

Petition for *Inter Partes* Review of U.S. Patent No. 10,699,259

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. 10,699,259

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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Exhibit No.	Description
1001	U.S. Patent No. 10,699,259
1002	File History of U.S. Patent No. 10,699,259
1003	Declaration of Dr. Sandeep Chatterjee for <i>Inter Partes</i> Review of U.S. Patent No. 10,699,259
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>Bedrijfswisskunde 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. 10,825,007 (“the ’007 Patent”)
1012	’259 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 1-24, and 27-33 (“the Challenged Claims”) of U.S. Patent No. 10,699,259 (the “’259 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 ’259 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 ’259 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 '259 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 '259 Patent and U.S. Patent No. 10,825,007 (the “'007 Patent”), which is related to the '259 Patent. Further, concurrently with this Petition, Petitioner has filed an IPR petition challenging claims of the '007 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 '259 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 '259 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 '259 Patent claims priority was filed, as the priority date of the '259 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 '259 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	1-18, 24, 27, 33	Obvious under § 103 in view of Shore-I <u>Alternative:</u> Obvious under § 103 in view of Shore-I in combination with Angelica
II	23, 32	Obvious under § 103 in view of Shore-I in combination with Angelica
III	19, 28	Obvious under § 103 in view of Shore-I in combination with Angelica and Mazur
IV	20, 21, 29, 30	Obvious under § 103 in view of Shore-I in combination with Angelica and Knight
V	22, 31	Obvious under § 103 in view of Shore-I in combination with Angelica and Shore-II

VI. OVERVIEW OF THE TECHNOLOGY

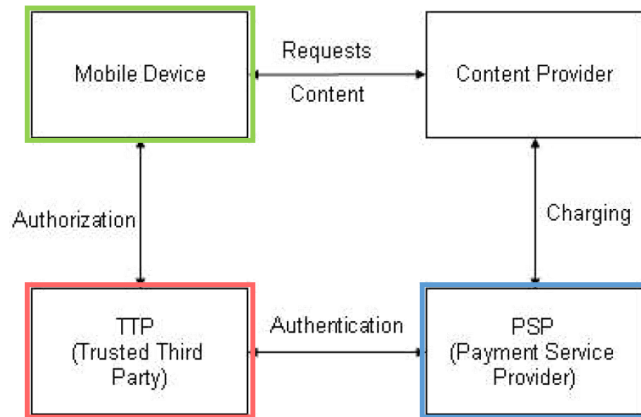
Dr. Chatterjee provides an overview of the background technology in his Declaration. The '259 Patent is generally directed to a mobile payment system for conducting online payment transactions (*e.g.*, purchasing products, services, or tickets) using a mobile device (*e.g.*, a cell-phone or a PDA) and an application installed on the mobile device. Ex. 1003 ¶ 44; Ex. 1001, 1:46-2:9.

As Dr. Chatterjee explains, and the '259 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 '259 Patent. Ex. 1003 ¶ 45; Ex. 1001, 1:30-42. 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, 2:38-54; 3:34-38; 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 ’259 PATENT

The ’259 Patent issued on June 30, 2020, from U.S. Application No. 15/076,578 (filed on March 21, 2016) and is a continuation of U.S. Application No. 14/083,044 (filed on November 18, 2013), which is a continuation of U.S. Application No. 13/735,337 (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 '259 Patent for purposes of this Petition.

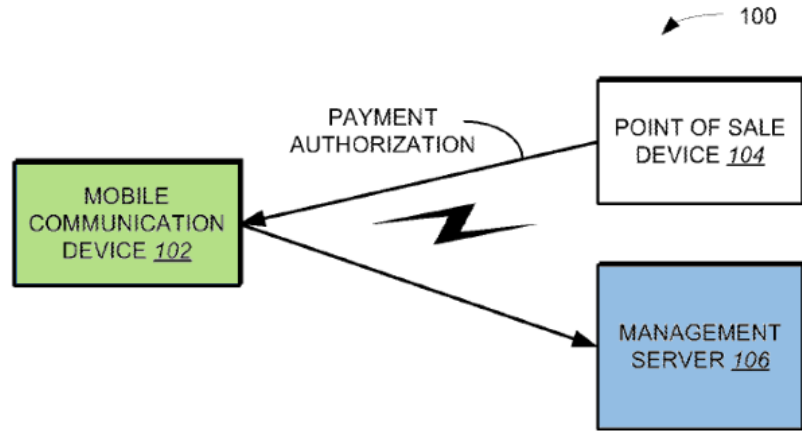
A. The Claims

The '259 Patent has 35 claims, including three independent claims (claims 1, 7, and 13). Claims 1-24, and 27-33 are the Challenged Claims.

B. Summary of the Specification

The '259 Patent is directed to “a method and system for conducting an online payment transaction through a point of sale device.” 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.* 1:30-42.

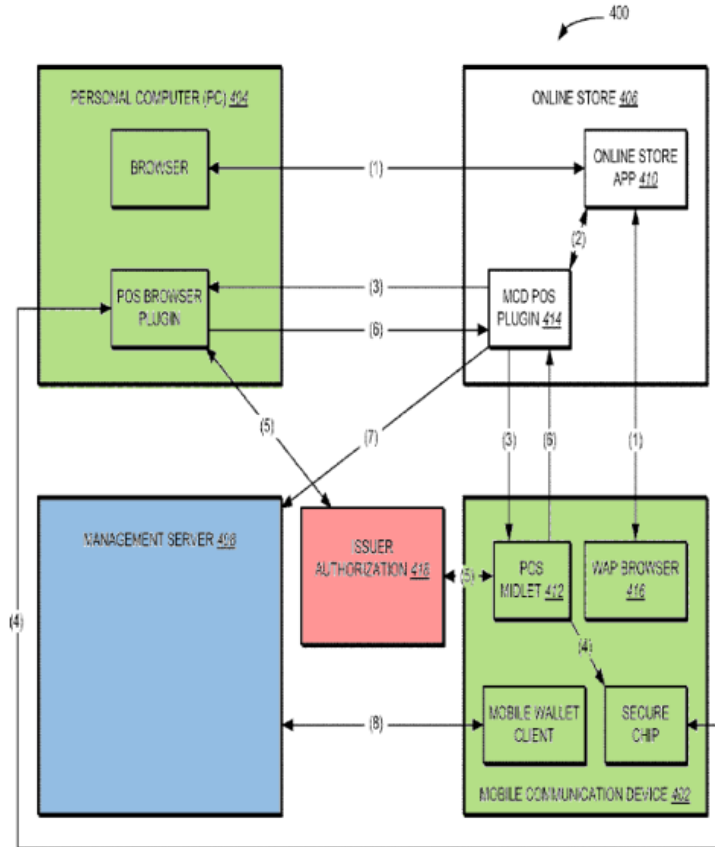
As illustrated in Figure 1 below, the '259 Patent purports to provide an online payment system that includes “a hand-held, wireless mobile communication device 102” (annotated in green), “a point-of-sale device 104” and “a management server 106” (annotated in blue). *Id.* 2:38-45; Fig. 1.



