

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD., AND
SAMSUNG ELECTRONICS AMERICA, INC.,

Petitioner,

v.

PAYGEO, LLC,

Patent Owner.

Case IPR2025-01554
Patent No. 11,087,307

PETITION FOR *INTER PARTES* REVIEW

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PETITIONER’S EXHIBIT LIST

Exhibit	Description
Ex-1001	U.S. Patent No. 11,087,307 B2 to Ballout (“the ’307 patent”)
Ex-1002	File History for U.S. Patent No. 11,087,307 B2
Ex-1003	Declaration of Stu Lipoff (“Lipoff”)
Ex-1004	Curriculum Vitae of Stu Lipoff
Ex-1005	U.S. Patent Application Publication No. 2010/0078472 A1 to Lin et al. (“ <i>Lin</i> ”)
Ex-1006	U.S. Patent Application Publication No. 2008/0010192 A1 to Rackley III et al. (“ <i>Rackley</i> ”)
Ex-1007	U.S. Patent Application Publication No. 2007/0255652 A1 to Tumminaro et al. (“ <i>Tumminaro</i> ”)
Ex-1008	Apple Inc., iPhone User Guide For iPhone OS 3.1 Software (2009)
Ex-1009	U.S. Patent Application Publication No. 2012/0267432 A1 to Kuttuva (“ <i>Kuttuva</i> ”)
Ex-1010	Stamatis Karnouskos, <i>Mobile Payment: A Journey Through Existing Procedures and Standardization Initiatives</i> , IEEE Communications Surveys & Tutorials, Vol. 6, No. 4, pp. 44-66 (2004)
Ex-1011	Cynthia Merritt, Mobile Money Transfer Services: The Next Phase in the Evolution in Person-to-Person Payments, Retail Payments Risk Forum White Paper, Federal Reserve Bank of Atlanta (Aug. 2010)
Ex-1012	U.S. Patent No. 8,001,045 B1 to McClinton (“ <i>McClinton</i> ”)

I. PRELIMINARY STATEMENT

Petitioner Samsung Electronics Co., Ltd., and Samsung Electronics America, Inc. (collectively, “Samsung”), requests *inter partes* review of U.S. Patent No. 11,087,307 (Ex-1001) and cancellation of claims 1-14.

The ’307 patent claims a platform that enables members to conduct transactions in a mobile telecommunications environment. Ex-1001, Abstract; claim 1. The ’307 patent expressly admits that many of the claimed features—facilitating secure wireless transactions (Ex-1001, 2:12-14); transmitting payments via linked accounts (Ex-1001, 2:15-22); wirelessly communicating payment instructions, including the payment source, amount, payee identification information, and payment method, to effect a payment without any action by a payee (Ex-1001, 2:29-43)—were known. The alleged improvement—providing “a platform that enables members to transfer, receive, or otherwise exchange cash and digital currency in various [forms] in a mobile telecommunications environment” (Ex-1001, 1:45-51)—was also known. *Lin*, for example, discloses a system enabling mobile device payments using credit card accounts, bank accounts, or other forms of digital assets. *Lin*, [0115].

As detailed below and in the supporting declaration of Stu Lipoff (“Lipoff”) (Ex-1003), the challenged claims are unpatentable based on the grounds presented. Lipoff, ¶¶1-4. The Board should institute review and cancel all challenged claims.

