

Petition for *Inter Partes* Review of U.S. Patent No. 10,825,007

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS, CO. LTD.,
Petitioner

v.

BLAZE MOBILE, INC., and
MICHELLE FISHER,
Patent Owners

U.S. PATENT NO. 10,825,007

Case IPR2021-TBD

**PETITION FOR *INTER PARTES* REVIEW
UNDER 35 U.S.C. § 312 AND 37 C.F.R. § 42.104**

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LIST OF EXHIBITS

Exhibit No.	Description
1001	U.S. Patent No. 10,825,007
1002	File History of U.S. Patent No. 10,825,007
1003	Declaration of Dr. Sandeep Chatterjee for <i>Inter Partes</i> Review of U.S. Patent No. 10,825,007
1004	<i>Curriculum Vitae</i> of Dr. Sandeep Chatterjee
1005	U.S. Application Publication No. 2003/0149662 (“Shore I”)
1006	U.S. Application Publication No. 2007/0150601 (“Angelica”)
1007	U.S. Application Publication No. 2007/0266130 (“Mazur”)
1008	PCT Publication No. WO 2007/129081 (“Knight”)
1009	J. Jonker, “M-Commerce and M-Payment,” <i>Bedrijfskunde En Informatica</i> , Apr. 15, 2003 (“Jonker”)
1010	D. McKitterick and J. Dowling, “State of the Art Review of Mobile Payment Technology,” Trinity College Dublin, July 2003 (“McKitterick”)
1011	File History of U.S. Patent No. 10,699,259
1012	’007 Patent Claim Listing
1013	A. Herzberg, “Payments and Banking with Mobile Personal Devices,” <i>Communication of the ACM</i> , Vol. 46, No. 5, 53 (May 2003) (“Herzberg”)
1014	U.S. Application Publication No. 2002/0059100 (“Shore-II”)
1015	Sony-Ericsson P800 User Guide, dated 2002
1016	Sony-Ericsson P910 User Guide, dated 2003
1017	PalmOne Treo 600 User Manual, dated 2004

Samsung Electronics, Co. Ltd. (“Samsung” or “Petitioner”) requests *inter partes* review (“IPR”) of claims 1-11, 14-15, and 18-36 (“the Challenged Claims”) of U.S. Patent No. 10,825,007 (the “’007 Patent”) (Ex. 1001).

I. INTRODUCTION

Online payment transactions for purchasing products, services, or tickets using mobile devices (such as a cell-phone or a Personal Digital Assistant (PDA)) have been around since the early 2000s. Indeed, the ’007 Patent acknowledges that mobile devices have previously been used to conduct such online payment transactions, but the Patentee nevertheless claims to have invented a transaction scheme that includes a mobile device used by a purchaser, a point of sale device (such as a merchant terminal), a remote management server that manages the transaction, and a transaction server that provides a transaction verification from a financial entity (*e.g.*, a bank). Yet these components—which are integral parts of any online payment system—were well-known to a person of ordinary skill in the art (“POSITA”) long before the time of the alleged invention in November 2007. And although the Patentee contends that the purported novelty of the claims is that the mobile devices use a “non-browser based application” to conduct the online payment transactions, that is insufficient to distinguish the ’007 Patent from the prior art. Indeed, as discussed herein, by 2007, “non-browser based” applications were well-known and were used to conduct online payment transactions on mobile

devices. The Challenged Claims thus would at least have been obvious by the time of the '007 Patent and should therefore be cancelled.

II. MANDATORY NOTICES

A. Real Party-In-Interest

Samsung identifies the following real parties-in-interest: Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc.

B. Related Matters

On April 25, 2021, Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. filed a complaint in the Northern District of California for declaratory judgment of non-infringement against Patent Owners Blaze Mobile Inc. and Michelle Fisher. *Samsung Elecs. Co. v. Blaze Mobile Inc.*, Case No. 21-cv-02989-EJD (N.D. Cal.) (“DJ Action”). Among other patents, the complaint seeks a judgement of non-infringement of the '007 Patent and U.S. Patent No. 10,699,259 (the “’259 Patent”), which is related to the '007 Patent. Further, concurrently with this Petition, Petitioner has filed an IPR petition challenging claims of the '259 Patent. The above matters may affect, or may be affected by, decisions in this proceeding.

C. Counsel and Service Information

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Samsung concurrently submits a Power of Attorney pursuant to 37 C.F.R. § 42.10(b) and consents to electronic service directed to the following email address: Samsung_Blaze_IPR@kirkland.com.

III. PAYMENT OF FEES UNDER 37 C.F.R. § 42.103

The undersigned authorizes the Office to charge the fee set forth in 37 C.F.R. § 42.15(a)(1) for this Petition, and any additional fees, to Deposit Account No. 506092.

IV. CERTIFICATION OF GROUNDS FOR STANDING

Samsung certifies pursuant to Rule 42.104(a) that the '007 Patent is available for IPR and that Samsung is not barred or estopped from requesting an IPR of the Challenged Claims on the grounds identified in this Petition.

V. OVERVIEW OF CHALLENGE AND RELIEF REQUESTED

Samsung challenges the patentability of the Challenged Claims of the '007 Patent and requests that they be canceled.

A. Prior Art Patents and Printed Publications

Petitioner's challenge is based on the following prior art references:

- **Shore-I** (Ex. 1005, "Shore-I") – U.S. Application Publication No. 2003/0149662 to Shore, filed on February 9, 2001 (PCT), and published on August 7, 2003. Shore-I is prior art under at least 35 U.S.C. § 102(b).¹
- **Angelica** (Ex. 1006, "Angelica") – U.S. Application Publication No. 2007/0150601 to Angelica, filed on December 27, 2005, and published on June 28, 2007. Angelica is prior art under at least 35 U.S.C. § 102(a) and/or 102(e).
- **Mazur** (Ex. 1007, "Mazur") – U.S. Application Publication No. 2007/0266130 to Mazur *et. al*, filed on May 12, 2006 and published on

¹ For purposes of this Petition only Petitioner uses November 30, 2007, the date the application to which the '007 Patent claims priority was filed, as the priority date of the '007 Patent. Because this priority date is before March 16, 2013, the pre-AIA version of § 102 applies. All citations to the applicable statutes in this petition refer to the pre-AIA version.

November 15, 2007. Mazur is prior art under at least 35 U.S.C. § 102(a) and/or 102(e).

- **Knight** (Ex. 1008, “Knight”) – PCT Publication No. WO 2007/129081 to Knight *et. al*, filed on May 8, 2007 and published on November 15, 2007. Knight is prior art under at least 35 U.S.C. § 102(a) and/or 102(e).
- **Shore-II** (Ex. 1014, “Shore-II”) - U.S. Application Publication No. 2002/0059100 to Shore, filed on September 21, 2001, and published on May 16, 2002. Shore-II is prior art under at least 35 U.S.C. § 102(b).

The publication and effective filing dates of Shore-I, Angelica, Mazur, Knight, and Shore-II predate the effective filing date of the '007 Patent, which claims priority to an application filed on November 30, 2007.²

B. Relief Requested

Samsung requests cancellation of the Challenged Claims as unpatentable under 35 U.S.C. § 103. The specific grounds of the challenge are set forth below, and are supported by the accompanying declaration of Dr. Chatterjee (Ex. 1003).

² Petitioner reserves the right to challenge this or any other alleged priority date.

Ground	Claims	Proposed Statutory Rejection
I	1-10, 14, 18-19, 23-26, 30-32, 35	Obvious under § 103 in view of Shore <u>Alternative:</u> Obvious under § 103 in view of Shore-I in combination with Angelica
II	22, 29	Obvious under § 103 in view of Shore-I in combination with Angelica
III	11, 15	Obvious under § 103 in view of Shore-I in combination with Angelica and Mazur
IV	20, 27	Obvious under § 103 in view of Shore-I in combination with Angelica and Knight
V	21, 28, 33, 34, 36	Obvious under § 103 in view of Shore-I in combination with Angelica and Shore-II

VI. OVERVIEW OF THE TECHNOLOGY

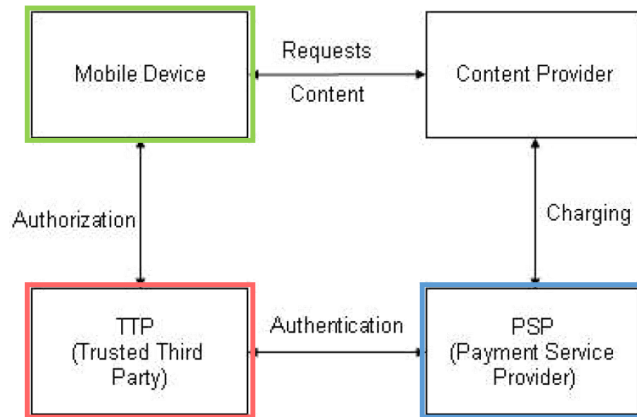
Dr. Chatterjee provides an overview of the background technology in his Declaration. The '007 Patent is generally directed to a mobile payment system for conducting online payment transactions (*e.g.*, purchasing products, services, or tickets) using a mobile device (*e.g.*, a cell-phone or a PDA) and an application installed on the mobile device. Ex. 1003 ¶ 44; Ex. 1001, 1:41-2:4.

As Dr. Chatterjee explains, and the '007 Patent acknowledges, mobile communication devices such as cell-phones and PDAs were used to conduct payment transactions for purchasing goods or services by at least the early 2000's, years before the '007 Patent. Ex. 1003 ¶ 45; Ex. 1001, 1:25-37. Such transactions, often referred to as Mobile Payments (or M-Payments), could be used for purchasing

physical products, digital products (*e.g.*, digital music or video), services, and tickets (*e.g.*, flight, parking, or concert tickets). Ex. 1003 ¶ 45; Ex. 1009, 7; Ex. 1010, 10-12.

A Mobile Payment transaction can be conducted in several ways at different locations. For example, a consumer using a mobile device can pay for physical goods or services at a point-of-sale (“POS”), such as paying for a product at the cash register or paying for a taxi service in real time. Ex. 1003 ¶ 46; Ex. 1010, 10-14, 19. A user can also use a mobile device to pay for a product, service, or ticket remotely (*e.g.*, over the internet), using a network connection. *Id.* A mobile device can use different communication means to interact with the POS, such as wired or wireless network (*e.g.*, WiFi) or short-range communication protocols, such as Bluetooth or Infrared. Ex. 1003 ¶ 46; Ex. 1009, 9-10; Ex. 1010, 10-19.

As illustrated in Figure 2 of McKitterick (Ex. 1010), a typical Mobile Payment system consists of: (1) a mobile device used by a consumer to pay for physical or digital goods or services (annotated in green); (2) a content provider or merchant that provides goods or services through a POS or online store; (3) a payment service provider (PSP) that manages the transaction (annotated in blue); and (4) a trusted third-party, such as a financial institution or a bank, that provides financial authorization for the transaction (annotated in red). Ex. 1003 ¶ 47; Ex. 1010, 10-11, Fig. 2.



The mobile device may also use certain software applications—often referred to as “mobile wallets”—to conduct a payment transaction and store a digital artifact that provides proof of purchase, such as a ticket or a digital receipt. Ex. 1003 ¶ 48. Ex. 1001, 2:33-49; 3:29-33; Ex. 1009, 7; Ex. 1010, 19-21. For example, mobile devices can use internet browsers to interact with a merchant’s website. Alternatively, mobile devices can use other interface software that is not browser-based to interact directly with a POS or online store. Ex. 1003 ¶ 49.

VII. OVERVIEW OF THE '007 PATENT

The '007 Patent issued on November 3, 2020, from U.S. Application No. 14/253,648 (filed on April 15, 2014) and is a continuation of U.S. Application No. 13/736,056 (filed on January 7, 2013), which is a continuation of U.S. Application No. 11/948,903 (filed on November 30, 2007, now U.S. Patent No. 8,352,323). Samsung uses November 30, 2007 as the priority date of the '007 Patent for purposes of this Petition.

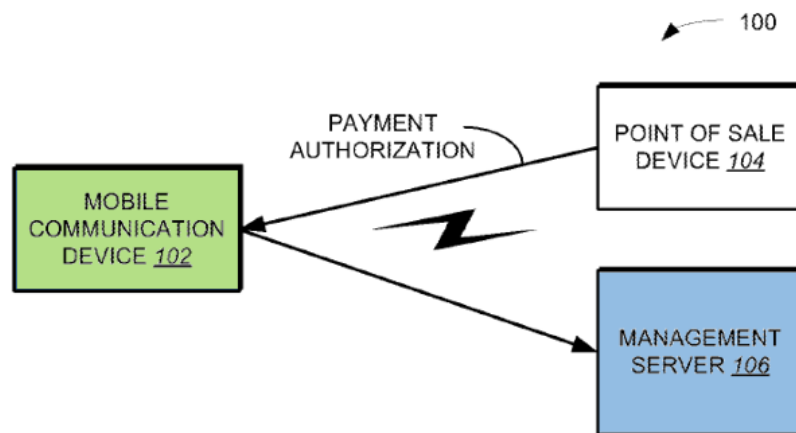
A. The Claims

The '007 Patent has 36 claims, including three independent claims (claims 1, 2, and 3). Claims 1-11, 14-15, and 18-36 are the Challenged Claims.