According to the '259 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.* 2:13-33, 3:18-20.

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.* 5:61-6:3. The mobile device then sends transaction information for authorization” to the point-of-sale device. *Id.* 6:16-20. The mobile device also sends a “formatted authorization request” to a “payment entity (*e.g.*, issuer authorization 418)” (*id.* 6:39-42, 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.* 1:66-2:3, 2:65-3:2. 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.* 6:45-48.



C. Summary of the Prosecution History

The '259 Patent issued from U.S. App. No. 15/076,578, filed March 21, 2016. The Examiner issued two office actions on July 28, 2017 and December 6, 2017, rejecting the claims for lack of written description under 35 U.S.C. § 112 and for being obvious under § 103 over the prior art. Ex. 1002, at 493, 348. After receiving a final rejection, the Applicant filed a Notice of Appeal with the PTAB on May 8, 2018. *Id.*, 275. On March 2, 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 141. The claims were allowed on May 13, 2020. *Id.*, at 101.

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 ’259 and the ’007 Patents, the Applicant made several statements that inform the meaning of the terms “non-browser based application” and “receive/receiving... the one or more products from the remote management server,” of independent claims 1, 7, and 13. 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 '259 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 241.³ 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 and define ‘browser based’ as ‘*an application that has a design, structure, or functionality similar to a web browser.*’” *Id.* 334. 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.* 242.

Further, during prosecution of the '007 Patent, Applicant 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

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

specifically cited the Wikipedia entry 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. Ex. 1011, 738-740; *see also id.*, 653-654, 697-699, 714-716, 738.

B. “Receive/Receiving... The One Or More Products From The Remote Management Server”

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 231-235. 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 ’259 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 '259 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 '259 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 '259 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 card/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 ’259 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 ’259 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 ’259 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 Immtec/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 1–18, 24, 27, and 33 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 1–18, 24, 27, and 33 of the ’259 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 “systems and *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 ¶¶ 74-75. Shore-I teaches a non-browser based application (*e.g.*, the PDA Pay and eTicket/mewallet application), with a graphical user interface and icon, in the memory of a mobile

device (*e.g.*, PDA and/or PayStick) that includes memory, a display, processor, radio interface, and wireless (Wi-Fi) interface, and supports at least one of the GSM and CDMA protocols, as explained below. Ex. 1005, ¶¶ 0008, 0061, 0080, 0452-0453.

(1) A “Mobile Device”

Shore-I teaches a “mobile device,” such as “palm computers, intelligent handheld cellular and other wireless telephones, and other personal handheld electronic devices.” *Id.* ¶¶ 0008, 0083; Fig. 2. Shore-I’s mobile device serves “as a central short-term repository and communications device for all, or a portion, of the daily financial transactions a user may want to complete” (*id.* ¶ 0061) and is configured to “hold electronic authorization certificates, or eTickets.” *Id.* ¶ 0064. For example, Shore-I teaches PDA 700. *Id.* ¶ 0061; Fig. 1a. Shore-I also teaches a “Directed Purpose” device, such as a “PayStick,” which “store[s], transmit[s], and process[es] electronic transactions [], such as electronic money, electronic tickets, and other electronic transactions.” *Id.* ¶¶ 0319, 327.

Shore-I teaches that the mobile device includes memory, a display, a processor, a radio interface, and a wireless fidelity (Wi-Fi) interface that supports voice and data interactions through a first wireless communication channel device using at least one of GSM and CDMA. Ex. 1003 ¶ 78. For example, Shore-I teaches that the PDA includes hardware components such as “RAM (Random Access Memory),” “ROM (Read Only Memory),” an “LCD (Liquid Crystal Display) Screen

or other display device,” as well as “a CPU (Central Processing Unit) or other computer device, including microprocessors, microcontrollers, and the like.” Ex. 1005, ¶ 0080. Shore-I also teaches that the mobile devices support “infrared, Bluetooth, Radio Frequency (RF), or other short range wireless data communications” (*id.* ¶ 0008) as well as a “wireless interface 705 through which the PDA would communicate with other devices distributed throughout the user’s environment.” *Id.* ¶ 0061; *see also* ¶ 0080 (describing “wireless modem 11b and modem driver 11a.”) Shore-I also teaches that the mobile device supports voice and data interactions through a communications protocol such as GSM or CDMA. Ex. 1005, ¶ 0082 (“[a] wireless mobile phone enabled to perform functions according to the present invention could be of any size or make. Its operating protocol could be *CDMA*, TDMA, *GSM* or any other digital protocol.”); Ex. 1003 ¶ 79.

(2) A “Non-Browser Based Application”

Shore-I teaches a “non-browser based application.” Ex. 1003 ¶¶ 80-88. 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. For example, the PDA Pay application includes a graphical user interface that corresponds to a specific screen or area of the application and permit the user to interact with the PDA Pay and eTicket software and purchase eTickets. Ex. 1005, 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. Shore-I further teaches that the application includes a graphical icon. For example, Shore-I explains 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/mewalletTM System *icon 501*.”).

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 ¶ 83. 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 ¶ 83. A POSITA would have understood that the PDA Pay application is non-browser based 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 does not connect to the internet and does not use internet browsers. Ex. 1005, ¶¶ 0319, 0341; Fig. 20a; Ex. 1003, ¶ 83.

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 each of the PDA Pay and eTicket/mewallet application and the Microwallet application are “*operable offline or without a network connection.*” Ex. 1002, 241. 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. 1002, 241 (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, ¶ 85. 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 ¶ 86.

Second, Shore-I’s 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. 1011, 399. 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 Owners during prosecution as hallmarks of a browser. Ex. 1003, ¶ 88. 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 ¶ 88. 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, ¶ 88. 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.* ¶ 88.

(3) *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 ¶ 89.

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. 1011, 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 ¶ 91.

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. 1011, 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. 1011, 653-654.

(4) 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 ¶¶ 93-102. Combining Shore-I and Angelica would have

involved routine implementation in software only that would have posed no technical risks given their 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 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 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 ¶ 95.

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 ¶ 97. 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. *Id.* ¶ 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 '259 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 ¶ 102.

c. Element 1.2

Shore-I alone or in combination with Angelica renders obvious Element 1.2. Ex. 1003, ¶¶ 103-108. Shore-I teaches sending a list of products (e.g., electronic tickets or “eTickets”) from a remote management server (e.g., Immtec, shown in blue in annotated Figure 1a) to a non-browser based application (e.g., the PDA Pay and eTicket/mewallet application, installed on PDA 700, shown in green) for display using that application. Ex. 1005, Fig. 1a.