II. STATE OF THE ART

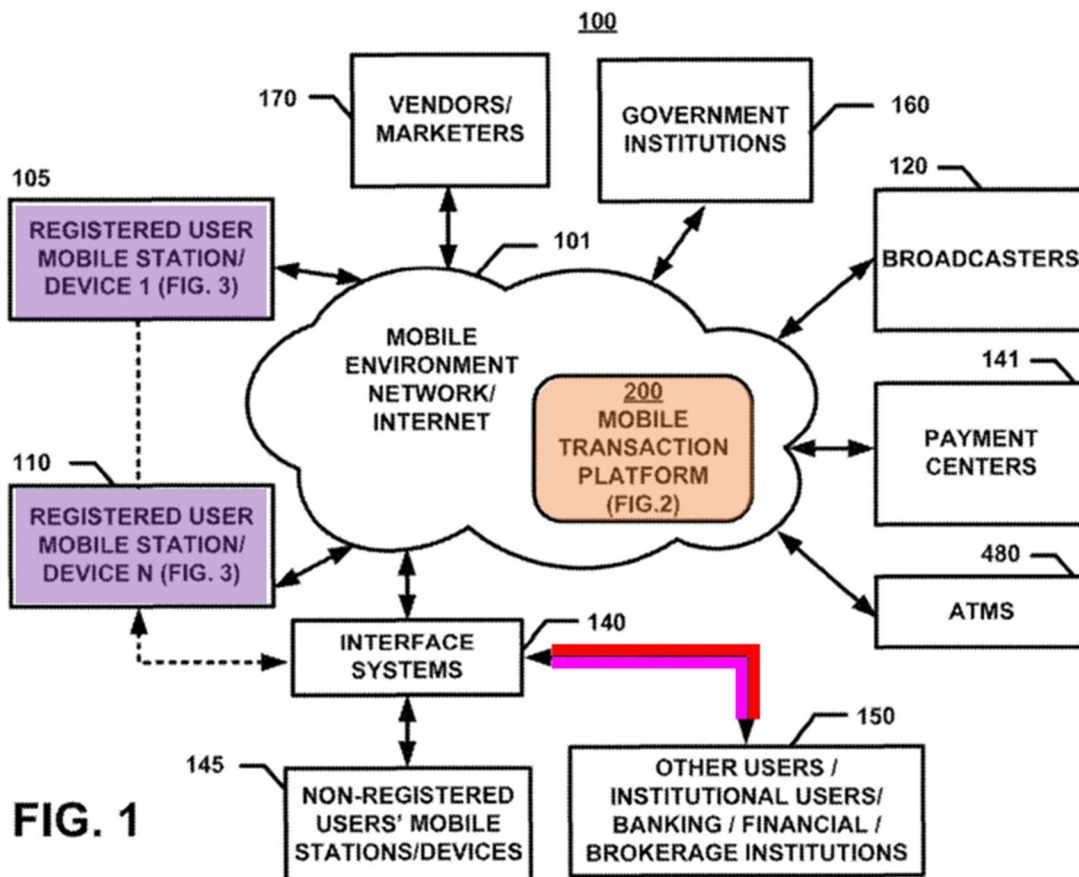
The ability to make electronic payments using mobile devices was known in the art well before the '307 patent's earliest alleged priority date of July 18, 2011. Lipoff, ¶41; Ex-1001, 2:12-49; *Lin*, [0009]; *Rackley*, [0027]; *Tumminaro*, [0021]; Ex-1009, [0023]; Ex-1010, 45. As the '307 patent acknowledges, such payment systems enabled users to input payment information, such as the identity of a payee, a payment amount, and a payment source via the user's mobile device. Lipoff, ¶42; Ex-1001, 2:23-43; *Lin*, [0122]; *Rackley*, [0159]; *Tumminaro*, [0304]. This transaction information was then communicated to a financial institution to fulfill the payment request. Lipoff, ¶42; Ex-1001, 2:23-43; *Lin*, [0122]; *Rackley*, [0159]; Ex-1009, [0082]; Ex-1010, 45. Such services thereby enabled payments using bank accounts, credit cards, or other financial accounts via a mobile device. Lipoff, ¶42; Ex-1001, 2:23-43; *Lin*, [0115]; *Rackley*, [0189]; *Tumminaro*, [0136]; Ex-1010, 45. As demonstrated below, allowing registered users to conduct cash-like transactions using a third-party payment source, as represented in the '307 patent, was not an advance over the prior art. Lipoff, ¶42.

III. THE '307 PATENT

The '307 patent discloses a system enabling financial transactions, including the exchange of cash, through a mobile telecommunications environment. Ex-1001, Abstract; Lipoff, ¶¶43-44. As the '307 patent explains, “the present

invention, including the applicable software application, could be integrated with available devices or systems, such as, for example only, Apple Computer, Inc.'s iPhones, iPods, and iPads.” Ex-1001, 24:14-18.

