limitations of claim 1. *See* PO Resp. 23–28. In any event, the burden of persuasion remains on Petitioner to demonstrate unpatentability. *See Dynamic Drinkware*, 800 F.3d at 1378. Based on the entire record, Petitioner shows by a preponderance of the evidence that the subject matter of limitations [1.6] and [1.7] would have been obvious to a person of ordinary skill in the art in view of the combined teachings of Easterly and Luz. *See* Pet. 48–50.

j. Summary

Based on the entire record, Petitioner shows by a preponderance of the evidence that the subject matter of claim 1, as a whole, would have been obvious to a person of ordinary skill in the art in view of the combined teachings of Easterly and Luz. *See* Pet. 44–46. Accordingly, based on the entire record, Petitioner has established by a preponderance of the evidence that claim 1 is unpatentable under 35 U.S.C. § 103(a) over Easterly and Luz.

4. Analysis of Independent Claims 8 and 15

Independent claims 8 and 15 recite limitations similar to the limitations recited in claim 1 and Petitioner relies on its analysis addressing claim 1 to address independent claims 8 and 15. *See* Ex. 1001, 12:32–64, 13:15–14:17; Pet. 56–58 (citing Ex. 1003 ¶¶ 154–165; Pet. 25–50), 59–61 (citing Ex. 1003 ¶¶ 172–183; Pet. 25–50). Patent Owner’s arguments addressing independent claims 8 and 15 rely on the same arguments

addressed above in the context of independent claim 1. *See* PO Resp. 23–28. For the same reasons we identify above, we agree with Petitioner’s analysis and we disagree with Patent Owner’s arguments.

Based on the entire record and for the same reasons as those explained above addressing claim 1, Petitioner has established by a preponderance of the evidence that claims 8 and 15 are unpatentable under 35 U.S.C. § 103(a) over Easterly and Luz.

5. Analysis of Dependent Claims 2, 3, 6, 7, 9, 10, 13, 14, 16, 17, 20, and 21

Claims 2, 3, 6, and 7 depend directly or indirectly from claim 1. *See* Ex. 1001, 12:16–19, 12:26–30. Claims 9, 10, 13, and 14 depend directly or indirectly from claim 8. *See id.* at 12:65–13:3, 13:10–14. Claims 16, 17, 20, and 21 depend directly or indirectly from claim 15. *See id.* at 14:17–21, 14:28–31. We have reviewed Petitioner’s contentions and cited supporting evidence addressing how Easterly teaches or suggests each of the additional limitations recited in dependent claims 2, 3, 6, 7, 9, 10, 13, 14, 16, 17, 20, and 21. *See* Pet. 50–52, 55–56, 58–59, 61–62.

Patent Owner does not substantively address Petitioner’s showing addressing the limitations of dependent claims 2, 3, 6, 7, 9, 10, 13, 14, 16, 17, 20, and 21. *See* PO Resp. 23–35. In any event, the burden of persuasion remains on Petitioner to demonstrate unpatentability. *See Dynamic Drinkware*, 800 F.3d at 1378.

Based on the entire record, including the reasons explained above addressing independent claims 1, 8, and 15, Petitioner has demonstrated by a preponderance of the evidence that the subject matter of dependent claims 2, 3, 6, 7, 9, 10, 13, 14, 16, 17, 20, and 21 would have been obvious to a person of ordinary skill in the art in view of the combined teachings of Easterly and

Luz. Accordingly, based on the entire record, Petitioner has established by a preponderance of the evidence that claims 2, 3, 6, 7, 9, 10, 13, 14, 16, 17, 20, and 21 are unpatentable under 35 U.S.C. § 103(a) over Easterly and Luz.

6. Analysis of Dependent Claims 4, 11, and 18

Claim 4 depends directly from independent claim 1 and recites “wherein the debit network is selected based on the location at which the payment is initiated.” Ex. 1001, 12:20–22. Dependent claims 11 and 18 recite similar limitations. *Id.* at 13:4–6, 14:22–24. Petitioner contends that Easterly teaches that the selection of a debit network may consider the preferences of different merchants, and reasons that different merchants may have different preferences for debit networks. *See* Pet. 53 (citing Ex. 1003 ¶ 144; Ex. 1005 ¶ 96). According to Petitioner, “because the selection of [a] debit network may be based on each particular, different merchant (i.e., a particular location), it would have been obvious that the selection is based on location.” *Id.* (citing Ex. 1003 ¶ 144). Petitioner notes that Easterly discloses that “[m]erchants themselves may also establish a profile and incorporate preferences ... **the merchant can indicate preferences of its own that could be used to advantageously clear a transaction through the least expensive or fastest route.**” *Id.* (quoting Ex. 1005 ¶ 96; citing Ex. 1003 ¶ 144; Pet. 39–43). According to Petitioner, “because a particular merchant (i.e., a particular location) will affect which debit network is selected, Easterly renders obvious ‘*wherein the debit network is selected based on the location at which the payment is initiated*’ as claimed.” Pet. 53 (citing Ex. 1003 ¶ 145). For dependent claims 11 and 18, Petitioner relies on its analysis for dependent claim 4. *See* Pet. 59 (citing Ex. 1003 ¶ 168), 61 (citing Ex. 1003 ¶ 186).