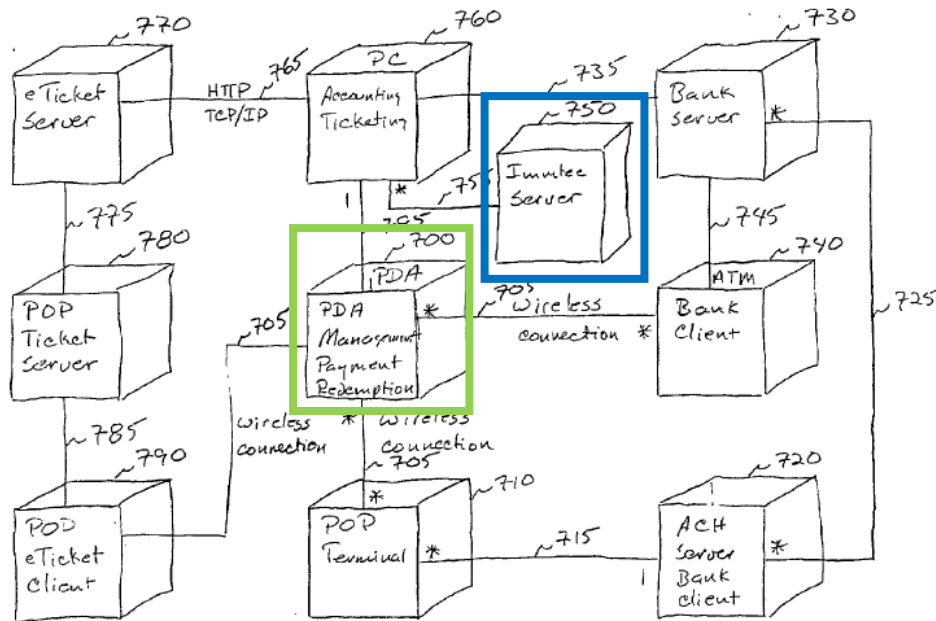


FIG. 1a Overview of the PDA Pay network

(1) A “Remote Management Server”

Shore-I teaches a “remote management server” called “Immtec” (or “Immtec Server Host”), which 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.

(2) Receiving ... a list of products ...”

Shore-I teaches receiving a list of products (*e.g.*, eTickets) from a remote management server (*e.g.*, Immtec) at a non-browser based application (*e.g.*, the PDA Pay and eTicket/mewallet application) for display using the non-browser based application. 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.” Ex. 1005, ¶¶ 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:

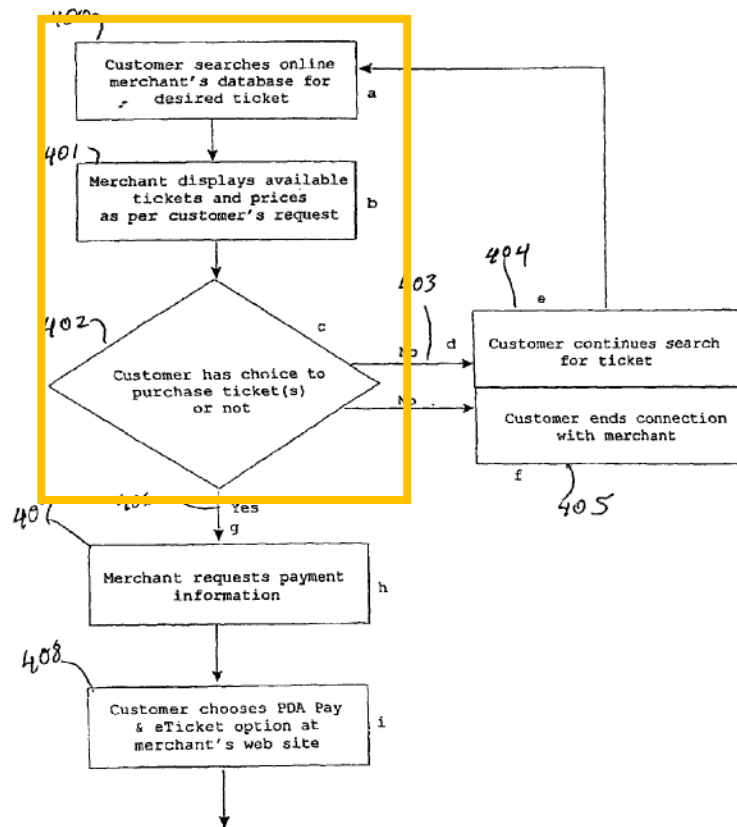


FIG. 12a

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 ¶ 106. 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 Immtec 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 ¶ 106.

Further, Shore-I teaches that a list of eTicket options is sent from the management server (*e.g.*, Immtec) to the PayStick, which an example of a mobile device configured with the PDA Pay application and capable of performing payment transactions without Internet connection. 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.*, Immtec) 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.*, Immtec Server) would send the list of eTickets to the PayStick through the POS interface. Ex. 1003 ¶ 107; *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.”)

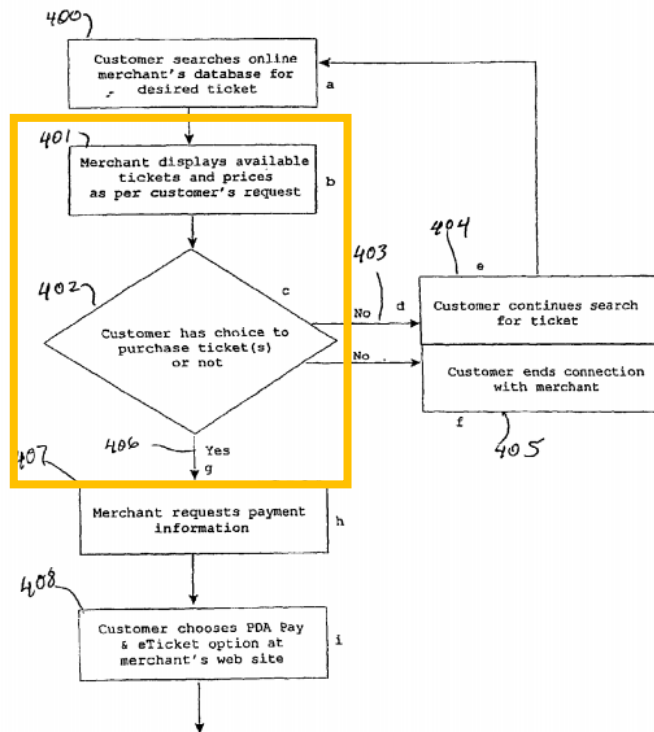
Moreover, Shore-I teaches that the steps described above in connection with the PayStick could be performed in the same way on the PDA mobile device. *Id.* ¶ 0341 (“[i]t will be understood by someone with ordinary skill in the art that the options described [in connection with the PayStick] would apply equally to a System-enabled PDA/wireless phone device without departing from the spirit of the invention.”).

d. Element 1.3

Shore-I alone or in combination with Angelica renders obvious Element 1.3. Ex. 1003 ¶¶ 109-113. 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) using the application on a PDA or a PayStick device through user input via the mobile device's display.