Specifically, the system enables **registered users** to interface with **credit card companies**, **financial institutions**, and **other registered users**:



Ex-1001, Fig. 1, 9:39-56.¹ Via the platform, a registered user may log in (Ex-1001, Fig. 3F, 11:22-30), add payment sources (Ex-1001, Figs. 6B, 7E-7G, 19:19-35), select payment functions (Ex-1001, Fig. 3J, 12:26-30), identify a payee (Ex-1001,

¹ All color and colored annotations in figures have been added.

Fig. 4B, 12:39-48), choose a payment source (Ex-1001, Figs. 4D-4G, 13:3-13), choose a payment amount (Ex-1001, 13:3-13), select the interface associated with the chosen payment source (Ex-1001, Fig. 1, 9:39-56), request payment, and notify another registered user of the payment (Ex-1001, 15:41-50); Lipoff, ¶45.

The purported advantage of the '307 patent arises from the ability of registered users to conduct “cashless transactions,” thus “dispens[ing] with the use of cash.” Ex-1001, 2:44-49, 5:16-20; Lipoff, ¶46. The '307 patent acknowledges that secure mobile financial transactions via interfaces that allow the selection of a payment source, a payment amount, a payee identification, and payment method were known. Ex-1001, 2:12-43.

IV. CLAIM CONSTRUCTION

The Board construes claims under *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). 37 C.F.R. §42.100(b) (2018). Claims are construed only to the extent necessary to resolve a controversy. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017). Here, no terms need construction to resolve the controversy in this forum.²

² Petitioner reserves the right to argue in an appropriate forum that certain limitations in the challenged claims are indefinite and/or lack written description

V. LEVEL OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the art (“POSITA”) would have had at least a bachelor’s degree in electrical engineering, computer science, or a similar field and at least two years of experience in the field of mobile applications and/or related payment systems. Additional relevant work experience can compensate for less education, and vice versa. Lipoff, ¶¶51-52.

VI. STATEMENT OF PRECISE RELIEF REQUESTED

A. Prior Art

U.S. Patent Application Publication No. 2010/0078472 (“*Lin*”; Ex-1005), published April 1, 2010, is prior art to the ’307 patent under 35 U.S.C. §102(a)(1) and (2).

U.S. Patent Application Publication No. 2008/0010192 (“*Rackley*”; Ex-1006), published January 10, 2008, is prior art to the ’307 patent under §102(a)(1) and (2).

support. Petitioner also reserves the right to challenge the priority date here and/or in other proceedings.

U.S. Patent Application Publication No. 2007/0255652 (“*Tumminaro*”; Ex-1007), published November 1, 2007, is prior art to the ’307 patent under § 102(a)(1) and (2).³

Lin, *Rackley*, and *Tumminaro* are analogous art because they are directed to the same field of endeavor as the ’307 patent—mobile financial transaction platforms. Ex-1001, Abstract, 1:45-51; *Lin*, Abstract, [0001]-[0015]; *Rackley*, Abstract, [0013]; *Tumminaro*, Abstract, [0003]. Each is also directed to the same problem as the ’307 patent, for example, eliminating the need for carrying cash and/or wallets. Ex-1001, 3:46-53, 5:16-20; *Lin*, [0005]-[0007]; *Rackley*, [0015]-[0016], [0035]; *Tumminaro*, [0010], [0020].

B. Challenges

Ground	Challenged Claims	35 U.S.C. Section	Prior Art
1	1-14	§103	<i>Lin</i> and <i>Rackley</i> .
2	1-14	§103	<i>Lin</i> , <i>Rackley</i> , and <i>Tumminaro</i> .

³ The ’307 patent includes a continuation-in-part application that was filed after the AIA transition date, making the ’307 patent an AIA patent. To the extent the ’307 patent is determined to be a pre-AIA patent, *Lin*, *Rackley*, and *Tumminaro* are prior art under pre-AIA 35 U.S.C. § 102(a), (b), and (e).