B. Summary of the Specification

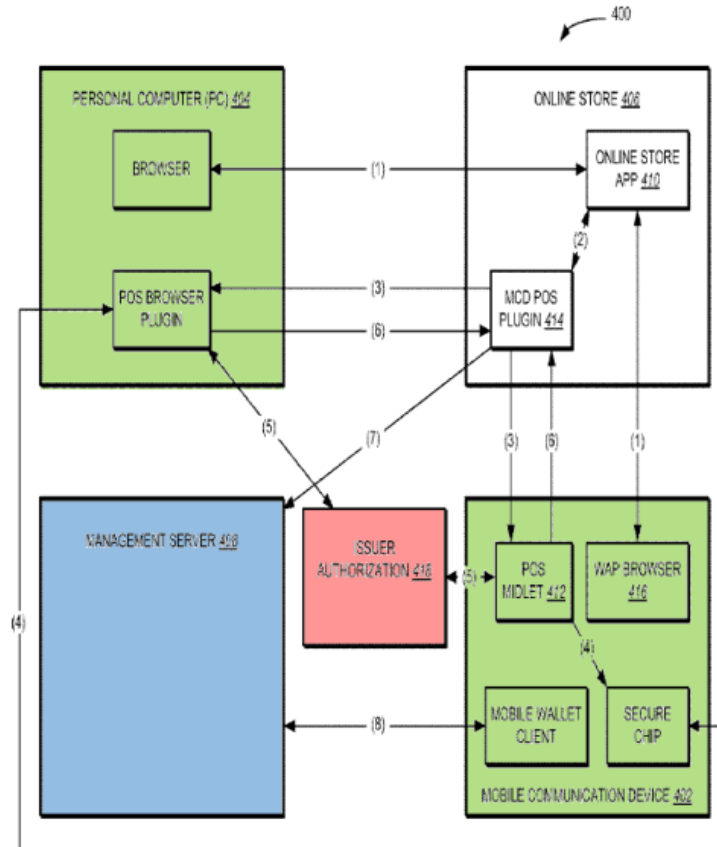
The '007 Patent is directed to a “method and system for receiving digital artifacts from a management server.” Ex. 1001, Abstract. According to the patent, “[m]obile communication devices—*e.g.*, cellular phones, personal digital assistants, and the like—are increasingly being used to conduct payment transactions,” such as “purchasing goods and/or services, bill payments, and transferring funds between bank accounts.” *Id.* 1:25-37.

As illustrated in Figure 1 below, the '007 Patent purports to provide an online payment system that includes “a hand-held, wireless mobile communication device 102” (annotated in green), “a point-of-sale device 104” and “a management server 106” (annotated in blue). *Id.* 2:33-40; Fig. 1.



According to the '007 Patent, the mobile communication device may include a “mobile application” (shown in Fig. 2), such as a “Mobile Wallet application,” configured to communicate with the “remote management server.” *Id.* 3:8-28, 3:13-15.

As illustrated in Figure 4, using a mobile device, a user “browses an online store website (online store application 410) and finds an item that the customer wishes to purchase.” *Id.* 5:56-65. The mobile device then sends “transaction information for authorization” to the point-of-sale device. *Id.* 6:11-15. And the mobile device also sends a “formatted authorization request” to a “payment entity (*e.g.*, issuer authorization 418)” (*id.* 6:34-37, annotated in red in Figure 4 below), which “either approves or disapproves a payment transaction,” and “can be, *e.g.*, a person, computer system, bank (or other third party).” *Id.* 2:60-65. After the payment entity authorizes the transaction, the point-of-sale device “forwards the purchase transaction information to the management server 408 for later customer viewing.” *Id.* 6:37-43.



C. Summary of the Prosecution History

The '007 Patent issued from U.S. App. No. 14/253,648, filed April 15, 2014. The Examiner issued office actions on September 2, 2014; January 12, 2015; August 28, 2015; November 17, 2015; July 13, 2016; June 21, 2017; December 11, 2017; and February 23, 2018, each of which rejecting the claims as nonpatentable under 35 U.S.C. § 101, for lack of written description under § 112, and for being invalid under §§ 102 and 103 over the prior art. Ex. 1002, at 1315, 1220, 1088, 1006, 785, 566, 476, and 345. After receiving a final rejection, the Applicant filed a Notice of Appeal with the PTAB on June 22, 2018. *Id.*, 248. On May 13, 2020, the PTAB issued a decision reversing the Examiner rejections and finding the cited prior art

did not render obvious the “non-browser based application” limitation of the claims. *Id.*, at 144. The claims were allowed on July 22, 2020. *Id.*, at 100.

D. Level of Ordinary Skill in the Art

As explained by Dr. Chatterjee, a POSITA at the time of the alleged invention would have had a B.S. in Computer Engineering or a related field, and two or more years of industry or research experience in data communications, wireless devices, and/or mobile payment systems. Ex. 1003, ¶¶ 34-37. Additional relevant education may compensate for less experience, and vice-versa. *Id.*

VIII. CLAIM CONSTRUCTION

“[W]ords of a claim ‘are generally given their ordinary and customary meaning,’” which is “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, *i.e.*, as of the effective filing date of the patent application.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (*en banc*); *see* 37 C.F.R. §42.100(b).

During prosecution of the ’007 and ’259 Patents, the Applicant made several statements that inform the meaning of the terms “non-browser based application” and “the remote management server downloads the one or more products to the mobile device,” of independent claims 1-3. Although Petitioner does not propose that these terms should be construed in this proceeding, Petitioner discusses

Applicant's statements here and provides its claim-by-claim analysis in view of those statements in the file history. *Infra* Section X.

A. “Non-Browser Based Application”

During prosecution of the '007 Patent, Applicant attempted to distinguish the prior art cited by the Examiner by asserting that “the plain meaning of ‘non-browser based’ to one of ordinary skill in the art clearly means ‘*operable without a network connection or offline.*’” Ex. 1002, at 222.³ Applicant further stated that “[t]he Applicant’s Specification defines non-browser, as one example, as an application that is *operable offline or without a network connection,*” and pointed to an application incorporated by reference for support to such “offline mode.” *Id.*

Applicant also stated that it “respectively elects to serve[] as their own lexicographer of their Specification and define ‘browser based’ as ‘*an application that has a design, structure, or functionality similar to a web browser.*’” *Id.* 396. Based on that definition, Applicant asserted that “[t]hose skilled in the art know that a browser only operates when it is connected to a server.” *Id.*

Further, Applicant also distinguished the software program disclosed in U.S. Pat. App. Pub. No. 2005/0021478 (“Gautier”)—Apple iTunes—from the claimed “non-browser based application.” Applicant specifically cited the Wikipedia entry

³ All emphasis in this Petition is added unless indicated otherwise.

for “web browser” as “[e]vidence for the plain meaning of ‘Browser’ as would be understood by one of ordinary skill in the art,” and argued that Apple iTunes is “browser-based,” rather than non-browser based, because it purportedly “**has 77% or nearly 80% of the features of a browser,**” namely (1) back and forward buttons, (2) a home button, (3) use of URLs, (4) a search bar, (5) a status bar, (6) a “viewport,” (7) the ability to view HTML or similar markup languages, and (8) incremental find for searching within a page. *Id.*, 738-740; *see also id.*, 653-654, 697-699, 714-716, 738.

B. “The Remote Management Server Downloads The One Or More Products To The Mobile Device”

During prosecution, Applicant further attempted to distinguish Gautier by arguing that Gautier recites that media is downloaded from the “media storage server” (110) and not from the “commerce server,” which the Examiner identified as the “management server.” Ex. 1002, at 212-216. Applicant argued that because Gautier “[p]ositively recites against the media commerce server (Examiner alleges is ‘remote management server’) downloading the media,” and because it “[t]eaches a different and very specific method of down loading media,” it does not meet the claims of the ’007 patent. *Id.*

Petitioner submits that the Board does not need to construe any claim term to evaluate the prior art in this Petition. To the extent Applicant’s statements during prosecution impose requirements on the terms discussed above, however, those

requirements are met by the prior art and thus no particular interpretation of any claim term is required to find the claims obvious in view of the prior art. Ex. 1003 ¶ 61.

C. Indefiniteness

Certain claims of the '007 Patent may be indefinite for reciting both an apparatus and a method of using that apparatus because it is unclear whether those claims are infringed by creating the apparatus or when a user actually uses it. *IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005). Nonetheless, for purposes of this Petition, the Board is not required to address this issue because the prior art discussed in this Petition discloses all claimed components and functions recited in those claims. *See Samsung Elecs. Am., Inc. v. Prisia Eng'g Corp.*, 948 F. 3d 1342, 1355 (Fed. Cir. 2020) (indefiniteness under *IPXL* does not “preclude the Board from addressing the patentability of the claims on sections §102 and 103 grounds.”)

IX. OVERVIEW OF THE PRIMARY PRIOR ART

A. Overview of Shore-I

Like the '007 Patent, Shore-I is directed to an online payment system through a point-of-sale device using a portable electronic device. Ex. 1005, ¶ 0001; Abstract. Similar to the '007 Patent, Shore-I also seeks to improve online payments by using a mobile device “to wirelessly pay for purchases” and “communicate authorization transactions.” *Id.* ¶ 0008. Shore-I discloses a payment system that includes a mobile

device—such as a cell phone or PDA. *Id.* ¶ 0063. Shore-I further describes an embodiment that uses a “Directed Purpose” device, such as a “PayStick” that is similarly configured to conduct mobile payment transactions. *Id.* ¶ 0319, 327. Shore-I’s payment system also includes a credit/debit card point-of-purchase/sale (“POP” or “POS”) processing terminal to facilitate payment transactions. *Id.* ¶¶ 0063, 0085. Further, Shore-I discloses a “server system” that includes a “server host,” used to “control[] the processing of the transactions between the PDA and the POS” (*id.* ¶¶ 0065, 0101, 0135) and an “Automated Clearing House (ACH) server” that provides transaction authorization from financial institutions, such as a bank. *Id.* ¶¶ 0065, 0072, 0134-135, 0181.

Shore-I also discloses a software application, such as a “PDA Pay & eTicket/mewallet™ System Software,” that facilitates communications between the mobile device, POS, the server host, and the ACH server, and is configured to store data, such as electronic tickets. *Id.* ¶¶ 0106, 0115-116.

B. Overview of Angelica

Similar to Shore-I and the ’007 Patent, Angelica is directed to improving mobile payment systems through a “non-browser model for the processing of electronic transactions” that includes a mobile device that uses a “software program other than a conventional internet browser” to conduct online transactions. Ex. 1006, Abstract; ¶¶ 0009; 0050. Angelica teaches a mobile device with a “dedicated

piece of resident software” that allows a user to conduct transactions, such as “placing orders for items both tangible and intangible.” *Id.* ¶¶ 0009, 0013.

C. Overview of Mazur

Similar to Shore-I, Angelica and the '007 Patent, Mazur is directed to systems and methods for using a wireless device—such as a mobile phone or PDA—to locate and purchase content, goods and services. Ex. 1007, ¶ 0001. Mazur teaches that the mobile device uses a mobile client that stores the balance of the user’s account and synchronizes with the system server to keep both the mobile device and server in the same state. *Id.* ¶ 0053. Mazur explains that this permits the authorization of offline transactions, such as in an underground garage, where the system server is unavailable and cannot be contacted. *Id.* ¶ 0071.

D. Overview of Knight

Similar to Shore-I, Angelica, Mazur, and the '007 Patent, Knight is directed to a method of downloading and using digital content, such as digital music, by a portable wireless devices. Ex. 1008, 1:8-9. Knight teaches a software application running on a wireless device that enables a user to search and download digital music content from a remote server. *Id.* 4:6-16. Knight further teaches that when an error in downloading the media occurs, the application may generate an alert to the user and/or retry to download the file from the server. *Id.* 27:3-29:2.

E. Overview of Shore-II

Shore-II is directed to the same Immttec/mewallet mobile transaction system described in Shore-I. Ex. 1014 ¶ 0003. Shore-II describes a delivery of targeted coupons or advertisements to mobile devices, wherein “the coupons are specifically oriented towards each particular customer’s buying habits, preferences and needs.” *Id.* ¶ 0002.

X. SPECIFIC GROUNDS FOR PETITION

A. Ground I: Claims 1-10, 14, 18-19, 23-26, 30-32 And 35 Are Rendered Obvious by Shore-I; Alternative: Obvious in view of Shore-I in Combination with Angelica

As discussed below, Shore-I by itself, or alternatively Shore-I in combination with Angelica renders obvious claims 1-10, 14, 18-19, 23-26, 30-32 and 35 of the ’007 Patent. Exhibit 1012 is a claim listing that enumerates each claim element.

1. Independent Claim 1

a. Element 1[Pre]

To the extent that the preamble is limiting, Shore-I teaches it. Ex. 1003 ¶ 73. Shore-I teaches a method for processing a transaction, *e.g.*, “***methods to wirelessly pay for purchases . . .***” and for “***conducting point of sale transactions***” using electronic devices. Ex. 1005, Abstract, ¶ 0001.

b. Element 1.1

Shore-I renders obvious Element 1.1. Ex. 1003 ¶¶ 74-80. Shore-I teaches receiving at a transaction server (*e.g.*, clearinghouse system or ACH server) a payment method (*e.g.*, credit or debit card) that corresponds to an identification code

(e.g., user ID and/or PIN) associated with a user from a remote management server (e.g., Immtec server).

(1) A “Transaction Server”

Shore-I teaches a “transaction server,” e.g., “Automated Clearing House (ACH) server 720,” (or clearinghouse system) annotated in red in Figure 1a below.