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 user. *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 (“[i]f 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. For example, 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 ¶ 112. 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 that 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. Ex. 1005, ¶ 0341.

e. Element 1.4

Shore-I alone or in combination with Angelica renders obvious element 1.4. Ex. 1003, ¶¶ 114-115. Shore-I teaches sending from the non-browser based application generated screen (*e.g.*, PDA Pay and eTicket/mewallet application) the identification of one or more products (*e.g.*, eTickets) to the remote management server (*e.g.*, Immttec server that interfaces with and administer the ticketdownload.com system). Ex. 1005, ¶¶ 0185-188, 0101. For example, Figure 1f depicts the “communication events of an eTicket creation and transfer between exemplary software components” of one embodiment described in Shore-I. *Id.* ¶ 0075. As shown in Figure 1f below, a request for an eTicket is sent to the Immttec server 1060, which would then “generate and send 1063 the eTicket” to the user. *Id.*

¶ 0075; Fig. 1f. A POSITA would have understood that the identification of an eTicket is sent from the PDA Pay and eTicket/mewallet application and received at the Immtec server which is responsible for generating and distributing the eTickets to the users. Ex. 1003 ¶¶ 114-115.

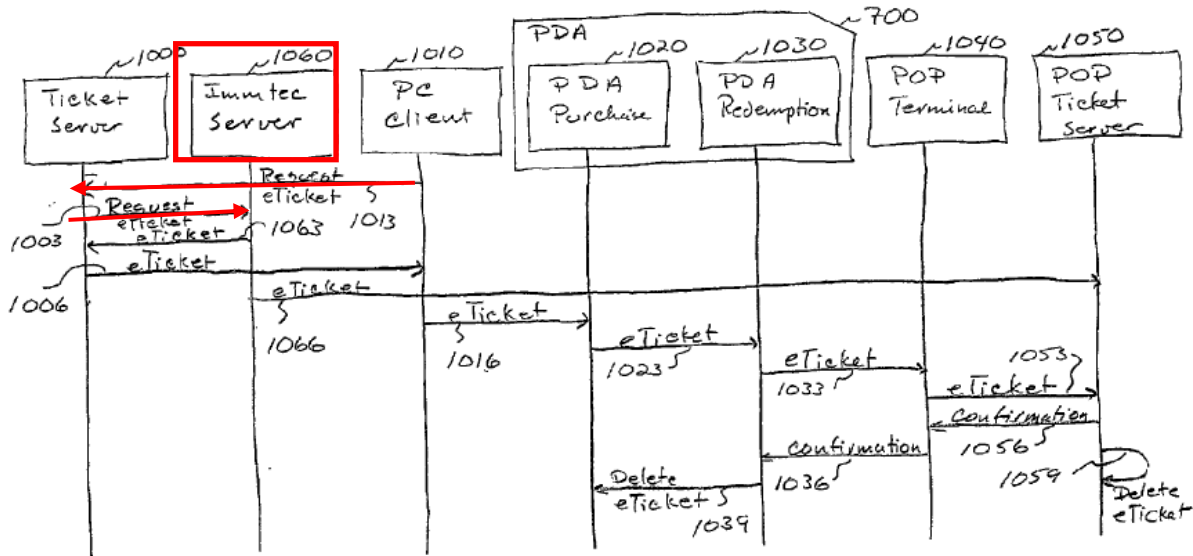


FIG. 1f Communication Sequence when using a PDA device as an eTicket carrier

f. Element 1.5

Shore-I alone or in combination with Angelica renders obvious Element 1.5. Ex. 1003, ¶¶ 116-117. 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.

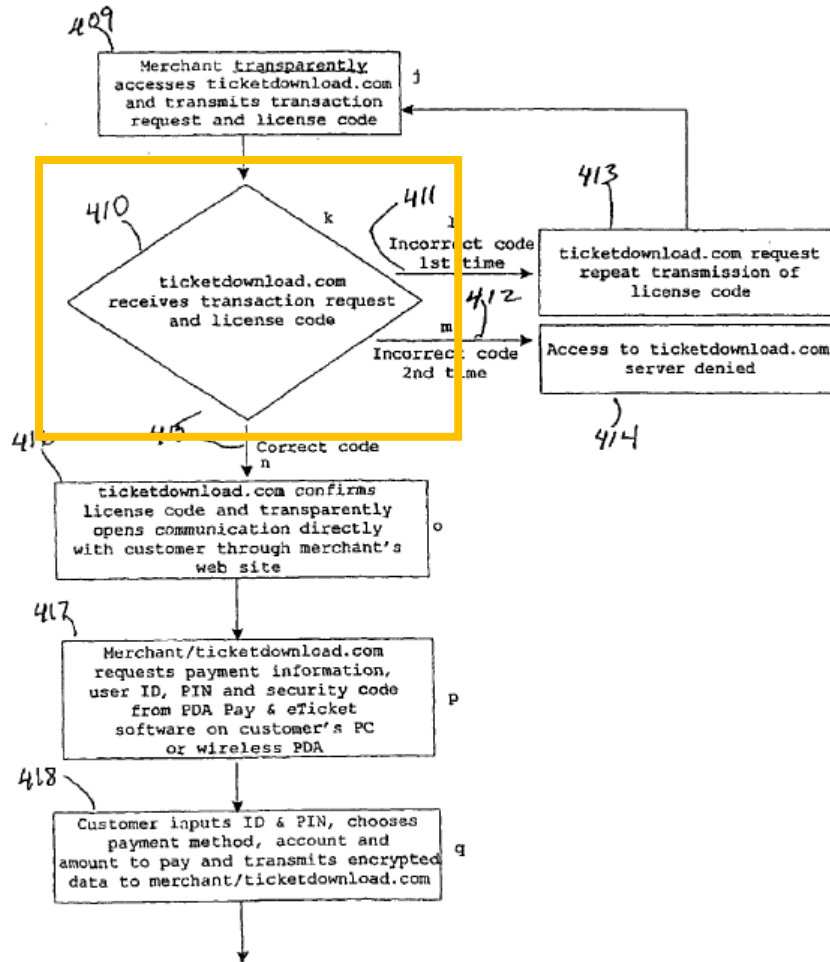


FIG. 12b

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.d (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.

g. Element 1.6

Shore-I alone or in combination with Angelica renders obvious Element 1.6. Ex. 1003, ¶ 118-119. Shore-I teaches sending 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) on a mobile device (*e.g.*, PDA and/or PayStick) to the remote management server (*e.g.*, Immtec server).

As explained above, Shore-I teaches that an identification and selection of an eTicket by a user and a request to purchase the eTicket is sent from the PDA Pay application on the mobile device (PDA and/or PayStick) to the Immtec server. Ex. 1005, ¶ 0101, 0185-0188; Figs. 12a-d, 1f (showing a “request” for an eTicket sent to the Immtec Server 1060).

A POSITA would have understood that a transaction purchase request for an eTicket, which includes the identification and selection of an eTicket, is sent from the PDA Pay and eTicket/mewallet application on the mobile device and received at the Immtec server that is responsible for generating and distributing the eTickets to the users. Ex. 1003 ¶ 119.

h. Element 1.7

Shore-I alone or in combination with Angelica renders obvious Element 1.7. Ex. 1003, ¶¶ 120-121. 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* 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.***”).