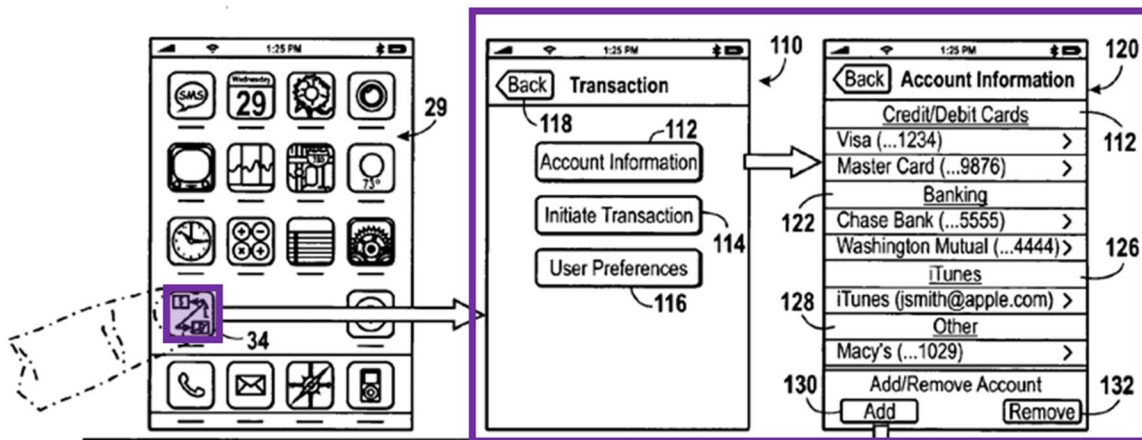
VII. THE CHALLENGED CLAIMS ARE UNPATENTABLE

A. Ground 1: Claims 1-14 Are Rendered Obvious by *Lin* and *Rackley*

The *Lin-Rackley* combination renders obvious claims 1-14. Lipoff, ¶61.