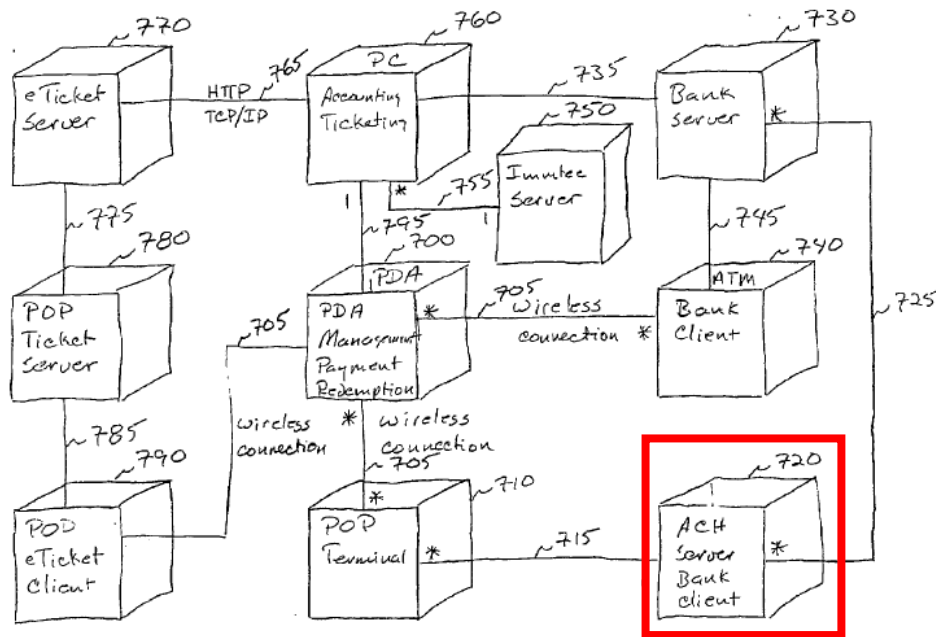


FIG. 1a Overview of the PDA Pay network

Shore-I teaches that the PDA system communicates with a “third party financial system such as a bank, credit card, debit card, or clearinghouse system.” Ex. 1005, ¶ 0180; see also ¶ 0065 (noting that the “Automated Clearing House (ACH) server 720,” is connected to the Immtec server 750); Fig. 1d.

(2) A “Payment Method” And “Identification Code”

Shore-I teaches that the transaction server (*e.g.*, clearinghouse system or ACH server) receives a payment method, such as a credit or debit card. For example, Shore-I teaches that the “present invention” provides for “making service and/or sale service charge payments for *credit card* charges [and] *debit card* charges.” Ex. 1005, Abstract, ¶ 0009. Shore-I also teaches that the “clearinghouse system” is responsible for “distribut[ing] *credits* and *debits* . . . to the appropriate bank, credit card company, or other financial institution.” *Id.* ¶ 0181. The transaction server (*e.g.*, ACH server) processes the transaction using a payment method and provides verification of the transaction to the remote management server. *Id.* ¶ 0198; Fig. 12d.

Shore-I further teaches that the payment method corresponds to an identification code associated with a user. For example, a user inputs “security information,” including a “user ID” and “PIN” on the wireless PDA to complete a transaction. *Id.* Fig. 12b (annotated):

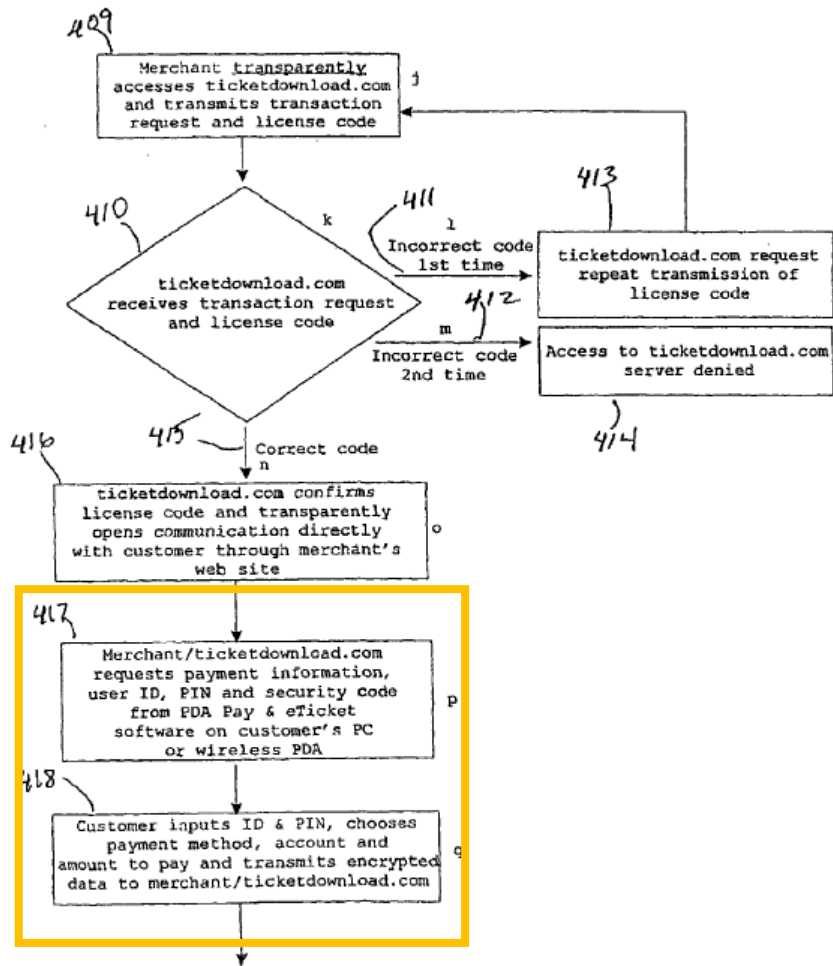


FIG. 12b

Upon inputting the user ID and PIN, the Customer “choose payment method, (*check, credit card or debit card*) and amount to pay” in order to complete a transaction. *Id.* ¶ 0192; Fig. 12b; *see also Id.* ¶ 0405 (a “user would be required to present identification 1706,” such as a PIN 1711 into the Directed Purpose device, *e.g.*, PayStick.) Shore-I further teaches that the “Server System software” that runs on the server that interfaces with the mobile device includes a database that stores

the user's identification codes, user ID, and other security data, as well as the user's payment method, such as credit card and bank account data. *Id.* ¶ 0333. A POSITA would have understood that the payment method of the user corresponds to the identification code associated with the user, because each user would have their own payment method associated with their account data, which is also stored by the server system software. Ex. 1003 ¶ 79; Ex. 1005 ¶ 0192.

(3) A “Remote Management Server”

Shore-I teaches a “remote management server” called “Immtec” (or “Immtec Server Host”) that is a “host server system” that encompasses a “server computer or set of server computers.” Ex. 1005 ¶¶ 0065, 0101; Fig. 1a. The Immtec server “provide[s] the interface for the payment system aspect of the invention (referred to herein as the ‘PDA Pay system’) and the authorization transaction interface system (referred to herein as ‘ticketdownload.com’ and/or as the ‘ticketdownload.com system’ and/or as the ‘eTicket System’).” *Id.* ¶ 0101. Shore-I teaches that “[t]he systems administrator of both of these systems is referred to herein as ‘Immtec’.” *Id.* Immtec includes, for example, the Immtec server 750 (shown in Fig. 1) that communicates with the mobile device (*e.g.*, PDA 700). *Id.* ¶ 0068, Figs. 1a-1b. The Immtec server generates and distributes eTickets, including to the PDA 700. *Id.* ¶¶ 0075, 0159, 0182; Fig. 1f. The Immtec server also authenticates each transaction by validating certain authentication information, such as a user PIN, ID, or biometric

information (*e.g.*, fingerprint). *Id.* ¶¶ 0262-0263. Shore-I also teaches that, after setting up a new mobile device within the PDA Pay system, the user must “synchronize the PDA/wireless phone with the Immtec Server System” to ensure “full functionality in the System software.” *Id.* ¶¶ 0265-0272.

Shore-I further teaches that the Immtec Server System sends to the clearinghouse system or ACH server a payment method (*e.g.*, credit or debit card) that corresponds to an identification code associated with a user (*e.g.*, user ID and PIN). *See, e.g., Id.* Fig. 12b (showing that a payment method and user identification code are sent to ticketdownload.com); ¶ 0191-192 (describing same); ¶ 0101 (describing that Immtec interfaces with and administer the ticketdownload.com system); ¶ 0065 (noting that the ACH server is connected to the Immtec server); Fig. 1d.

c. Element 1.2a

Shore-I renders obvious Element 1.2a. Ex. 1003, ¶¶ 81-85. Shore-I teaches that prior to receiving the payment method that corresponds to the user identification code, the remote management server (*e.g.*, Immtec) sends a list of products (*e.g.*, eTickets) to a non-browser based application with a graphical user interface (*e.g.*, the PDA Pay and eTicket/mewallet application) that is downloaded and installed on a mobile device, such as PDA 700 (shown in green) or a Directed Purpose device, *e.g.*, PayStick. Ex. 1005, Fig. 1a (annotated):

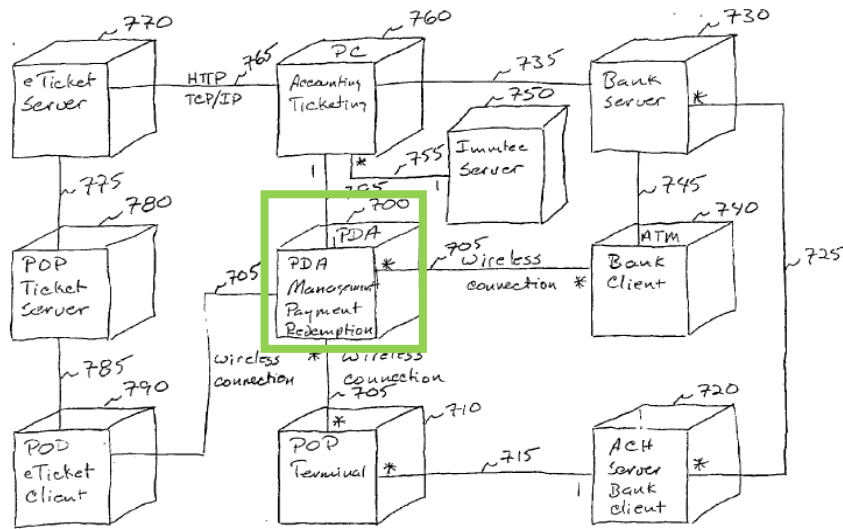


FIG. 1a Overview of the PDA Pay network

For example, Shore-I teaches that Ticketdownload.com—which is the “authorization transaction interface system” responsible for distributing eTickets—“offer[s] the ability to download electronic tickets to a personal computer or a wireless-modem-equipped PDA.” *Id.* ¶¶ 0101, 0184-0185. Shore-I teaches that a user would “search an online merchant’s database for desired tickets” and the merchant would “*display available ticket(s) and prices* according to the customer’s request 401,” as shown in annotated Figure 12a:

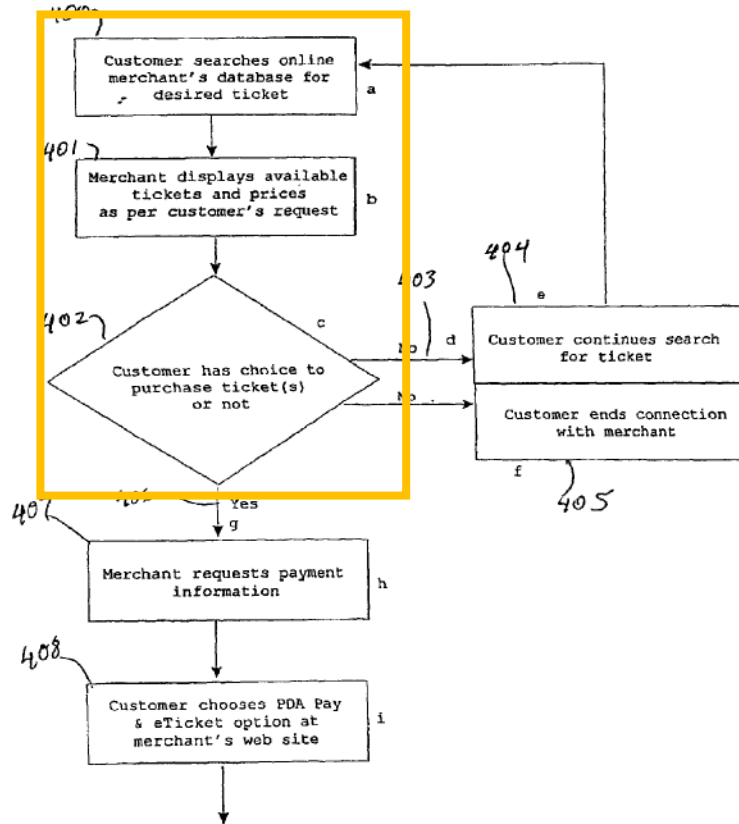


FIG. 12a

Id. Fig. 12a (annotated); *see also* ¶ 0186 (noting “a link for the Merchant’s customers to the PDA Pay & eTicket/mewallet™ System to download eTickets” is provided); Fig. 13a (noting “PDA Pay & eTicket System displays all active accounts . . . [and] requests user choose eTicket(s) to redeem & lists tickets”). A POSITA would have understood that the list of eTickets available for purchase is sent from the management server (*e.g.*, Immtec server) because Shore-I teaches that the Immtec server interfaces with the ticketdownload.com system and serves as the “system administrator” of that system. *Id.* ¶ 0101; Ex. 1003 ¶ 83. Shore-I also explains that

the ticketdownload.com software would “work transparently to the user/ticket purchaser when utilized by a licensed merchant,” such that it would have been obvious to a POSITA that the Immttec server host, that is the administrator of ticketdownload.com sends the list of eTickets to the user. Ex. 1005 ¶ 0185, Figs. 12a-d; Ex. 1003 ¶ 83.