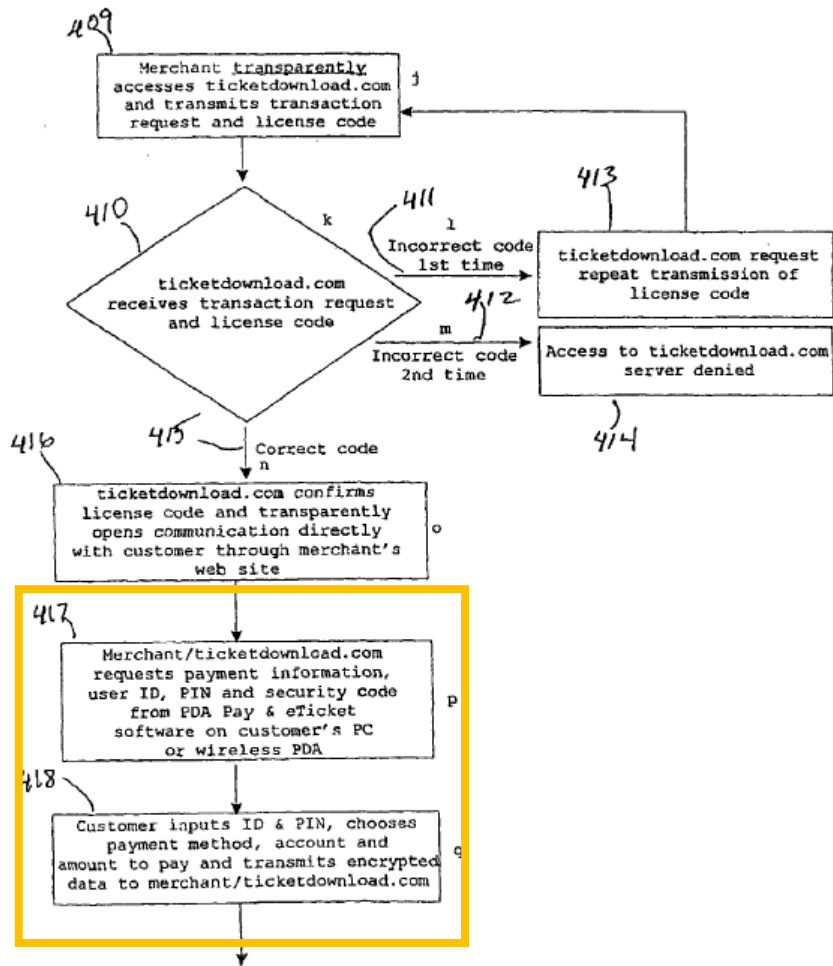
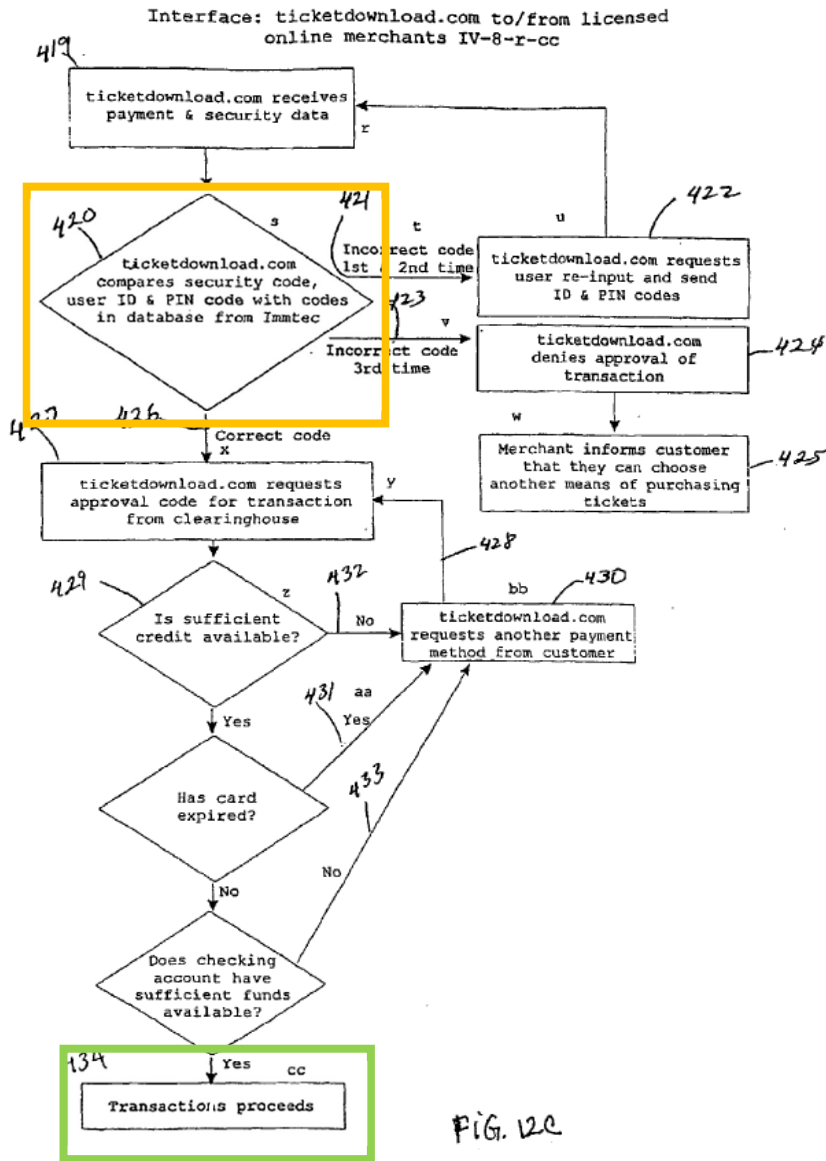


FIG. 12b

i. Element 1.8

Shore-I renders obvious Element 1.8. Ex. 1003, ¶¶ 122-123. Shore-I teaches sending from the non-browser based application generated screen (e.g., PDA Pay and eTicket/mewallet application screen) the user input login information (e.g., User ID and/or PIN) to the remote management server (e.g., Immtec server). As illustrated in annotated Fig. 12c below, Shore-I teaches that the user's login

information is received and authenticated by the management server (*e.g.*, Immtec server) by “compar[ing] the security data with security data in the System (*i.e.*, Immtec) database 420.” Ex. 1005, ¶ 0193. If the data matches what is saved, “the System would allow the transaction to proceed 434.” *Id.* ¶ 0197, Fig. 12c (annotated in green).



j. Element 1.9

Shore-I renders obvious Element 1.9. Ex. 1003, ¶¶ 124-127. First, Shore-I teaches receiving information authenticating the user associated with the user input login information (e.g., User ID and/or PIN) from the remote management server (e.g., Immttec server). Ex. 1005, ¶¶ 0193, 0197, Fig. 12c (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).