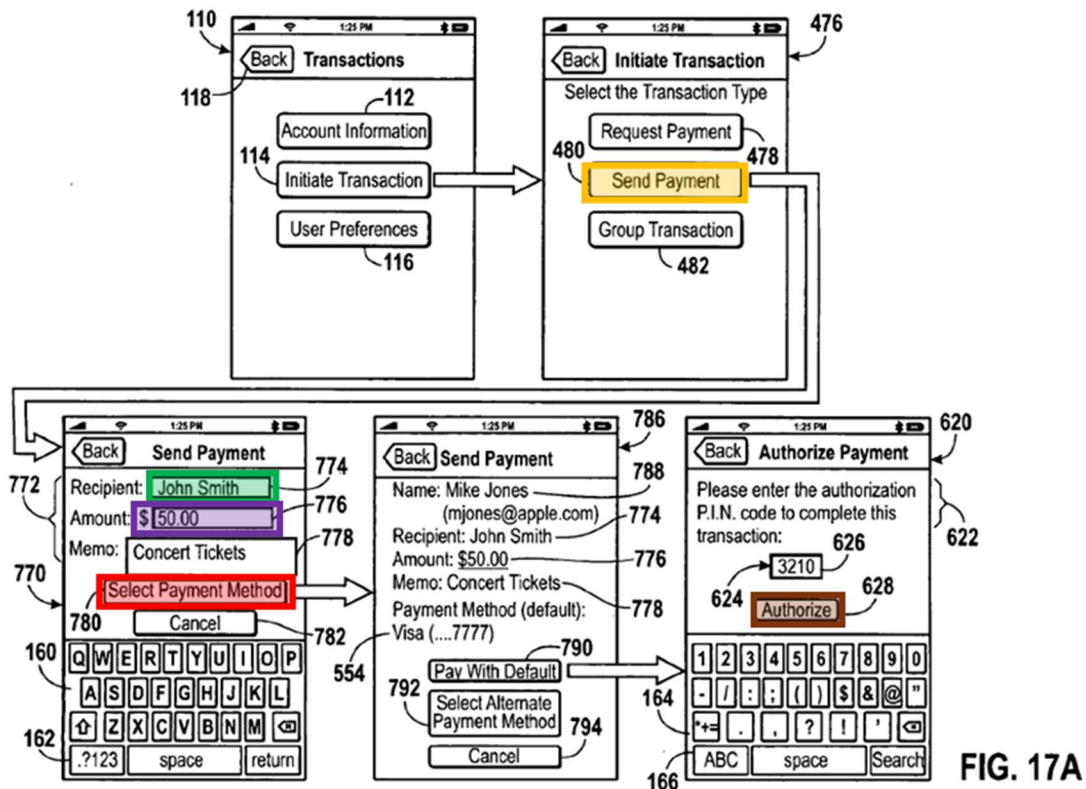
1. Overview of *Lin*

Lin discloses a system for “carrying out peer-to-peer financial transactions using one or more electronic devices.” *Lin*, Abstract. In an exemplary embodiment, *Lin* discloses that its system operates within the Apple™ ecosystem and “the electronic device 10 may be a model of an iPhone®, available from Apple Inc.” *Lin*, [0085]. In *Lin*’s system, these “electronic device[s] ... include one or more **transaction applications** for providing the transaction related techniques and capabilities.” *Id.*



Lin, Fig. 5A (partially reproduced); Lipoff, ¶54. *Lin*’s transaction application provides various user interfaces enabling a user to initiate and receive transactions with users of other devices. *Lin*, [0121]. For example, *Lin* provides a screen 120 (shown above) enabling users to add accounts as payment sources for transactions.

Lin, [0215]. And shown below, *Lin*'s transaction application enables a payor to initiate a transaction using a **send payment function**:

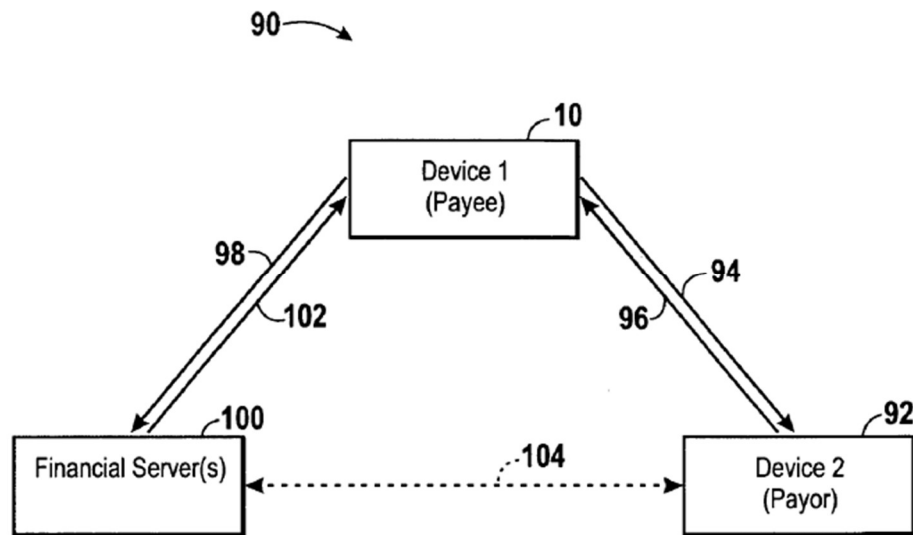


Lin, Fig. 17A; Lipoff, ¶55. The transaction application also allows the payor to **select a payee**, **choose a payment source**, **specify a payment amount**, and **initiate the transaction**. *Lin*, [0245], Fig. 17A. And upon completion, a notification message is displayed to the payee. *Lin*, [0250].

Lin also provides cashless transactions between the payor and payee. *Lin*, [0115] (describing “non-cash accounts ... stored alongside financial accounts”), [0259]-[0262]; Lipoff, ¶56. For example, *Lin*, discloses a transaction process for exchanging “a non-cash asset, in this case, iTunes® credits.” *Lin*, [0260]. These

non-cash accounts are used as a “medium of exchange with at least one party, such as the institution holding or maintaining the non-cash account.” *Lin*, [0115].