Further, Shore-I teaches that a list of eTicket options is sent from the management server (*e.g.*, Immttec) to the PayStick, which is an example of a mobile device configured with the PDA Pay application and capable of performing payment transactions without Internet. The PayStick is configured to “receive and transmit, among other things, electronic tickets,” and the “tickets available and type of tickets available would be displayed on the LCD screen” of the PayStick. Ex. 1005 ¶¶ 0372, 0396. Shore-I further teaches that the “Server System” (*e.g.*, Immttec) would “receive requests from the merchant’s point of purchase device, such as for an amount of money, [and] for a particular eTicket [...] and would then communicate instructions to fulfill the request, according to System protocols, to the Directed Purpose System device via the merchant’s point of purchase interface.” *Id.* ¶ 0376. Thus, a POSITA would have understood that the System Server (*e.g.*, Immttec Server) would send the list of eTickets to the PayStick through the POS interface. Ex. 1003 ¶ 83; *see also* Ex. 1005, ¶ 0377-379 (teaching that the user presses a button on the PayStick to “receive the Server System’s instructions,” the PayStick will

“receive and execute the Server System’s instructions” and will permit the user to “make selections of options that appear on the LCD of the device to fulfill the requested transaction.”)

Moreover, Shore-I teaches that the steps described above in connection with the PayStick could be performed in the same way on the PDA mobile device. *Id.* ¶ 341 (“[i]t will be understood by someone with ordinary skill in the art that the options described [in connection with the PayStick] would apply equally to a System-enabled PDA/wireless phone device without departing from the spirit of the invention.”).

(1) A “Non-Browser Based Application”

Shore-I teaches a “non-browser based application.” For example, Shore-I teaches a “PDA Pay and eTicket/mewallet” software application (“PDA Pay application”) “for storing many types of data[,] including for example, electronic tickets (“eTickets”)[,] banking information[,], credit card information[,], and medical information.” Ex. 1005, ¶ 0115-116. Shore-I explains that the PDA Pay and eTicket/mewallet application is preinstalled or downloaded and installed on memory included in a mobile device. *Id.* ¶ 117 (the PDA Pay and eTicket/mewallet application “would be installed in the customer’s PDA” and can be “pre-installed” on a user’s PDA, or may be installed by the user from their personal computer).

Shore-I further teaches that the PDA Pay and eTicket/mewallet software application includes a graphical user interface to permit the user to interact with the PDA Pay and eTicket software and purchase eTickets. *Id.* Fig. 12a (noting “Merchant *displays* available tickets and prices as per customer’s request” and “Customer has *choice* to purchase ticket(s) or not”); Fig. 13a (noting “User *chooses* PDA Pay & eTicket software,” “User *inputs* ID & PIN,” “PDA Pay & eTicket System *displays* all active accounts,” and “User *chooses* eTicket icon”); *see also* ¶ 0449 (“FIG. 28 is a graphic representation of an exemplary main menu *user interface screen* that would be provided on the Directed Purpose System device website interface by an exemplary embodiment of the invention”); Fig. 28.

A POSITA would have understood that the PDA Pay application of Shore-I is a “non-browser based application” that only generates a non-browser based application generated screen (*e.g.*, it does not use HTTP protocol). Ex. 1003 ¶ 89. As Dr. Chatterjee explains, Shore-I describes that the PDA Pay application can be configured to operate in different modes of communication, such as communicating with a merchant’s website over the Internet in one mode, and communicating with a POS over short-range communication interfaces (*e.g.*, infrared or Bluetooth) without Internet connection and the use of a browser. Ex. 1005 ¶¶ 0114, 0141, 0146, 0163; *see also* Fig. 20a, ¶¶ 0452-0453; Ex. 1003 ¶ 89. A POSITA would have understood that the PDA Pay application is a non-browser based application because Shore-I

teaches that it can run on the PayStick device that uses only short-range communication means (such as infrared) to communicate with a POS, and therefore the PDA Pay application does not connect to the internet and does not use internet browsers. Ex. 1005, ¶¶ 0319, 0341; Fig. 20a; Ex. 1003, ¶ 89.

Further, to the extent the Board believes Patent Owner limited the term “non-browser based application” during prosecution, as discussed above in section VIII, Shore-I teaches these qualifications and renders this limitation obvious. First, Shore-I teaches that the PDA Pay and eTicket/mewallet application is “*operable offline or without a network connection.*” Ex. 1002, 222. For example, the PDA with the PDA Pay and eTicket/mewallet application can be used to redeem tickets in an offline mode without internet connection. *Compare* Ex. 1005, ¶ 0203 (describing redemption of eTickets using short-range infrared interface at an entrance to an event that does not require use of a network connection) *with* Ex. 1011, 82 (Patent Owners described redeeming tickets at a theatre with no network access noting “the client (in OFFLINE mode) will be able to redeem the eTicket and update the state of the eTicket on the mobile communication device (*e.g.*, change status from ‘valid’ to ‘redeemed.’”).

Further, Shore-I teaches that the PayStick is capable of performing the eTicket purchasing steps described in the flowcharts of Figures 12a-d using the same PDA Pay and eTicket/mewallet application that is used on the PDA. Ex. 1005, ¶¶ 0341,

0351, Figs. 12a-d. Shore-I further teaches that the PayStick—in contrast to a PDA or cellphone—does not include means to interface with a merchant website using an internet browser, and only uses short-range infrared interface for communication with a POS. *Id.* Fig. 20a (demonstrating that the only interface of the Directed Purpose device is a short-range IR interface), *see also* ¶ 0319 (noting that the Directed Purpose device does not provide “mobile telephone communications” and lacks functionality of a mobile telephone); Ex. 1003, ¶ 91. Shore-I further teaches that a user is able to purchase eTickets at a POS using short-range communication (*i.e.*, offline) by “mak[ing] selections of options that appear on the LCD” 1109 of the PayStick, and then interface with a merchant’s POS device to complete the transaction. Ex. 1005, ¶¶ 0378-0379, Fig. 19a. A POSITA would have therefore recognized that Shore-I contemplates the use of non-browser based applications that could be used, for example, in devices that use short-range data transmission (such as infrared and Bluetooth), including ATMs and credit-card terminals, that do not require an internet connection or use an internet browser, as described in Shore-I. *Id.* ¶ 0105, 0335; *see also id.* ¶ 0163 (referring to such instances as “*offline* transactions”); Ex. 1003 ¶¶ 92-93.

Second, the PDA Pay and eTicket/mewallet application is not “an application that has a design, structure, or functionality similar to a web browser,” as Patent Owners defined a “browser-based” application during prosecution. Ex. 1002, 396.

To the contrary, a POSITA would have understood that Shore-I’s applications are *non*-browser based applications because they lack the features identified by Patent Owner during prosecution as hallmarks of a browser. Ex. 1003, ¶ 94. For example, the PayStick includes only a “2 line, multi-character, LCD display” with a “small ... LCD screen” that displays limited transaction information to the user and does not include forward or back buttons, a search bar, a status bar, or the ability to view HTML languages. Instead, the PayStick’s buttons are limited to “input keys” used to “input the User’s User ID and PIN” and to “select prompts presented on the LCD display.” Ex. 1005, ¶¶ 0324, 0376-0379. Shore-I therefore does not describe a structure or functionality that would enable a user to surf the web, browse websites, or the like. Ex. 1003 ¶ 94. Similarly, other embodiments implementing Shore-I’s “Directed Purpose” device—such as those storing currency or acting as a repository for medical or personal information—do not describe browser-like features. Ex. 1005, ¶¶ 389-390 (describing that the device only displays total amount of currency available and requests user to press “send” to “approve[] the total amount to be paid to the merchant”); Ex. 1003, ¶ 94. A POSITA would have therefore recognized that the mobile device described in Shore-I supports non-browser based applications that do not have a design, structure, or functionality similar to a web browser. *Id.*

- (2) *Alternative: Shore-I in combination with Angelica Teaches A “Non-Browser Based Application”*

To the extent Patent Owners contend that Shore-I by itself does not render obvious the “non-browser based application” and/or “non-browser based application generated screen” limitations, Shore-I in combination with Angelica renders them obvious. Ex. 1003 ¶¶ 95-98.

Specifically, like Shore-I, Angelica discloses methods and systems for conducting online transactions, such as “placing orders for items both tangible and intangible,” using a mobile device that includes a dedicated software. Ex. 1006, Abstract, ¶¶ 0009, 0012-13; 0050. Angelica expressly discloses that the software program is a non-browser based program. *Id.* at Abstract (“a software program ***other than a conventional internet browser*** or conventional email client to connect with the user [that] has the capability of storing information about the user of the system for use in authorizing future transactions...”), ¶ 0009 (“a broader ***non-browser model*** for the processing of electronic transactions has the greater future potential as a way of doing business”), ¶ 0030 (“by entering the ***non-browser*** realm the server application can send the application whatever custom headers and raw data it may choose...”), ¶ 0033 (“[a]s a further example of the ***advantage over a conventional internet browser*** of adopting a custom application for the method of this invention...”). Figure 5 of Angelica depicts a non-browser based application generated screen of a “home shopping channel” application:



Further, to the extent the Board believes the Applicant limited the scope of the term “non-browser based application” during prosecution (as discussed above in section VIII), Angelica’s non-browser based application satisfies the various qualifications the Applicant placed on that term during prosecution. First, Angelica teaches that the non-browser application is “*operable offline or without a network connection.*” Ex. 1002, 222. For example, the software program can be used to purchase products online, including digital media content (*e.g.*, audio and video files or downloadable software programs) that will be stored in the mobile device memory for later use, such that the media could be accessed even when the device is offline). Ex. 1006, ¶¶ 0023, 0049; Ex. 1003 ¶ 97.

Second, Angelica’s non-browser application is not “an application that has a design, structure, or functionality similar to a web browser,” as applicant defined a

“browser-based” application during prosecution. Ex. 1002, 399. To the contrary, Angelica explicitly distinguishes its application from browser-based applications that according to Angelica are disfavored. Ex. 1006, Abstract, ¶¶ 0009, 0030, 0033. And the example user interface in Figure 5 of Angelica lacks the features identified by Patent Owner during prosecution as hallmarks of a browser, such as back, forward, reload, stop, or home buttons, search or status bars, or an incremental find option. *Compare* Ex. 1006, Fig. 5 *with* Ex. 1002, 653-654.

(3) Motivation to Combine Shore-I and Angelica

A POSITA would have been motivated to combine the teachings of Shore-I with the teachings of Angelica, as explained below and in Dr. Chatterjee’s Declaration. Ex. 1003 ¶¶ 99-108. The combination would have involved routine implementation in software only, would have posed no technical risks given the related and complementary teachings of the references, and would have successfully achieved the predictable benefits of providing an improved system for online mobile payments. *Id.*

Shore-I and Angelica relate to the same field—*i.e.*, methods for conducting electronic transactions using the same type of mobile devices—and seek to address the same problem: improving the way mobile devices are used to conduct mobile payments and purchasing of goods online. Ex. 1005, Abstract; Ex. 1006, ¶¶ 0009; 0050. A POSITA would have been motivated to improve Shore-I’s online payment

system by incorporating Angelica’s specific teaching of non-browser based application software installed on a mobile device—to the extent that concept is not already taught by Shore-I—because such an application operates better in the offline environments described in Shore-I (*e.g.*, when the mobile device is used at a point-of-sale without internet connection.) Ex. 1006, ¶ 0009; *see also* ¶ 0030 (discussing improved functionality, such as how a non-browser based application can be sent “whatever custom headers and raw data it may choose, formatted any way it likes for its own purposes”). A POSITA would have viewed the addition of Angelica’s specific teaching of a non-browser application to the system described by Shore-I as the application of a well-known concept (*e.g.*, “a broader non-browser model for the processing of electronic transactions,” *see* Ex. 1006, ¶ 0009) to a known system (*e.g.*, the “point of sale financial transaction” system described by Shore-I, *see* Ex. 1005, ¶ 0001) to yield predictable results (*e.g.*, improving the way mobile devices communicate with merchants’ terminals and servers). Ex. 1003 ¶ 102.

Specifically, Shore-I provides the technical details to implement the back end of an online payment system (*i.e.*, the communications between the mobile device and the remote management and transaction servers). Ex. 1005, Fig. 1a, ¶ 0061. Shore-I also teaches “interface software programs” that facilitate communications among system components, including the mobile device, as well as features that would “apply equally to all types of hardware and operating systems without

departing from the spirit of the invention.” *Id.* ¶¶ 0105-0107. Shore-I also teaches a “PDA Pay and eTicket/mewallet™ System PDA software” that “would be installed in the customer’s PDA.” *Id.* ¶ 0117. Because the use of applications on mobile devices to conduct online transactions was well-known, Shore-I did not specify the implementation details of such applications and instead disclosed that the system would be programmed to utilize “interface software” already present on the client and server computers. *Id.* ¶ 0114. In light of Shore-I’s teachings, a POSITA would have been motivated to look for ways to implement a non-browser based application on a mobile device used for online transactions. Ex. 1003 ¶ 103. A POSITA would have thus recognized that Shore-I contemplates the use of non-browser based applications that could be used, for example, in devices that use short-range data transmission (such as infrared and Bluetooth), including ATMs and credit-card terminals that do not require internet connection, and therefore do not require the use of an internet browser, as described in Shore-I. Ex. 1005, ¶ 0105, 0335; *see also id.* ¶ 0163 (referring to such instances as “offline transactions”).

Upon consulting Angelica, a POSITA would have recognized that it teaches exactly the type of non-browser based “interface software” described in Shore-I. Ex. 1006, ¶ 0009. In particular, Angelica discloses details of a non-browser based application installed on a mobile device (such as a cell phone) operable to conduct

online transactions such as purchasing digital and tangible goods. *Id.* ¶¶ 0013, 0049, 0137-0147, 0183-0201.