Second, Shore-I teaches the remote management server receives a transaction verification from a transaction server (e.g., clearinghouse system or ACH server) indicating the transaction has processed. For example, Shore-I teaches a “transaction server,” e.g., “Automated Clearing House (ACH) server 720,” (or clearinghouse system) annotated in red in Figure 1a below.

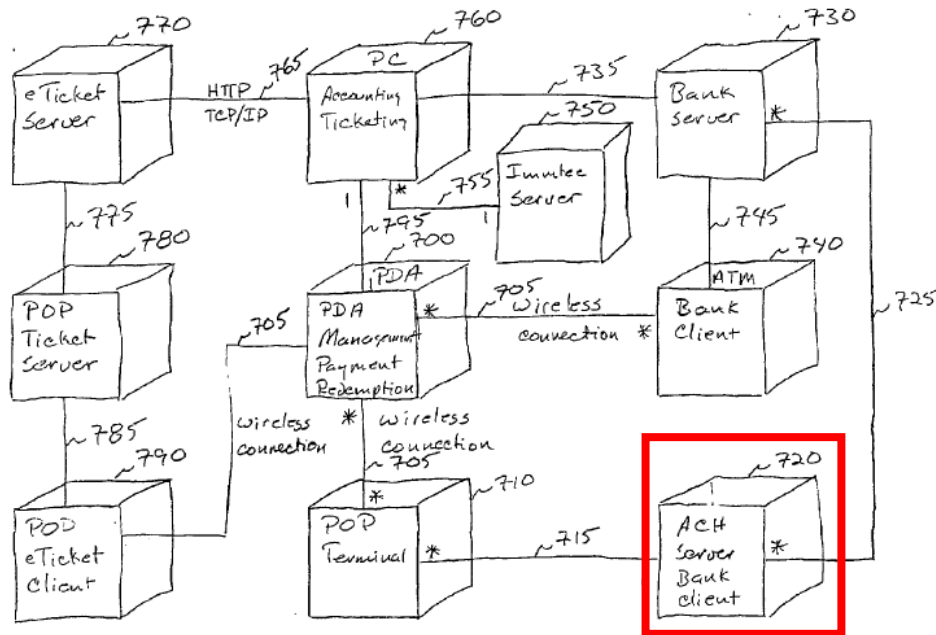


FIG. 1a Overview of the PDA Pay network

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.”

Id. ¶ 0180; *see also* ¶ 0065 (noting that the “Automated Clearing House (ACH) server 720,” is also connected to the Immttec server 750); Fig. 1d. Shore-I teaches that the “Server System” (*e.g.*, Immttec 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.” *Id.* ¶ 0358. If sufficient funds are available, the clearinghouse “approves the transaction, such as by transmitting an approval code” to Immttec. *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 Immttec 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.

Third, Shore-I teaches that a payment method (*e.g.*, credit or debit card) that corresponds to the identification code associated with the user is stored at the remote

management server. For example, Shore-I 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 (“The Server System software would include, among other things: ... users name, ID & PIN database, users unique security codes, users bank accounts data, users credit card accounts data, users brokerage accounts data, other financial accounts data, users personal data, users customer specific receipt advertising data.”). 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 ¶ 127; 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, and would transmit this information to the Merchant/ticketdownload.com via an Internet interface or wireless modem interface 418.”)

k. Element 1.10

Shore-I renders obvious Element 1.10. Ex. 1003, ¶¶ 128-131. Shore-I teaches receiving at the mobile device (*e.g.*, PDA or PayStick device) one or more products (*e.g.*, eTickets) from the remote management server (*e.g.*, Immtec server).

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.

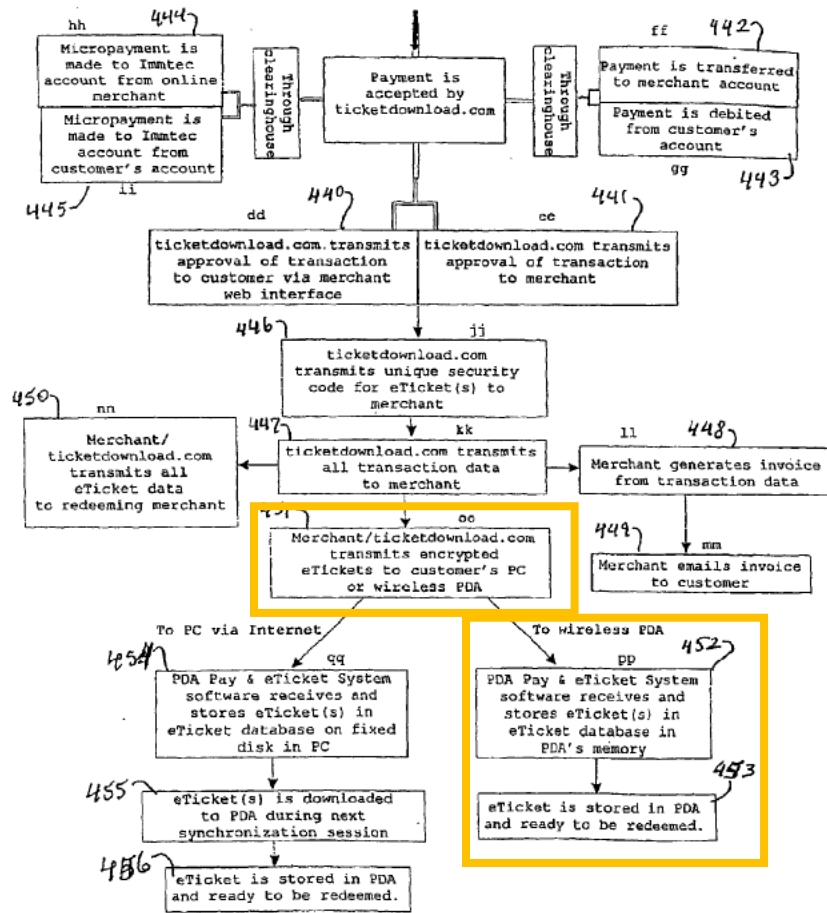


Fig. 12e

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 *Immttec server*, which corresponds to the *management server*. For example, as shown in annotated Fig. 1f, after a request for an eTicket is received at the Immttec server 1060, the *Immttec server* would “generate and send 1063 the eTicket” to the user.