Patent Owner contends that there is no disclosure in Easterly that a debit network is selected based on location. *See* PO Resp. 29 (citing Ex. 2004 ¶ 88), 32 (citing Ex. 2004 ¶ 101), 34 (citing Ex. 2004 ¶ 115). According to Patent Owner, Easterly discloses in paragraph 24 “that the customer’s location may be used to decide which time-sensitive coupons may be sent to the customer, but there is no disclosure that location plays any role at all in selecting a debit network.” *Id.* at 29 (citing Ex. 2004 ¶ 89). Patent Owner contends that, “[e]ven if Easterly discloses that different merchants can have different debit network preferences, there is no disclosure that such a preference is based on the location where the payment is initiated, and certainly no disclosure that any selection is based on location.” *Id.* (citing Ex. 2004 ¶ 89).

In the Reply, Petitioner asserts that “[t]he Petition equates the claimed ‘location’ to one of different merchants, e.g., TJ. Maxx or CVS,” but Patent Owner’s argument “suggest[s] that the claimed ‘location’ is limited to geographic location, e.g., East Coast or West Coast.” Pet. Reply 14–15 (citing Ex. 1003 ¶¶ 144–145; Pet. 53; PO Resp. 29). Petitioner asserts that it is improper to import geography into the claims from examples in the ’785 Patent Specification because there is no indication that patentee intended to limit claim 4 to a geographic location. *See id.* at 15 (quoting *EPOS Techs. Ltd. V. Pegasus Techs. Ltc.*, 766 F.3d 1338, 1341 (Fed. Cir. 2014); citing Ex. 1010, 36:2–25). Petitioner asserts that, in any event, Easterly renders claim 4 obvious even under Patent Owner’s suggestion that a location means a geographic location. *See id.* at 15–16 (quoting Ex. 1005 ¶ 21; Ex. 1010, 37:1–7; citing Ex. 1003 ¶ 144; Ex. 1005 ¶ 96; Pet. 53).

In the Sur-reply, Patent Owner contends that location in terms of geography is the plain and ordinary meaning of location. *See* PO Sur-

reply 17. According to Patent Owner, “[i]f Petitioner contended that a different meaning should apply to ‘location,’ it should have so articulated it in the Petition.” *Id.* Patent Owner further asserts that the only citation to Easterly in the portion of the Reply addressing the Petition corresponds to paragraph 96 of Easterly. *See id.* at 17–18 (quoting Ex. 1005 ¶ 96).

Reiterating arguments addressing claim 1, Patent Owner contends that Petitioner cannot rely on the second half of the sentence in paragraph 96 addressing merchant preferences to clear a transaction through the least expensive or fastest route, while ignoring the first half of the same sentence that a customer has expressed no preference for possible clearance routes. *See id.* at 18. According to Patent Owner, “[c]laim 4 must be read as a whole – including the limitations from the base claim, which require, *inter alia*, that both the customer preferred debit network and the provider preferred debit network be included in the scannable code together.” *Id.*

Even if we agree with Patent Owner’s arguments that location in terms of geography is the plain and ordinary meaning of “location,” Petitioner effectively addresses this meaning. The Petition twice equates “a particular location” with Easterly’s disclosure of a “different/ particular merchant.” *See Pet.* 53. At the time of the Decision on Institution, which was based on the preliminary record, we did not fully appreciate that Petitioner equates each different particular merchant (e.g., TJ Maxx, CVS) with a particular location (e.g., physical, geographic, and/or corporate location of the particular merchant). Based on Petitioner’s position that Easterly’s different particular merchants correspond to different particular locations, and Easterly’s teaching that the selection of a debit network may consider the preferences of different merchants (*see Pet.* 53), we are persuaded by a preponderance of the evidence that it would have been

obvious to a person of ordinary skill in the art that the selection of a debit network is based on the location of the particular merchant at which payment is initiated..

For the same reasons as those explained above in Section II.D.3.f., we do not agree with Patent Owner’s arguments that the teachings of Easterly are limited to a merchant’s preferences only coming into play when no user preferred network is specified. As we explain above, this is merely an example of situation contemplated by Easterly, but it does not undermine the overwhelming evidence indicating that Easterly also contemplates that the barcode is capable of including both the customer’s settlement preferences and the merchant’s settlement preferences. *See* Ex. 1005 ¶¶ 14, 95, 96, 124.