A POSITA would also have a reasonable expectation of success in arriving at the alleged invention recited in the Challenged Claims of the '007 Patent by combining the teachings of Shore-I and Angelica because consistent with the teaching of Shore-I that the mobile device includes “interface software” operable in offline transactions (Ex. 1005, ¶¶ 0105-0107, 0115-0118), Angelica teaches how to conduct online transactions by applying the non-browser app model to an online payment system (Ex. 1006, ¶¶ 0013, 0049), and such implementation would have involved a routine software implementation, as explained by Dr. Chatterjee. Ex. 1003 ¶ 108.

d. Element 1.2b

Shore-I alone or in combination with Angelica renders obvious Element 1.2b. Ex. 1003, ¶ 109. Shore-I teaches a non-browser based application (*e.g.*, “PDA Pay and eTicket/mewallet” software application) that only generates a non-browser based application generated screen that is corresponding to a specific screen or area of the non-browser based application. For example, as explained above (element 1.2a), Shore-I teaches that the PDA Pay and eTicket/mewallet software application includes a graphical user interface that permits the user to interact with the PDA Pay and eTicket software and purchase eTickets. Ex. 1005, Fig. 12a; Fig. 13a, Fig. 28,

¶ 0449. Shore-I further teaches that the PayStick includes a “2 line, multi-character, LCD display” with a “small ... LCD screen” that displays product related information to the user. *Id.* ¶¶ 0324, 0376-0379. A POSITA would have understood that the PDA Pay and eTicket/mewallet application of Shore-I, as implemented on the PayStick, only generates a non-browser based application generated screen that corresponds to a specific screen or area of the non-browser based application because the PayStick only supports a limited LCD display and does not support a web-browser. *Id.*; Ex. 1003 ¶ 109. Shore-I further teaches that the functionality described above could be implemented in the same way on the PDA mobile device. Ex. 1005, ¶ 341; *See also* element 1.2a above.

e. Element 1.2c

Shore-I renders obvious Element 1.2c. Ex. 1003, ¶¶ 110-111. Shore-I teaches that the mobile device (*e.g.*, PDA) includes a display (*e.g.*, “LCD (Liquid Crystal Display) Screen or other display device,”) a processor (*e.g.*, a “CPU (Central Processing Unit) or other computer device, including microprocessors, microcontrollers, and the like,”) and a wireless radio transceiver configured to support voice and data interactions through a first wireless communication channel (*e.g.*, the mobile device supports “CDMA, TDMA, GSM or any other digital protocol.”) Ex. 1005, ¶¶ 0008, 0061, 0080, 0082. Shore-I also teaches that the mobile device includes a Wi-Fi transceiver. For example, Shore-I discloses that the

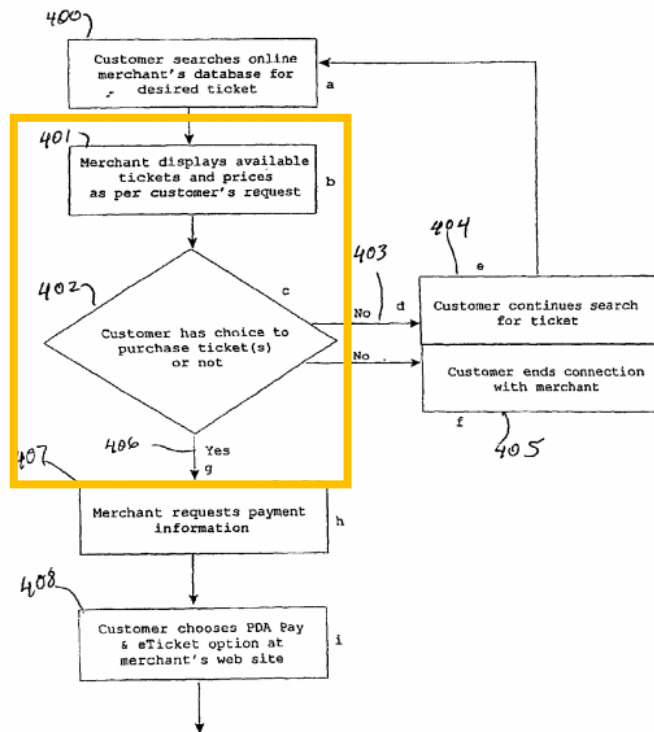
mobile device includes “Radio Frequency (RF)” interface and a “wireless interface 705.” *Id.* ¶¶ 0008, 0061; *see also* ¶ 0080 (the mobile device includes a “wireless modem 11b,” and “modem driver 11a.”).

*f. Element 1.3*⁴

Shore-I alone or in combination with Angelica renders obvious Element 1.3. Ex. 1003, ¶¶ 112-116. Shore-I teaches receiving, at the non-browser based application generated screen (*e.g.*, PDA Pay and eTicket/mewallet application screen), an identification of one or more products (*e.g.*, an eTicket) selected from a list of products (*e.g.*, available tickets and prices) from the non-browser based application generated screen (*e.g.*, PDA Pay and eTicket/mewallet application on a PDA or a PayStick device) through user input via the mobile device display.

⁴ This claim element is potentially indefinite because it is unclear whether the “remote management server” or the “non-browser based application generated screen” receives the identification of one or more products. Nonetheless, for purposes of this Petition, the Board is not required to address this issue because the prior art discussed in this Petition discloses that both the “remote management server” and the “non-browser based application generated screen” receive the identification of one or more products, as explained herein.

For example, Shore-I teaches that a user may choose to purchase eTickets from a list of tickets displayed to the user by the PDA Pay and eTicket System. Ex. 1005, ¶¶ 0185-0188. Ticketdownload.com would provide a list of products (*e.g.*, eTickets) to the customer. *Id.* ¶ 0185. As shown in annotated Figure 12a, a merchant displays to the user a list of available tickets and prices “per customer’s request” (step 401). *Id.* ¶ 0186, Fig. 12a. The customer then would be presented with a “choice to purchase the ticket(s),” as shown in step 402. *Id.* ¶ 0187. A customer would then identify a product (*e.g.*, ticket) for purchase from the list of products (*e.g.*, tickets) in step 406 (“Yes” indicates that the customer identified a requested ticket from a list of available tickets). *Id.* Fig. 12a; *see also* ¶ 0188 (“If the Customer chooses to purchase the ticket(s) 406, the Merchant’s site would prompt the Customer to input payment information 407.”).



Further, Shore-I teaches that the selection and identification of one or more products (*e.g.*, eTickets) is through user input via the mobile device display. Shore-I teaches that the interaction with the PDA Pay application is through a user interface that receives input from the user. *Id.* ¶ 0449; Figs. 12a, 13a, 28; *see also* element 1.1. Shore-I further teaches that when an eTicket is selected, the user is prompted to input information (such as a payment method) through the application user interface. Ex. 1003 ¶ 115. Shore-I explains that “[i]f the Customer chooses to purchase the ticket(s) 406,” the user is “prompted to download electronic tickets” through the user device. Ex. 1005, ¶ 0188; *see also* ¶ 0207 (describing how a user must “push a send button or send icon” on the mobile device to redeem tickets); Fig. 10a (noting user input and user transmission). Shore-I further teaches that the user

may “enter information and make selections of options that appear on the LCD” display of the PayStick. *Id.* ¶ 0379. After the user identifies and selects the requested eTicket, the user would “press the ‘send’ button” on the PayStick “to send the information needed to fulfill the requested transaction (*e.g.*, electronic currency, eTicket, medical information prescription information, etc.)” *Id.* ¶ 0378. The user’s selection is received by the PDA system to “fulfill the requested transaction with the merchant.” *Id.* Shore-I teaches that each of the steps performed on the PayStick may be implemented using a PDA. *Id.* ¶ 0341.

g. Element 1.4

Shore-I alone or in combination with Angelica renders obvious element 1.4. Ex. 1003, ¶¶ 117-118. Shore-I teaches receiving a transaction purchase request (*e.g.*, ticket purchase request) from the non-browser based application generated screen (*e.g.*, PDA Pay and eTicket/mewallet application screen), wherein the non-browser based application generated screen receives the transaction purchase request from the user via the mobile device display (*e.g.*, PDA and/or PayStick LCD display).

For example, as illustrated in annotated Figure 12b, Shore-I teaches (in step 410) that a “transaction request” to purchase an eTicket is received at the PDA Pay application from the user.

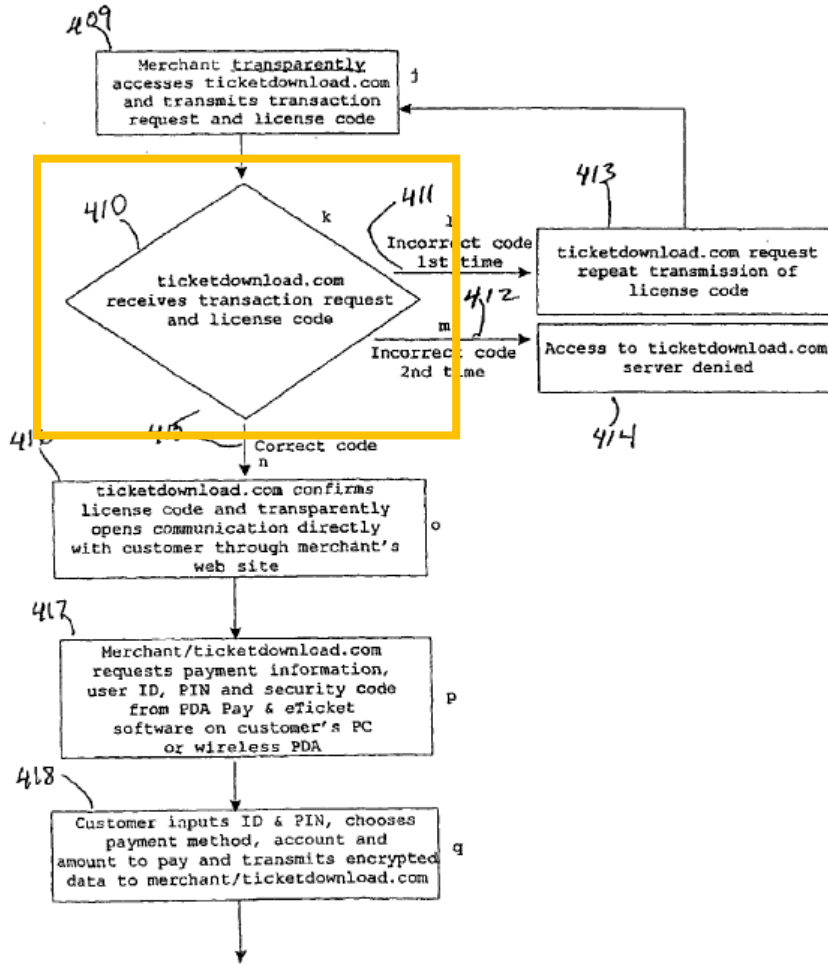


FIG. 12b

Ex. 1005, Fig. 12b (annotated). Shore-I further teaches that the transaction purchase request is received through user input via the mobile device display, as explained in section X.A.f (element 1.3) above. *Id.* ¶ 0188; 0207, 0351, 0378-0379. Shore-I teaches that the steps described in connection with the PayStick could be performed in the same way on the PDA mobile device. *Id.* ¶ 341.

h. Element 1.5

Shore-I alone or in combination with Angelica renders obvious Element 1.5. Ex. 1003, ¶¶ 119-120. Shore-I teaches receiving user input login information including an identification code (*e.g.*, user ID and/or PIN) associated with the user from the non-browser based application generated screen (*e.g.*, PDA Pay and eTicket/mewallet application screen) through user input via the mobile device display (*e.g.*, PDA and/or PayStick LCD).

For example, Shore-I teaches that the user inputs “***User ID, PIN, and other security code***” through the software installed on the “customer’s PDA or wireless phone/PDA 417.” Ex. 1005, ¶ 0191; *see also Id.* Fig. 12b (step 417 noting user ***ID and PIN*** are requested on customer’s wireless PDA); ¶ 0192 (“[t]he ***Customer would input*** the Customer’s User ID, and PIN”) ¶ 0414 (“***The user would input a user ID and PIN.***”).

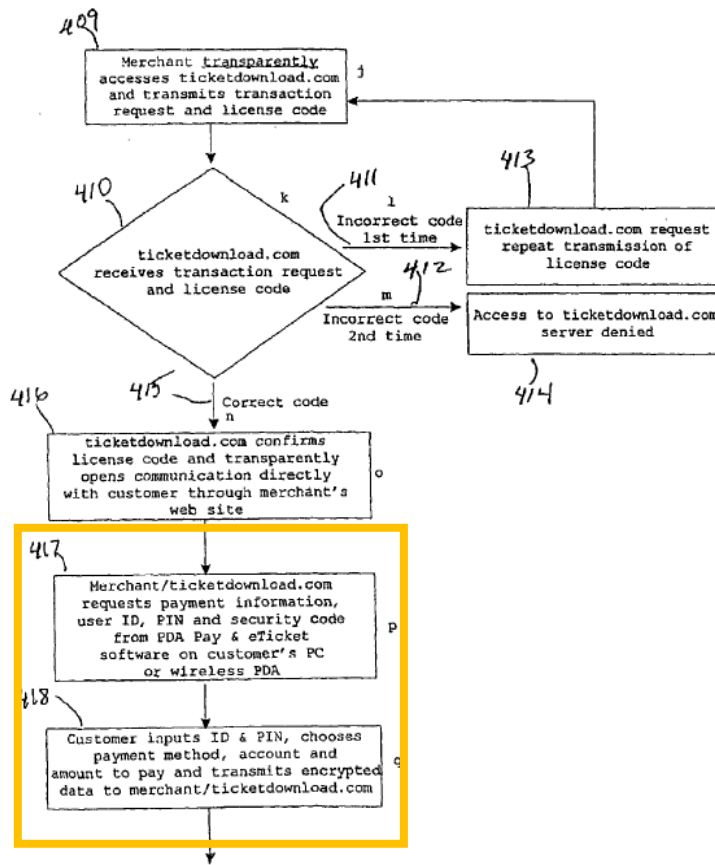


FIG. 12b

i. Element 1.6

Shore-I renders obvious Element 1.6. Ex. 1003, ¶ 121. Shore-I teaches authenticating, at the remote management server (e.g., Immtec server) the user associated with the user input login information (e.g., User ID and/or PIN). For example, Shore-I teaches that the “System Server software” includes, among other things, “users name, ID & PIN database 134 e,” and “users unique security codes 134 f,” that are used to authenticate users at the Immtec server. Ex. 1005, ¶