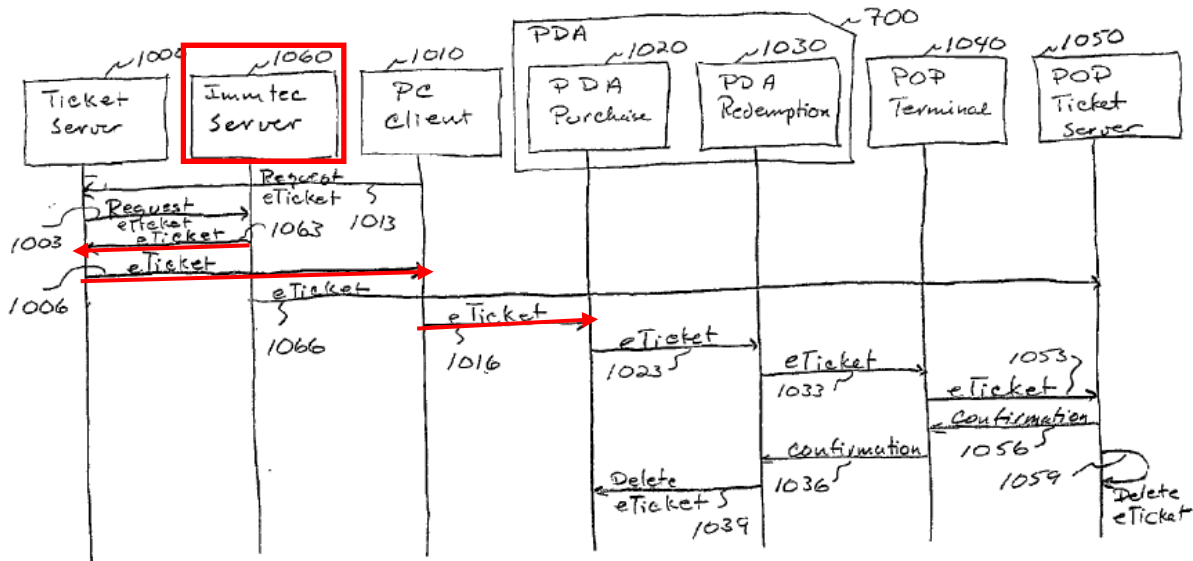


FIG. 1f Communication Sequence when using a PDA device as an eTicket carrier

Id. ¶ 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 ¶ 131.

2. Dependent Claim 2

As discussed above, Shore-I alone or in combination with Angelica renders obvious claim 1. Shore-I further discloses the additional limitation of claim 2. Ex. 1003, ¶ 132. Shore-I teaches that the payment method is a credit card or debit 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, and would transmit this information” to complete a transaction to purchase an eTicket).

3. Dependent Claim 3

As discussed above, Shore-I alone or in combination with Angelica renders obvious claim 1. Shore-I further discloses the additional limitation of claim 3. Ex. 1003, ¶ 133. Shore-I teaches that the user input login information includes a “*fingerprint . . . and/or biometric data* 129n.” Ex. 1005, ¶¶ 0118; 0230-232. Shore-I also teaches that “biometric interface software would be provided to read the user’s fingerprint or optical information on the screen of the PDA.” *Id.* ¶¶ 0119-0120; *see also id.* ¶ 0327, 0373, 0421-422.

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, ¶ 134. Shore-I teaches that the user input login information includes “a *personal identification number.*” Ex. 1005 ¶ 0126; *see also* ¶¶ 0166-0167 (“... user to input the user ID and/or *PIN* 302.”); ¶ 0191.

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, ¶¶ 135-136. Shore-I teaches that a “digital artifact” (*e.g.*, an eTicket, a transaction approval, receipt, advertisement, and/or digital transaction data used for

generating an invoice/receipts) is sent to the non-browser based application for display. 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; Figs. 12d, 1f.

Shore-I further teaches that a transaction confirmation, a record of the transaction, and digital transaction data for generating an invoice/receipt are sent to the mobile device. *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); ¶ 0146; Figs. 10a-c (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.

6. Dependent Claim 6

As discussed above, Shore-I alone or in combination with Angelica renders obvious claims 1 and 5. Shore-I further discloses the additional limitation of claim

6. Ex. 1003, ¶ 137. As explained above (claim 5), Shore-I teaches that the digital artifact is a ticket (e.g., “eTicket”), and/or a receipt and/or content (e.g., a transaction approval, and/or digital transaction data used for generating an invoice/receipts), and/or advertisement. Ex. 1005 ¶¶ 0059, 0064, 0072, 0146, 0199-200, 0333.

7. Independent Claim 7

a. Element 7[Pre]

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

b. Element 7.1

See Element 1.1.

c. Element 7.2

See Element 1.1.

d. Element 7.3

See Element 1.2.

e. Element 7.4

See Element 1.3.

f. Element 7.5

See Element 1.6.

g. Element 7.6

See Element 1.8.

h. Element 7.7

See Element 1.9.

i. Element 7.8

See Element 1.10.

j. Element 7.9

See Element 1.1.

k. Element 7.10

See Element 1.3.

l. Element 7.11

See Elements 1.3, and 1.5.

m. Element 7.12

See Element 1.7.

8. Dependent Claim 8

Shore-I renders obvious claim 8. *See* Claim 2.

9. Dependent Claim 9

Shore-I renders obvious claim 9. *See* Claim 3.

10. Dependent Claim 10

Shore-I renders obvious claim 10. *See* Claim 4.

11. Dependent Claim 11

Shore-I renders obvious claim 11. *See* Claim 5.

12. Dependent Claim 12

Shore-I renders obvious claim 12. *See* Claim 6.

13. Independent Claim 13

a. Element 13[Pre]

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

b. Element 13.1

See Element 1.1.

c. Element 13.2

See Element 1.2.

d. Element 13.3

See Element 1.3.

e. Element 13.4

See Element 1.4.

f. Element 13.5

See Element 1.5.

g. Element 13.6

See Element 1.6.

h. Element 13.7

See Element 1.7.

i. Element 13.8

See Element 1.9.

j. Element 13.9

See Element 1.9.

k. Element 13.10

See Element 1.10.

14. Dependent Claim 14

As discussed above, Shore-I alone or in combination with Angelica renders obvious claim 1. Shore-I further discloses the additional limitation of claim 14. Ex. 1003, ¶ 167. Shore-I teaches that the PDA Pay and eTicket/mewallet software would include “programming instructions” that during each transaction would “cause the transmission of a request [] to the mewallet™ system (and/or to [] another system) for possible Microwallet™ credits ... such as a credit or ***discount coupon.***” Ex. 1005, ¶ 0478; *see also* ¶ 0327 (the PayStick “would provide the following functions . . . receives, stores, retrieves, transmits, and updates . . . electronic ***coupons***”). A POSITA would have understood that by including “programming instructions” in the mobile device’s software, the software is configured to automatically redeem coupons during each transaction because Shore-I describes it as a built-in functionality of the software that does not require a specific action by the user. *Id.*; *see also* ¶ 0327 (describing selection of payment method without user input); Ex. 1003 ¶ 167.

15. Dependent Claim 15

As discussed above, Shore-I alone or in combination with Angelica renders obvious claim 5. Shore-I further discloses the additional limitation of claim 15 as

corrected.⁴ Ex. 1003, ¶¶ 168-170. Shore-I teaches that the PDA Pay and eTicket/mewallet software enables the user to access a “digital artifact,” such as an eTicket, when there is no network connection. For example, Shore-I explains that “[s]ystem 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 interface, such as infrared, that communicates with “the infrared interface at the redeeming merchant’s point of purchase device.” *Id.* ¶ 0203. As explained in element 1.1 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* . . .”).