In sum, based on the entire record, including the reasons set forth above addressing claims 1, 8, and 15, Petitioner shows by a preponderance of the evidence that the subject matter of claims 4, 11, and 18 would have been obvious to a person of ordinary skill in the art in view of the teachings of Easterly. *See* Pet. 52–53. Accordingly, based on the entire record, Petitioner has established by a preponderance of the evidence that claims 4, 11, and 18 are unpatentable under 35 U.S.C. § 103(a) over Easterly and Luz.

7. Analysis of Dependent Claims 5, 12, and 19

Claim 5 depends directly from independent claim 1 and recites “wherein the debit network is selected based on time of day at which the payment is initiated.” Ex. 1001, 12:23–25. Dependent claims 12 and 19 recite similar limitations. *Id.* at 13:7–9, 14:26–28. Petitioner contends that Easterly discloses that merchant preferences for settlement routes may be used, and that “routing preferences are set so as to find the lowest cost for the retailer, such as the time.” Pet. 53 (citing Ex. 1003 ¶ 146; Ex. 1005 ¶ 96;

Pet. 52–53). Petitioner points out that Easterly discloses the server contains routing preference tables that allow a transaction to be routed to external debit or credit networks based upon the lowest cost of that transaction to a retailer, and “[i]n so doing, the eCache server can make predetermined choices for structuring the transaction, taking into consideration such factors as transactional costs charged by other financial networks for various types of transactions, **the time for settlement of the transaction**.” Pet. 54 (quoting Ex. 1005 ¶ 14; citing Ex. 1003 ¶ 146). According to Petitioner, a person of ordinary skill in the art:

would have found it obvious for the time of day to affect which network the merchant may prefer (and thus affect, in some cases, the network that becomes selected). . . . For example, Easterly notes that one option for settlement is an international ACH: “International banks also participate in such bank to bank transfers using the International ACH (IAT) proprietary network.” . . . A [person of ordinary skill in the art] would have understood that it may be faster for a merchant to settle when a bank is open for ACH and hours may vary around the world. . . . Accordingly, because Easterly’s barcode may include the merchant preferences for advantageously routing a transaction, and that merchants may advantageously consider the time for settlement, it would have been obvious in view of Easterly that the debit network may be selected based at least in part on the time of day.

Pet. 54 (quoting Ex. 1005 ¶ 13; citing Ex. 1003 ¶¶ 147–148). Petitioner further asserts that, “because selection of a settlement route may consider time, Easterly renders obvious ‘*wherein the debit network is selected based on time of day at which the payment is initiated*’ as claimed.” Pet. 54–55 (citing Ex. 1003 ¶ 149). For dependent claims 12 and 19, Petitioner relies on its analysis for dependent claim 5. *See* Pet. 59 (citing Ex. 1003 ¶ 169), 61–62 (citing Ex. 1003 ¶ 187).

Patent Owner contends that, although “Easterly uses the word ‘time,’ . . . ‘time for settlement of the transaction’ refers to the time that the merchant will be paid (that is, find money in its bank account), not the ‘time of day at which the payment is initiated,’ as required by the claim.” PO Resp. 30 (quoting Ex. 1005 ¶ 14; Ex. 2004 ¶ 92), According to Patent Owner:

Networks often delay payments to merchants, and in general a merchant who is willing to wait longer for money will pay a lower processing fee. . . . This occurs because settlement institutions collect interest on overnight loans they make. . . . If a merchant elects to be paid immediately, the settlement institution cannot lend the corresponding funds, and therefore charges a higher fee.

Id. (citing Ex. 2004 ¶ 92). Patent Owner asserts that, therefore, Easterly’s disclosure that routing preferences are set so as to find the lowest cost for the retailer, such as the time for settlement of the transaction, “is not based on the ‘time of day at which the payment is initiated.’” *Id.* (citing Ex. 2004 ¶ 92).

In the Reply, Petitioner asserts that Patent Owner’s arguments are flawed because it relies exclusively on Dr. Shamos’s Declaration which does not cite to record evidence and does not explain the basis for the opinions. *See* Pet. Reply 16–17 (citing Ex. 2004 ¶¶ 91–92; PO Resp. 29–30). Petitioner asserts that Dr. Shamos’s testimony should be given little weight and Patent Owner’s arguments should fail on this basis alone. *See id.* at 17 (quoting 37 C.F.R. § 42.65(a)). Petitioner further asserts that Patent Owner’s arguments are flawed because Dr. Shamos testified at his deposition that a merchant may want to receive its money immediately, which amounts to settling the transaction. *See id.* (quoting Ex. 1010, 10:3–6). According to Petitioner, “[i]n this instance, the merchant may want

to express a preference for a specific debit network.” *Id.* (citing Ex. 1010, 9:20–10:8). Petitioner further asserts that Dr. Shamos’s “testimony is consistent with the Petition’s explanation that a [person of ordinary skill in the art] would have found it obvious ‘for the time of day [the payment is initiated] to affect which network the merchant may prefer (and thus, affect, in some cases, the network that becomes selected).’” *Id.* at 17–18 (quoting Pet. 54 (Petitioner’s alteration in brackets); citing Ex. 1003 ¶ 147).