0118; Fig. 8 (PDA Pay & eTicket System Server Software); *see also Id.*, ¶¶ 0193, 0197 (disclosing that user’s login information is received and authenticated by the Immtec server and if the data matches, the System would allow the transaction to proceed.). Shore-I further teaches that the server software “*compares security code, user ID & PIN code* with codes in *database from Immtec.*” *Id.* Fig. 12c.

j. Element 1.7

Shore-I renders obvious Element 1.7. Ex. 1003, ¶ 122. As discussed above (in element 1.1), Shore-I teaches that the remote management server (*e.g.*, Immtec server) transmits a payment method (*e.g.*, a credit or debit card) that corresponds to the identification code associated with the user (*e.g.*, User ID and/or PIN) to the transaction server (*e.g.*, clearinghouse system or ACH server). Ex. 1005, Abstract, ¶¶ 0009, 0181, 0192, 0198, 0405; Figs. 12b, 12d.

k. Element 1.8

Shore-I renders obvious Element 1.8. Ex. 1003, ¶ 123. Shore-I teaches processing at the transaction server (*e.g.*, clearinghouse system or ACH server), the transaction using the payment method (*e.g.*, credit or debit card). For example, Shore-I teaches that the “clearinghouse system” is responsible for “distribut[ing] *credits* and *debits* . . . to the appropriate bank, credit card company, or other financial institution.” Ex. 1005, ¶ 0181; *see also* Fig. 12b (“Customer inputs ID & PIN, *chooses payment method*, account and amount to pay and transmits encrypted data

to merchant/ticketdownload.com”) ¶ 0333 (noting that the software is capable of “receiving, validating, storing, comparing, [and] transmitting . . . *users bank accounts data, users credit card accounts data, users brokerage accounts data, [and] other financial accounts data.*”). Shore-I further teaches that the ACH server processes the transaction using a payment method and provides verification of the transaction to the remote management server. *Id.* ¶ 0197-198 (“[i]f [] the System receives an approval of the transaction from the clearinghouse, the System would allow the transaction to proceed”); Fig. 12d.

l. Element 1.9a

Shore-I renders obvious Element 1.9a. Ex. 1003, ¶ 124. Shore-I teaches sending, from the transaction server (*e.g.*, clearinghouse system or ACH server), a transaction verification to the remote management server (*e.g.*, Immtec server) indicating that the transaction has processed.

The PDA system communicates with a “third party financial system such as a bank, credit card, debit card, or clearinghouse system.” Ex. 1005, ¶ 0180; *see also* ¶ 0065 (noting that the “Automated Clearing House (ACH) server 720,” is also connected to the Immtec server 750); Fig. 1d. Shore-I teaches that the “Server System” (*e.g.*, Immtec server that administer the ticketdownload.com system) “would request an approval, such as in the form of an approval code, for the transaction from, a financial service clearinghouse.” Ex. 1005, ¶ 0358. If sufficient

funds are available, the clearinghouse “approves the transaction, such as by transmitting an approval code” to Immtec. *Id.* ¶ 0360. Then a micropayment is made by deducting funds from the user and crediting the merchant’s account. *Id.*; *see also* ¶¶ 0194-197 (describing a similar process in which “the System receives an approval of the transaction from the clearinghouse, [and] the System would allow the transaction to proceed.”); ¶ 0065 (disclosing that the POP terminal is connected to the ACH server through the Immtec server); *see also* ¶¶ 0145-0146 (describing that a transaction is processed by deducting electronic funds, crediting merchant, and providing updated balance information to the PDA Pay & eTicket Software on the mobile device); Fig. 10c (illustrating same); ¶ 0072 (describing that after the PDA sends payment information the POP terminal sends it to the ACH server 850 for verification and the ACH would send an approval back); Fig. 1d.

m. Element 1.9b

Shore-I renders obvious Element 1.9b. Ex. 1003, ¶¶ 125-128. Shore-I teaches that after receiving the transaction verification, the remote management server (*e.g.*, Immtec server) downloads the one or more products (*e.g.*, eTickets) to the mobile device (*e.g.*, PDA or PayStick).

For example, Shore-I teaches that after an eTicket is purchased by the user, an eTicket (also referred to as “electronic authorization certificate”) is “transmitted to the Customer’s wireless phone/PDA [and] the System software in the wireless

phone/PDA would receive the eTicket(s) and would store the eTicket(s) in the eTicket database in the wireless phone/PDA's memory." Ex. 1005 ¶¶ 0200; 0064.

As illustrated in annotated Figure 12d below, ticketdownload.com, which interfaces with and administered by the Immtec server, "transmit, such as electronically, encrypted eTicket(s) to Customer's PC or wireless phone/PDA 451." *Id.* ¶ 0199;

Fig. 12d.

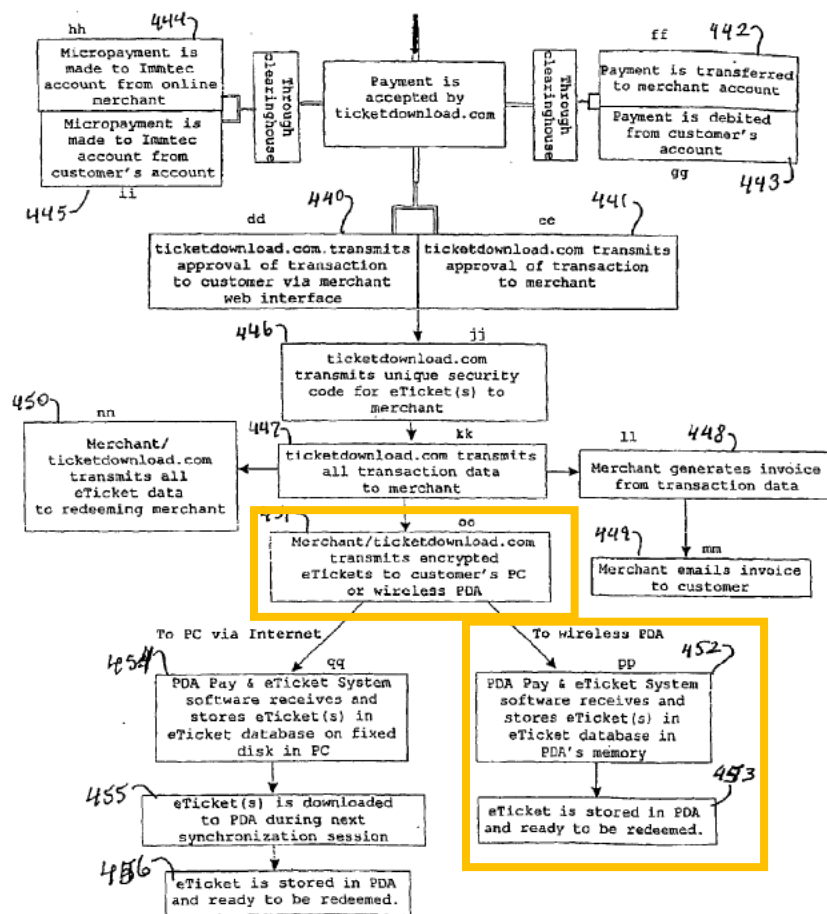


Fig. 12d

Unlike the Gautier reference—which Applicant distinguished during prosecution—Shore-I teaches that the eTicket is generated and sent to the mobile device from the *Immtec server*, which corresponds to the *management server*. For example, as shown in annotated Figure 1f, after a request for an eTicket is received at the Immtec server 1060, the *Immtec server* would “generate and send 1063 the eTicket” to the user.

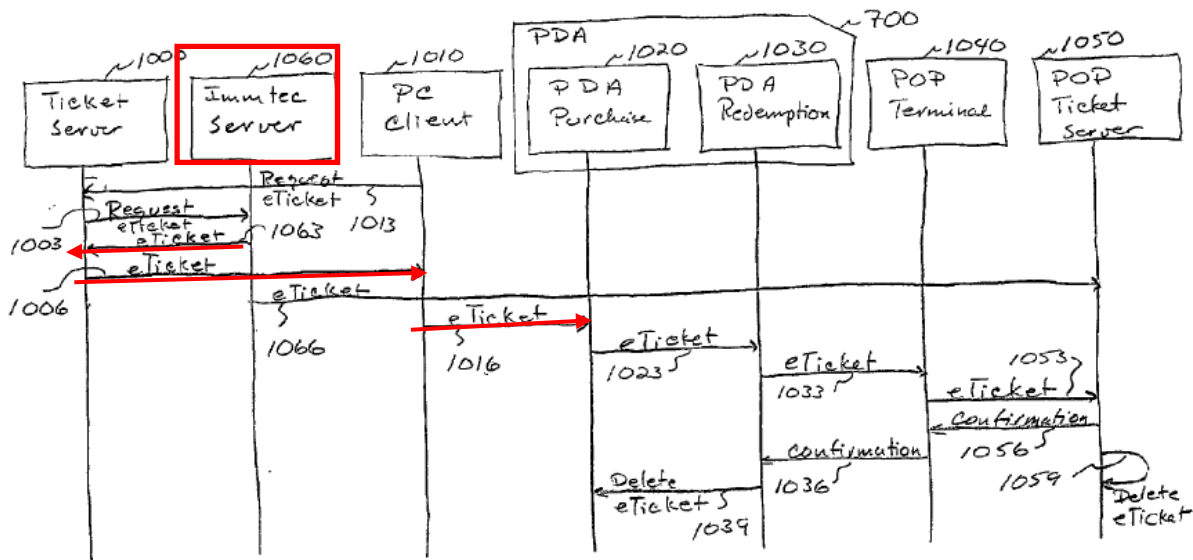


FIG. 1f Communication Sequence when using a PDA device as an eTicket carrier

Ex. 1005, ¶ 0075; Fig 1f; see also *id.* ¶ 0073 (teaching that “[t]he user could then select the *Immtec server as the provider of the eTicket certificate*,” and that “[t]he ticket broker could then request an *eTicket certificate from the Immtec server*.”); Ex. 1003 ¶ 128.

2. Independent Claim 2

a. Element 2[Pre]

To the extent the preamble is limiting, Shore-I renders it obvious. *See* Element 1[Pre].

b. Element 2.1

See Element 1.1

c. Element 2.2

See Element 1.1.

d. Element 2.3

See Elements 1.2a-c.

e. Element 2.4

See Element 1.3.

f. Element 2.5

See Element 1.4.

g. Element 2.6

See Element 1.5.

h. Element 2.7

See Element 1.6.

i. Element 2.8

See Element 1.7.

j. Element 2.9

See Elements 1.9a-b.

k. Element 2.10

See Elements 1.1 and 1.8.

3. Independent Claim 3

a. Element 3[Pre]

To the extent the preamble is limiting, Shore-I renders it obvious. See Element 1[Pre].

b. Element 3.1

See Element 1.1.

c. Element 3.2

See Elements 1.2a-c.

d. Element 3.3

See Element 1.3.

e. Element 3.4

See Element 1.4.

f. Element 3.5

See Element 1.5.

g. Element 3.6

See Element 1.6.

h. Element 3.7

See Element 1.7.

i. Element 3.8

See Element 1.8.

j. Element 3.9

See Elements 1.9a-b.

4. Dependent Claim 4

As discussed above, Shore-I alone or in combination with Angelica renders obvious claim 1. Shore-I further discloses the additional limitation of claim 4. Ex. 1003, ¶ 150. For example, Shore-I teaches that after a user inputs correct authenticating credentials into the PDA, payment options are displayed to the user by the System software. Ex. 1005, ¶¶ 0139-0140, 0166-0167, 0204-0205. The PayStick mobile device could be used at a POS to purchase tickets “without the user having to scroll through and choose the payment method, ticket type or other type of transaction,” such that it would have been obvious to a POSITA that a user uses the default settings of the device, including the default payment method. *Id.* ¶¶ 0327; Ex. 1003 ¶ 150. Shore-I also teaches that the same functionality can be implemented on the PDA mobile device. Ex. 1005, ¶ 0341.

5. Dependent Claim 5

As discussed above, Shore-I alone or in combination with Angelica renders obvious claim 1. Shore-I further discloses the additional limitation of claim 5. Ex. 1003, ¶ 151. Shore-I teaches that payment options are displayed to the user by the System software (Ex. 1005, ¶¶ 0139-0140, 0166-0167, 0204-0205) and the user can select a payment method. *Id.* ¶ 0140 (“[t]he User **would choose bank or credit card account 208.**”); see also Fig. 12b (“Customer inputs ID & PIN, **chooses payment**

method, account and amount to pay and transmits encrypted data to merchant/ticketdownload.com”).

6. Dependent Claim 6

As discussed above, Shore-I alone or in combination with Angelica renders obvious claim 2. Shore-I further discloses the additional limitation of claim 6. Ex. 1003, ¶ 152. Shore-I teaches that the payment method is a credit card. Ex. 1005, ¶ 0192 (“[t]he Customer would input the Customer’s User ID, and PIN, would choose *payment method*, (check, *credit card* or debit card) and amount to pay.”); *see also Id.* Abstract, ¶¶ 0009, 0198; Fig. 12d.

7. Dependent Claim 7

Shore-I renders obvious claim 7. *See* claim 4.

8. Dependent Claim 8

Shore-I renders obvious claim 8. *See* claim 5.

9. Dependent Claim 9

Shore-I renders obvious claim 9. *See* claim 6.