⁴ On August 11, 2021, Patent Owners filed a request for Certificate of Correction to change “[t]he method of claim 1,” recited in claim 15, to “[t]he method of claim 5.” Ex. 1002, at 1-10. Although the Patent Office has not yet issued the requested Certificate of Correction, Petitioner refers herein to the corrected version of claim 15.

A POSITA would therefore have understood that a user can access the eTicket—which is locally stored on the mobile device in the PDA Pay application—and redeem it without a network connection by using a short-range communication interface (*e.g.*, infrared). Ex. 1003 ¶ 169. 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 ¶ 170.

16. Dependent Claim 16

Shore-I renders obvious claim 16. *See* Claim 14.

17. Dependent Claim 17

Shore-I renders obvious claim 17. *See* Claim 15.

18. 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, ¶ 173. As explained above (Element 1.1, and claim 15) Shore-I teaches that a user can access and redeem an eTicket stored on the mobile device when there is no network connection. As such, Shore-I teaches that the PDA Pay application generated screen is “operative” even if the PDA and/or PayStick is not connected to a network, such that eTickets may be accessed and redeemed using short-range communication interfaces, such as infrared, that do not require network connection. Ex. 1005, ¶¶ 0163, 0203, 0319, 0341, 0351, 0378-0379; Figs. 12a-d, 19a, 20a.

19. Dependent Claim 24

As discussed above, Shore-I alone or in combination with Angelica renders obvious claim 1. Shore-I further discloses the additional limitation of claim 24. Ex. 1003, ¶ 174. Shore-I teaches that the Immtec server is configured to store a single identification code (*e.g.*, a code associated with “CUSTOMER entity”) associated with a user for a variety of mobile devices. Ex. 1005, ¶ 0430 (“CUSTOMER entity” is “a repository for holding customer information,” including “CUSTOMER ID 3820-1” or “USERNAME 3820-16” and can be used for “holding multiple ACCOUNTS and possibly, *multiple devices.*”) A POSITA would have understood that by storing a single identification code associated with the user for a variety of the user’s mobile devices, the remote management server (*e.g.*, Immtec server) scales, because it allows registering additional mobile devices with the server. Ex. 1003 ¶ 174.

20. Dependent Claim 27

Shore-I renders obvious claim 27. *See* Claim 18.

21. Dependent Claim 33

Shore-I renders obvious claim 33. *See* Claim 24.

B. Ground II: Claims 23 and 32 Are Rendered Obvious by Shore-I in Combination with Angelica

1. Dependent Claim 23

Shore-I in combination with Angelica renders obvious claim 23. Ex. 1003, ¶¶ 178-180. 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:



Ex. 1006, 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, and such a functionality was well-known at the time of the '259 Patent. Ex. 1003, ¶ 179. 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 '259 Patent by combining the teachings of Shore-I and Angelica, as explained in Section X.A.1.b.(4) and in Dr. Chatterjee's declaration. Ex. 1003 ¶¶ 93-102.

2. Dependent Claim 32

Shore-I in combination with Angelica renders obvious claim 32. *See* Claim 23.

C. Ground III: Claims 19 and 28 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 ¶¶ 93-102. 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 ¶¶ 182-186. Combining Shore-I, Angelica, and Mazur 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 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 ¶ 183.

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 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) 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 ¶ 184; 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-I). *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 that 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). Ex. 1007, ¶ 0052.

A POSITA would also have a reasonable expectation of success in arriving at the alleged invention recited in the Challenged Claims of the ’259 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, ¶ 186.

2. Dependent Claim 19

Shore-I in combination with Angelica and Mazur renders obvious claim 19. Ex. 1003, ¶ 187. 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 '259 Patent. Ex. 1003, ¶ 188.

3. Dependent Claim 28

Shore-I in combination with Angelica and Mazur renders obvious claim 28.

See Claim 19.

D. Ground IV: Claims 20, 21, 29 and 30 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 ¶¶ 93-102. 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 ¶¶ 190-194. 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 ¶ 192. 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 ¶¶ 192-193.

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 ¶ 192. 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 ¶ 192. 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 ¶ 192. 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 '259 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 ¶ 194.

2. **Dependent Claim 20**

Shore-I in combination with Angelica and Knight renders obvious claim 20. Ex. 1003, ¶¶ 195-198. 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 ’259 Patent. Ex. 1003 ¶¶ 197-198.

3. Dependent Claim 21

Shore-I in combination with Angelica and Knight renders obvious claim 21. Ex. 1003, ¶¶ 199-200. Knight teaches that the software client is “regularly downloading and updating files” and “[w]hen an error occurs” the software uses the

“ExceptionConfig” object to “automatically retry the event” and ask the server to retransmit the file. Ex. 1008, 27:5-30, 28:9-19 (describes using different objects to “retry loading the file from the server”). Knight further teaches that if the software client only partially receives a file, it makes a request to the server to retransmit the rest of the file. *Id.* 80:25-30; *see also id.* 81:15-27 (teaching the use of a Nak signal to tell the server that there was a problem with transmission of the file).

4. Dependent Claim 29

Claim 29 is indefinite on its face under 35 U.S.C. § 112 because it recites a “non-browser based application generates [*sic*] if it has not received...,” yet the claim fails to indicate what the application “generates.” To the extent Patent Owners argue that a POSITA would understand the claim to require that the application generates an “alert,” however, Shore-I in combination with Angelica and Knight renders this limitation obvious for the same reasons discussed above regarding Claim 20.

5. Dependent Claim 30

Claim 30, which depends on claim 29, is indefinite on its face for the reasons explained in claim 29 above. To the extent Patent Owners argue that claim 29 is not indefinite, however, Shore-I in combination with Angelica and Knight renders claim 30 obvious for the same reasons discussed above regarding Claim 21.

E. Ground V: Claims 22 and 31 are Rendered Obvious by Shore-I in Combination with Angelica and Shore-II.

1. **Dependent Claim 22**

Shore-I in combination with Angelica and Shore-II renders obvious claim 22. 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 ... time and *location*, are transmitted to the Immttec CSRA system and stored in the customer's data profile.”), ¶ 0196 (“Immttec 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, ¶ 203.

As Dr. Chatterjee explained, a POSITA would have been motivated to combine the teachings of Shore-I with the teachings of Angelica. Ex. 1003 ¶ 93-102. A POSITA would have been motivated to further combine the teachings of Shore-I and Angelica with the teachings of Shore-II. Ex. 1003 ¶ 204. Shore-I and Shore-II relate to the same invention—the Immttec/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 Immttec

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 ¶ 204. 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 ’259 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 31

Shore-I in combination with Angelica and Shore-II renders obvious claim 31.

See Claim 22.

XI. SECONDARY CONSIDERATIONS

Samsung is unaware of any evidence of alleged secondary indicia that would support non-obviousness of the '259 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 14-15.⁵

XIII. CONCLUSION

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

⁵ 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. 10,699,259

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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 13,824 words. Counsel has relied upon the word count feature provided by Microsoft Word.

/s/ Todd M. Friedman
Todd M. Friedman

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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