In the Sur-reply, Patent Owner contends that “no evidence is needed to substantiate the undisputed fact that the time the merchant will be paid (that is, find money in its bank account) is not the ‘time of day at which the payment is initiated,’ as claimed.” PO Sur-reply 20. Patent Owner contends that the burden of persuasion is on Petitioner to show that the terms mean the same thing, it is not Patent Owner’s burden to show the opposite. *See id.* Patent Owner further asserts that Petitioner’s argument, based on Dr. Shamos’s deposition testimony that, in some instances, a merchant will receive payment at the time that payment is initiated is not a fair reading of the testimony. *See id.* at 20–22 (quoting Ex. 1010; 9:20–10:8; 39:5–40:19). According to Patent Owner, “Dr. Shamos’ deposition testimony was crystal clear that, at the time of the ’785 Patent, there was no way for the merchant to get paid at the same time (or within minutes of) the transaction.” *Id.* at 22.

We agree that it is Petitioner’s burden to show that Easterly’s disclosure of the “time for settlement of the transaction” encompasses the narrower limitation of claims 5, 12, and 19 that requires “a time of day at which the payment is initiated.” Ex. 1005 ¶ 14. The Petition addresses considerations of “time,” “time of day,” and “the time for settlement of the transaction,” but fails to sufficiently explain why Easterly’s disclosure of the

“time for settlement of the transaction” teaches or suggests “a time of day at which the payment is initiated.” *See* Pet. 53–54. Indeed, as we explain in the Institution Decision, Easterly’s disclosure regarding “time for settlement of the transaction” is just as likely to refer to the time elapsed for a payment to reach a merchant. Dec. on Inst. 30–31. Petitioner does not present any new evidence during trial that would undermine this preliminary finding. *See* Pet. Reply 16–18. We also are not persuaded by Petitioner’s Reply argument that Dr. Shamos’s testimony regarding a merchant wanting to receive its money immediately supports Petitioner’s contentions. As highlighted in the Sur-reply addressing Dr. Shamos’s deposition testimony, although a merchant may want to receive its money immediately, it is unclear when a merchant will, in effect, receive its money i.e., at the time of day that the payment is initiated, or at some later time such as the next day. *See* Ex. 1010, 9:20–10:8; 39:5–40:19. Based on the entire record, we are not persuaded that it would have been obvious to a person of ordinary skill in the art that the debit network may be selected based on the time of day at which the payment is initiated in view of Easterly’s disparate teachings of merchant preferences and that the time for settlement of the transaction is taken into consideration for structuring a transaction.

In sum, based on the entire record, Petitioner has not shown by a preponderance of the evidence that the subject matter of dependent claims 5, 12, and 19 would have been obvious over the combination of Easterly and Luz. Therefore, based on the entire record, Petitioner has not established by a preponderance of the evidence that claims 5, 12, and 19 are unpatentable under 35 U.S.C. § 103(a) over Easterly and Luz.

III. CONCLUSION

For the foregoing reasons, and after having analyzed the entire record and assigning appropriate weight to the cited supporting evidence, Petitioner has established by a preponderance of the evidence that claims 1–4, 6–11, 13–18, 20, and 21 of the '785 Patent are unpatentable, but has not established by a preponderance of the evidence that claims 5, 12, and 19 are unpatentable.⁸

In summary:

Claims	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1–21	103(a)	Easterly and Luz	1–4, 6–11, 13–18, 20, 21	5, 12, 19
Overall Outcome			1–4, 6–11, 13–18, 20, 21	5, 12, 19

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, Petitioner has established by a preponderance of the evidence that claims 1–4, 6–11, 13–18, 20, and 21 of the '785 Patent are unpatentable;

⁸ Should Patent Owner pursue amendment of the challenged claims in a reissue or reexamination proceeding, we direct Patent Owner's attention to the April 2019 Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding. *See* 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner files a reissue application or a request for reexamination, Patent Owner is reminded of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. §§ 42.8(a)(3), (b)(2).

FURTHER ORDERED that, Petitioner has not established by a preponderance of the evidence that claims 5, 12, and 19 of the '785 Patent are unpatentable; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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Patent 9,189,785 B2

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