10. Dependent Claim 10

As discussed above, Shore-I alone or in combination with Angelica renders obvious claim 1. Shore-I further discloses the additional limitation of claim 10. Ex. 1003, ¶ 156. As explained above (Element 1.2a) Shore-I teaches that the PDA Pay application can be used even if the PDA and/or PayStick is not connected to a wireless network, such that eTickets may be accessed and redeemed using short-

range communication interfaces. Ex. 1005, ¶¶ 0163, 0203, 0319, 0341, 0351, 0378-0379, Figs. 12a-d, 19a, 20a. Shore-I teaches that the user's selection of eTickets occurs offline and the eTickets are redeemed through "the PDA's infrared interface to the infrared interface at the redeeming merchant's point of purchase device." *Id.* ¶ 0203; *see also id.* ¶ 0163 (referring to such instances as "*offline* transactions").

11. Dependent Claim 14

Shore-I renders obvious claim 14. *See* claim 10.

12. Dependent Claim 18

As discussed above, Shore-I alone or in combination with Angelica renders obvious claim 1. Shore-I further discloses the additional limitation of claim 18. Ex. 1003, ¶¶ 158-161. Shore-I teaches that after the transaction has processed, the remote management server (*e.g.*, Immtec server) sends a digital artifact (*e.g.*, an eTicket, a transaction approval, receipt, advertisement, and/or digital transaction data used for generating an invoice/receipts) to the mobile device (*e.g.*, PDA and/or PayStick). For example, Shore-I teaches that after an eTicket is purchased by the user, an eTicket (also referred to as "electronic authorization certificate") is "transmitted to the Customer's wireless phone/PDA [and] the System software in the wireless phone/PDA would receive the eTicket(s) and would store the eTicket(s) in the eTicket database in the wireless phone/PDA's memory." Ex. 1005, ¶¶ 0200;

0064, 0199; Fig. 12d. As explained above (element 1.9b), the eTicket is generated and sent to the mobile device from the Immtec server. *Id.* ¶ 0075, 0073; Fig 1f.

Shore-I further teaches that the Immtec server sends to the PDA Pay application a transaction confirmation, a record of the transaction, and digital transaction data for generating an invoice/receipt. *Id.* ¶ 0072 (describing that the ACH server—which is connected to the POP terminal through the Immtec server (¶ 0065)—would send confirmation 865 to the PDA.); *see also* ¶ 0146; Figs. 10a-c (describing sending a “record of the transaction” from the POP device to the PDA); ¶ 0199 (“Ticketdownload.com would transmit all transaction data to the online Merchant” which “would generate an invoice/receipt from the transaction data [] and would email the invoice/receipt to the Customer.”). Further, “users customer specific receipt *advertising* data” stored in the Immtec server is also sent to the mobile device. *Id.* ¶ 0333, 0059.

13. Dependent Claim 19

As discussed above, Shore-I alone or in combination with Angelica renders obvious claims 1 and 18. Shore-I further discloses the additional limitation of claim 19. Ex. 1003, ¶¶ 162-164. Shore-I teaches that a digital artifact (*e.g.*, an eTicket and/or receipt) is cached on the mobile device (*e.g.*, stored in local memory of the PDA and/or PayStick) and is accessible by the non-browser based application (*e.g.*, the PDA Pay and eTicket/mewallet application) when there is no network

connection. For example, Shore-I teaches that “System software in the wireless phone/PDA would receive the eTicket(s) and store the eTicket(s) in the eTicket database in the wireless phone/PDA’s memory.” Ex. 1005, ¶ 0201; *see also* Fig. 12d (noting “eTicket is stored in PDA and ready to be redeemed”). Shore-I further teaches that eTickets may be accessed and redeemed “for entrance to an event or for purchase of an item” through short-range communication interface, such as infrared, that communicates with “the infrared interface at the redeeming merchant’s point of purchase device.” *Id.* ¶ 0203. As explained in claim 10 above, the PDA Pay application on the mobile device, which stores the eTickets, is operable offline or without a network connection. *Id.* ¶¶ 0203, 0319, 0341, 0351, 0378-0379, Figs. 12a-d, 19a, 20a; *see also* ¶ 0163 (referring to “*offline transactions . . .*”). A POSITA would have understood that a user can access the eTicket, which is locally cached on the mobile device in the PDA Pay application, and redeem it when there is no network connection by using short-range communication interface, such as infrared. Ex. 1003 ¶ 163. Shore-I further teaches that a transaction confirmation (*e.g.*, receipt) is locally stored on the mobile device in a transaction database, such that a POSITA would have understood it is accessible on the device when there is no network connection. Ex. 1005, ¶ 0072; Fig. 1d; Ex. 1003 ¶ 164.

14. **Dependent Claim 23**

As discussed above, Shore-I alone or in combination with Angelica renders obvious claim 1. Shore-I further discloses the additional limitation of claim 23. Ex. 1003, ¶ 165. Shore-I teaches that the “non-browser based application” (e.g., PDA Pay and eTicket/mewallet software application) includes a graphical user interface that allows interaction between the application and mobile device through a graphical icon. For example, Shore-I teaches that the non-browser based application includes a graphical user interface that permits the user to interact with the PDA Pay and eTicket software and purchase eTickets. Ex. 1005, Figs. 12a, 13a, 28; ¶ 0449; *see also* Element 1.2a. Shore-I further teaches a graphical icon that enables the interaction between the application and mobile device. For example, Shore-I teaches that “a User would access the PDA” and “would choose a PDA Pay & eTicket System *icon* via pen pad, keypad or voice 201.” Ex. 1005, ¶ 0139; *see also* ¶ 0204 (“The User would choose the PDA Pay and eTicket/mewallet™ System *icon 501*.”).

15. Dependent Claim 24⁵

⁵ The term “an organized and easily retrievable fashion” of claims 24 and 31 is potentially indefinite because it does not provide an objective standard to define what “organized and easily retrievable fashion” means. *See, e.g., Halliburton Energy Servs., Inc. v. M-I, LLC*, 456 F. Supp. 2d 811, 817-824 (E.D. Tex. 2006), *aff'd*, 514 F.3d 1244, 85 U.S.P.Q.2d 1654 (Fed. Cir. 2008); *Cypress Lake*

As discussed above, Shore-I alone or in combination with Angelica renders obvious claims 1 and 18. Shore-I further discloses the additional limitation of claim 24. Ex. 1003 ¶ 166. Shore-I teaches that the non-browser based application (*e.g.*, “PDA Pay and eTicket/mewallet” application) is configured to use a structured format, by, for example, listing all purchased eTickets in a structured format. Ex. 1005, ¶ 0206 (the PDA Pay application would “prompt the User to select eTicket(s) to be redeemed by *listing all eTickets available for redemption.*”) Shore-I further teaches that the PDA Pay and eTicket/mewallet application can store and display a digital artifact (*e.g.*, eTickets) in an organized and easily retrievable fashion. *Id.* ¶ 0206-207 (describing that the application lists all eTickets available for redemption on the mobile device); ¶ 322 (describing that data on the mobile device “can be *easily viewed*” and retrieved.)

16. Dependent Claim 25

Shore-I renders obvious claim 25. *See* claim 18.

17. Dependent Claim 26

Software, Inc. v. Samsung Elecs. Am., Inc., 382 F. Supp. 3d 586 (E.D. Tex. 2019).

Nonetheless, for purposes of this Petition, the Board is not required to address this issue because the prior art discussed in this Petition teaches this limitation, as explained herein.

Shore-I renders obvious claim 26. *See* claim 19.

18. Dependent Claim 30

Shore-I renders obvious claim 30. *See* claim 23.

19. Dependent Claim 31

Shore-I renders obvious claim 31. *See* claim 24.

20. Dependent Claim 32

As discussed above, Shore-I alone or in combination with Angelica renders obvious claims 1 and 18. Shore-I further discloses the additional limitation of claim 32. Ex. 1003, ¶ 171. As explained above (claim 18), Shore-I teaches that the digital artifact is a ticket (*e.g.*, “eTicket”), a receipt (*e.g.*, a transaction approval), content (*e.g.*, digital transaction data used for generating an invoice/receipts), or coupon/advertisement (*e.g.*, “users customer specific receipt advertising data”). Ex. 1005, ¶¶ 0064, 0072, 0146, 0199-200, 0333.

21. Dependent Claim 35

Shore-I renders obvious claim 35. *See* claim 32.

B. Ground II: Claims 22 and 29 Are Rendered Obvious by Shore-I in Combination with Angelica

1. Dependent Claim 22

Shore-I in combination with Angelica renders obvious claim 22. Ex. 1003, ¶¶ 174-176. Angelica teaches that the non-browser application is configured to “zoom” into an image of a product through user’s input on the display of the mobile device.

For example, Angelica teaches that the user can interact with the user interface of the application by “click[ing] on an interactive direct action function *on the screen itself*.” Ex. 1006, ¶ 0049. And Figure 5 of Angelica illustrates a “zoomed in” image of a product (diced bread, boxed in orange) presented on a user interface:



Id. Fig. 5; ¶¶ 0018, 0049. A POSITA would have recognized that such zoomed-in image was generated via a user input to zoom into the image associates with a product (Diced Bread) that was selected for purchase. Ex. 1003, ¶ 175. A POSITA would have been motivated to combine Shore-I and Angelica and would have had a reasonable expectation of success in arriving at the alleged invention recited in the Challenged Claims of the '007 Patent by combining the teachings of Shore-I and Angelica, as explained in Section X.A.1.c.(3) and in Dr. Chatterjee's declaration. Ex. 1003 ¶¶ 99-108.

2. Dependent Claim 29

Shore-I in combination with Angelica renders obvious claim 29. *See* claim 22.

C. Ground III: Claims 11 and 15 Are Rendered Obvious by Shore-I in Combination with Angelica and Mazur

1. Motivation to Combine Shore-I, Angelica, and Mazur

As Dr. Chatterjee explained, a POSITA would have been motivated to combine the teachings of Shore-I with the teachings of Angelica. Ex. 1003 ¶¶ 99-108. A POSITA also would have been motivated to further combine the teachings of Shore-I and Angelica with the teachings of Mazur, as explained below and in Dr. Chatterjee's Declaration. Ex. 1003 ¶¶ 178-182. Combining Shore-I, Angelica and Mazur would have involved routine implementation in software only, would have posed no technical risks given the related and complementary teachings, and would have successfully achieved the predictable benefits of providing an improved system for online mobile payments. *Id.*

Shore-I, Angelica and Mazur relate to the same field—*i.e.*, purchasing content, goods and services through the use of a mobile wireless device—and seek to address the same problem: improving the way mobile devices are used to conduct mobile payments for the purchasing of goods online. Ex. 1005, Abstract; Ex. 1006 ¶ 0009, Ex. 1007, ¶ 0001. A POSITA would have been motivated to improve Shore-I's online payment system with Angelica's non-browser based application by incorporating Mazur's specific teaching of the mobile device monitoring for access

to the wireless network and automatically reconnecting when the wireless network is available. Such automatic reconnection is beneficial in the offline environments described in Shore-I, such as using a mobile device at a point-of-sale without internet connection. Ex. 1005, ¶ 0163 (discussing offline transactions). A POSITA would have viewed the addition of the well-known functionality described in Mazur to the system described by Shore-I and Angelica as the application of a well-known concept (*e.g.*, monitoring and automatically reconnecting to a wireless network, *see* Ex. 1007, ¶ 0071) to a known system (*e.g.*, the “point of sale financial transaction” system described by Shore-I, *see* Ex. 1005, ¶ 0001; and the non-browser based application described by Angelica, Ex. 1006, ¶ 0009) to yield predictable results (*e.g.*, improving the way mobile devices communicate with merchants’ terminals and synchronize with servers). Ex. 1003 ¶ 179.

Shore-I teaches the technical details to implement the back end of an online payment system (*i.e.*, the communications between a mobile device and the remote management and transaction servers). Ex. 1005, Fig. 1a, ¶ 0061. Shore-I further teaches that the mobile device can operate offline without a connection to a wireless network, for example, by using short-range data transmission (such as infrared and Bluetooth) to communicate with ATMs and credit-card terminals that do not require internet connection. *Id.* ¶ 0105, 0335; *see also id.* ¶ 0163 (referring to such instances as “offline transactions”). Because the concept of monitoring for a wireless network

and automatically reconnecting when it becomes available was well-known, Shore-I did not specify the implementation details of such functionality and instead disclosed that the mobile device can operate using a wireless network as well as offline. *Id.* ¶ 0163. In light of Shore-I’s teachings, a POSITA would have been motivated to look for ways to implement the functionality of monitoring for a wireless network when the mobile device is offline and automatically reconnecting when it becomes available, because such functionality would allow the mobile device to automatically synchronize with a server once the device restores connectivity to the network, minimizing interruptions in functionality for the user. Ex. 1003 ¶ 180; Ex. 1005, ¶ 0233 (describing “synchroniz[ing] the PDA’s database with the Immtec database.”). A POSITA would have thus recognized that Shore-I and Angelica contemplate the use of such functionality, for example, in devices that can also operate offline (as described in Shore). *Id.* ¶¶ 0105, 0335, 0163.

Upon consulting Mazur, a POSITA would have recognized that the functionality described in Mazur would be applicable to the system described in Shore-I. Mazur describes a mobile device can operate offline—for example, when the connection to a wireless network is not available—and later reconnects to a wireless network when it becomes available to synchronize with the system server and update the state of the user’s account. Ex. 1007, ¶ 0071. Mazur explains that such functionality is beneficial because it permits the authorization of offline

transactions in the case where the system server is unavailable and cannot be contacted, and it allows a mobile client—which stores the balance of the user’s account—to synchronize with the system server to keep both the mobile device and server in the same state (and update the user’s account balance). *Id.* ¶ 0052.

A POSITA would also have a reasonable expectation of success in arriving at the alleged invention recited in the Challenged Claims of the ’007 Patent by combining the teachings of Shore-I, Angelica and Mazur because, consistent with the teaching of Shore-I that the mobile device is operable offline (Ex. 1005, ¶¶ 0105-0107, 0115-0118, 0163), Mazur teaches that the mobile device reconnects to a wireless network when it becomes available to synchronize with the system server (Ex. 1007, ¶ 0071), and such functionality would have involved a routine software implementation, as explained by Dr. Chatterjee. Ex. 1003 ¶ 182.

2. Dependent Claim 11

Shore-I in combination with Angelica and Mazur renders obvious claim 11. Ex. 1003, ¶¶ 183-184. Mazur teaches that a mobile device uses a mobile client that stores the balance of the user’s account and synchronizes with the system server to keep both the mobile device and server in the same state. Ex. 1007, ¶ 0053. Mazur explains that this permits the authorization of offline transactions where the system server is unavailable and cannot be contacted. *Id.* ¶ 0071. Mazur teaches that an offline transaction is “stored in the mobile client 70” and “synched to the system

server 12 *when the connection becomes available.*” *Id.* A POSITA would have recognized that such functionality requires that the mobile client described in Mazur would monitor for network connection and automatically reconnects to the network once it becomes available to synchronize with the system server, and such functionality was well-known to a POSITA at the time of the ’007 Patent. Ex. 1003, ¶ 184.

3. Dependent Claim 15

Shore-I in combination with Angelica and Mazur renders obvious claim 15.

See claim 11.

D. Ground IV: Claims 20 and 27 are Rendered Obvious by Shore-I in Combination with Angelica and Knight

1. Motivation to Combine Shore-I, Angelica, and Knight

As Dr. Chatterjee explained, a POSITA would have been motivated to combine the teachings of Shore-I with the teachings of Angelica. Ex. 1003 ¶¶ 99-108. A POSITA would have been motivated to further combine the teachings of Shore-I and Angelica with the teachings of Knight, as explained below and in Dr. Chatterjee’s Declaration. Ex. 1003 ¶¶ 186-190. Combining Shore-I, Angelica and Knight would have involved routine implementation in software only, would have posed no technical risks given their related and complementary teachings, and would have successfully achieved the predictable benefits of providing an improved system for online mobile payments. *Id.*

Shore-I, Angelica, and Knight all relate to downloading a digital file from a server using a mobile device. Ex. 1005, ¶¶ 0184, 0199, Fig. 12d (describing downloading a digital eTicket from a server using a PDA); Ex. 1006, ¶ 0049 (describing a “home shopping channel” to purchase products, such as “downloadable software programs”); Ex. 1008, 4:6-16 (describing downloading digital music content from a remote server using a wireless device.) A POSITA would have been motivated to improve Shore-I’s online payment system with Angelica’s non-browser based application by incorporating Knight’s specific teaching of generating an alert and requesting retransmission if a digital file has not been received from the server within a certain period of time, because such functionality ensures automatic retransmission of files to overcome downloading errors and deliver the requested content to the user as soon as possible. Ex. 1008, 27-28, 80-81; Ex. 1003 ¶ 187. A POSITA would have viewed the addition of Knight’s acknowledgement (Ack) and non-acknowledgment (Nak) signals to alert and request retransmission of a file (if it failed to properly download from a server within a certain period of time) to the system described by Shore-I and Angelica as the application of a well-known concept (*e.g.*, acknowledgement (Ack) and non-acknowledgment (Nak) signals, *see* Ex. 1008, 80-81) to a known system (*e.g.*, the “point of sale financial transactions” system described by Shore-I, *see* Ex. 1005, ¶ 0001; and the non-browser based application described by Angelica, Ex. 1006, ¶

0009) to yield predictable results (*e.g.*, improving the way mobile devices overcome download errors involving a client and a server). Ex. 1003 ¶ 187.

Shore-I teaches the technical details to implement the back end of an online payment system (*i.e.*, the communications between the mobile device and the remote management and transaction servers). Ex. 1005, Fig. 1a, ¶ 0061. Shore-I also teaches a mobile device (*e.g.*, PDA) used for downloading a digital file (*e.g.*, eTicket) from a server. *Id.*, ¶¶ 0184, 0199; Fig. 12d. Because the concept of generating an alert and requesting a retransmission if the digital file has not been received from the server within a certain period of time was well-known, Shore-I did not specify the implementation details of such functionality and instead generally disclosed that the server system software would include a “receive and acknowledge routine,” which was a well-known concept. *Id.* ¶ 0333; Ex. 1003 ¶ 188. In light of Shore-I’s teachings, a POSITA would have been motivated to look for ways to implement the well-known “receive and acknowledge routine” to alert and request retransmission of a file if it failed to properly download from a server within a certain period of time, because such functionality is a basic and fundamental aspect of a client-server architecture that enables efficient transmission of digital files with minimal errors. Ex. 1003 ¶¶ 188-189. Upon consulting Knight, a POSITA would have recognized that using acknowledgement (Ack) and non-acknowledgment (Nak) signals to indicate whether a digital file was not received due to error is an

implementation of the “receive and acknowledge routine” contemplated by Shore-I. Ex. 1003 ¶¶ 188-189. Knight explains that such functionality is beneficial because it is “telling the server that there was a problem with the receiving or storing of the data file” and it causes the server to retransmit it. Ex. 1008, 27-28, 80-81.

A POSITA would also have had a reasonable expectation of success in arriving at the alleged invention of the Challenged Claims of the '077 Patent by combining the teachings of Shore-I, Angelica and Knight because, consistent with the teaching of Shore-I that the server system software would include “receive and acknowledge routine” (Ex. 1005, ¶0333), Knight teaches that the mobile client uses the well-known Ack and Nak signals to implement such functionality (Ex. 1008, 80-81), which would have involved a routine software implementation, as explained by Dr. Chatterjee. Ex. 1003 ¶ 190.

2. Dependent Claim 20

Shore-I in combination with Angelica and Knight renders obvious claim 20. Ex. 1003, ¶¶ 191-194. Knight teaches that the software client is “regularly downloading and updating files” and “[w]hen an error occurs” with downloading a file, the software would “inform the user,” for example, by generating and showing an alert, such as “an error message to the user.” Ex. 1008, 27:5-30; 28:21-23. Knight further teaches an alert, such as “ExceptionLang” object, which “[c]ontains the error messages.” *Id.* 28:3-5. Knight further teaches the use of “client acknowledgements”

in which “the client is required to acknowledge the receipt of every piece of data sent to it by the server” by sending an “Ack” signal to indicate the file was received from the server. *Id.* 80:13-17. Knight explains that “[i]f the client does not successfully receive and store a data file it has requested, it should send a Not Acknowledged notification to the server,” such as a “Nak” signal. *Id.* 81:15-30. This Nak signal alerts the server “that there was a problem with the receiving or storing of the data file.” *Id.* A POSITA would have understood that alert (*e.g.*, the Nak signal) is generated if the file is not received from the server within a certain period of time because Knight teaches that the software client and server are constantly recording time (*id.* at 90) and such functionality was generally well-known to a POSITA at the time of the ’007 Patent. Ex. 1003 ¶¶ 193-194.

3. Dependent Claim 27

Shore-I in combination with Angelica and Knight renders obvious claim 27.

See claim 20.

E. Ground V: Claims 21, 28, 33, 34 and 36 are Rendered Obvious by Shore-I in Combination with Angelica and Shore-II.

1. Dependent Claim 21

Shore-I in combination with Angelica and Shore-II renders obvious claim 21.

Shore-II teaches that the management server sends a digital artifact (*e.g.*, an advertisement) to the non-browser application generated screen on the mobile device based on geographical location of the mobile device. Ex. 1014, ¶ 0056 (“[w]hen a

customer conducts a transaction using a mewallet™ device, the details of that transaction, including the ... time and **location**, are transmitted to the Immtec CSRA system and stored in the customer's data profile.”), ¶ 0196 (“Immtec adds present **location**, time and all purchase data to customer’s CSRA database file.”), ¶ 0197. A POSITA would have understood that the location of the mobile device is used by the CSRA system to send targeted advertisement based on the location of the device. Ex. 1003, ¶ 196.

As Dr. Chatterjee explained, a POSITA would have been motivated to combine the teachings of Shore-I with the teachings of Angelica. Ex. 1003 ¶¶ 99-108. A POSITA would have been motivated to further combine the teachings of Shore-I and Angelica with the teachings of Shore-II. Ex. 1003 ¶ 197. Shore-I and Shore-II relate to the same invention—the Immtec/mewallet™ mobile transaction system—and both were filed by the same applicant (Jon Shore), around the same time (February and September 2001 respectively). Ex. 1005, cover; Ex. 1014, cover. Shore-I provides the technical details to implement the back end of the Immtec payment system. Ex. 1005, Fig. 1a, ¶ 0061. Shore-I also teaches that the Immtec system includes “CSRA” and that the Immtec Server System software includes “user[‘]s customer specific receipt advertising data.” *Id.* ¶¶ 0059, 0333. Because the distribution of advertisements to users was not the focus of Shore-I, it did not specify the implementation details of such feature and instead generally disclosed

that the Immtec system implements the CSRA system and includes user's advertising data. *Id.* In light of the teachings of Shore-I, a POSITA would have been motivated to look for other disclosures by Shore that provide additional details about the CSRA and advertisement distribution system of Immtec, including based on geographic location. Ex. 1003 ¶ 197. Upon consulting Shore-II, a POSITA would have recognized that it teaches exactly the CSRA system and "customer specific receipt advertising data" described in Shore-I. Ex. 1014, ¶¶ 0002, 0056-63. A POSITA would also have a reasonable expectation of success in arriving at the alleged invention recited in the Challenged Claims of the '007 Patent by combining the teachings of Shore-I, Angelica, and Shore-II because both Shore-I and Shore-II describe the same Immtec/mewallet mobile transaction system. Ex. 1005, ¶ 0059; Ex. 1014, ¶ 0003.

2. Dependent Claim 28

Shore-I in combination with Angelica and Shore-II renders obvious claim 28. *See* Claim 21.

3. Dependent Claim 33

Shore-I in combination with Angelica and Shore-II renders obvious claim 33. Ex. 1003 ¶ 199. Shore-II teaches that the advertisement or coupon is based on one or more targeting parameters, such as the customer's information and buying history. For example, Shore-II teaches that the Immtec/mewallet system described in Shore-

I includes a “Customer Specific Receipt Advertising (‘CSRA’)” program that “provide[s] participating retailers and service providers the ability to offer *coupons, advertising*, promotional offers, and communications on printed or electronic receipts such that the coupons are *specifically oriented towards each particular customer’s buying habits, preferences and needs.*” Ex. 1014, ¶ 0002; *see also* 0056-63.

4. Dependent Claim 34

Shore-I in combination with Angelica and Shore-II renders obvious claim 34. Ex. 1003 ¶ 200. Shore-II teaches that the targeting parameters comprise personal information (*e.g.*, “user name and PIN”) and transaction related information (*e.g.*, “the details of [a] transaction, including the amount, items purchased, method of payment used, date, time and location”). Ex. 1014, ¶ 0035, 0056.

5. Dependent Claim 36

Shore-I in combination with Angelica and Shore-II renders obvious claim 36. *See* claim 33.

XI. SECONDARY CONSIDERATIONS

Samsung is unaware of any evidence of alleged secondary indicia that would support non-obviousness of the ’007 Patent, but to the extent Patent Owners subsequently present such evidence, Petitioner respectfully requests the right to respond.

XII. PTAB DISCRETION SHOULD NOT PRECLUDE INSTITUTION

The DJ Action does not warrant discretionary denial under 35 U.S.C. § 314(a) because the *Fintiv* framework favors institution. *See Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 6 (PTAB Mar. 20, 2020). There is no case schedule and no set trial date (*Fintiv* factor 2), nor has there been much, if any, investment in the DJ Action (factor 3): Patent Owner has not yet responded to the Complaint (due by September 13, 2021), and discovery has not yet opened. *Fintiv*, Paper 11 at 9-12. Moreover, Patent Owner filed a motion for intra-district transfer on August 26, 2021, which, if granted, would require reassignment to a different judge, resulting in further delays to the case. There is minimal overlap in issues (factor 4), as Petitioner is not currently challenging validity in the DJ Action. *Id.* at 12-13. Even if Petitioner raises invalidity in the future—in response to Blaze raising infringement counterclaims—any potential overlap will be mitigated by Petitioner raising different prior art in the DJ Action (including potential product art) and moving for a stay pending the outcome of this proceeding. Indeed, a stay may be likely (factor 1) given the early stage and potential simplification of the DJ action (resulting from the Board invalidating claims of the patents-in-suit) and the lack of prejudice to Patent Owner (as a non-competitor of Petitioner). *See PersonalWeb, LLC v. Apple Inc.*, 69 F. Supp. 3d 1022, 1025, 1030 (N.D. Cal. 2014). Finally, the strong merits

of the grounds presented in this Petition (factor 6) further support institution. *Fintiv*, Paper 11 at 14-15.⁶

XIII. CONCLUSION

Samsung requests institution of an IPR and cancellation of the Challenged Claims.

⁶ Factor 5 is neutral because the parties named in this proceeding and the DJ Action are the same. *See Fintiv*, Paper 11 at 13-14 (noting only that factor 5 “weigh[s]... against” exercising discretionary denial where petitioner is unrelated to defendant in earlier court proceeding).

Petition for *Inter Partes* Review of U.S. Patent No. 10,825,007

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Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

This Petition complies with the type-volume limitations as mandated in 37 C.F.R. § 42.24, totaling 13,956 words. Counsel has relied upon the word count feature provided by Microsoft Word.

/s/ Todd M. Friedman
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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing and supporting exhibits 1001-1017 was served on September 10, 2021, via overnight delivery directed to Patent Owners, Blaze Mobile, Inc. and Michelle Fisher, at the following address:

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A copy was also served via electronic mail and FTP on the attorneys of record listed below for the following related matters:

Samsung Electronics Co. Ltd. et al. v. Blaze Mobile Inc., et al., Case No. 21-cv-02989-EJD

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