When conducting the various transactions, the payee device and payor device communicate transaction information via a short-range interface, such as near field communication (“NFC”). *Lin*, [0011]; Lipoff, ¶57. For example, the payor device may provide transaction information to the payee device via NFC, and the payee device may communicate with one or more financial institutions to carry out the transaction. *Lin*, [0085], [0256].



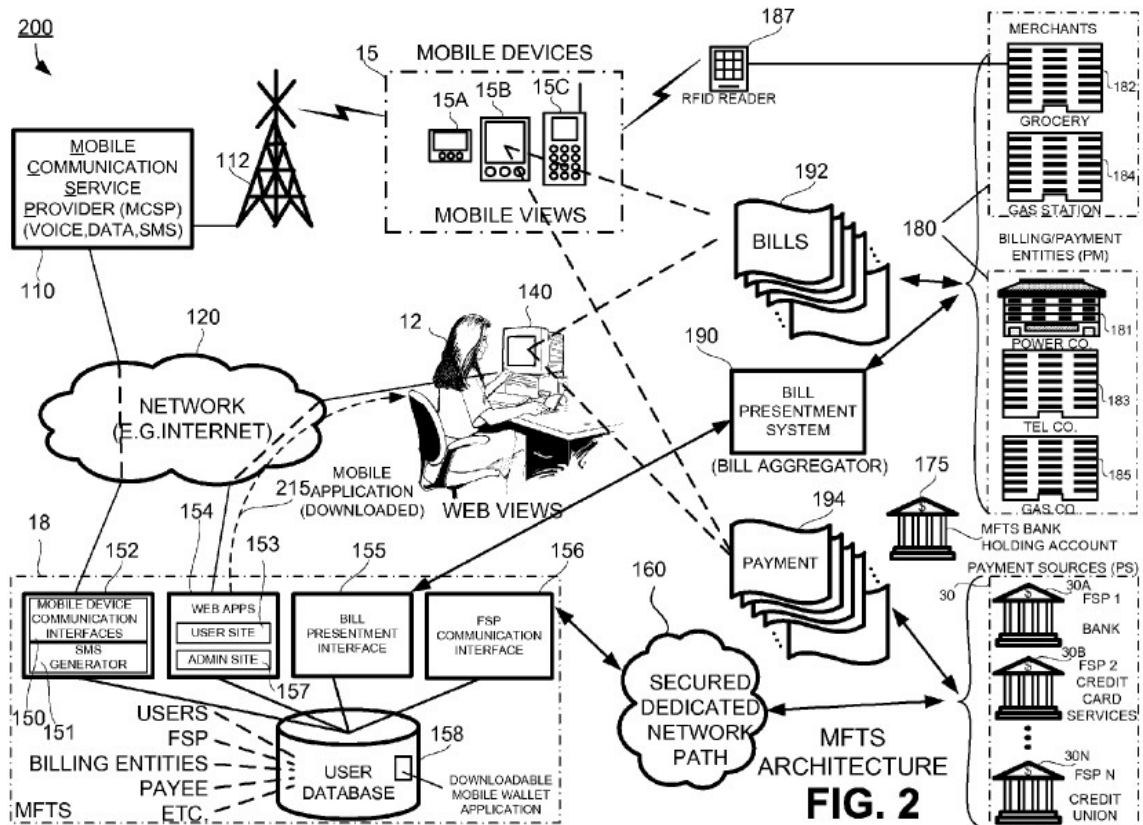
Lin, Fig. 4.

2. Overview of *Rackley*

Rackley discloses a system similar to the '307 patent and *Lin* for conducting a “mobile financial payment utilizing a mobile device.” *Rackley*, Abstract.

Rackley's system includes a “Mobile Wallet application” facilitating transactions

between payor and payee devices. *Rackley*, [0035]. In *Rackley*, the mobile devices 15 communicate with a central mobile financial transaction system (“MFTS”) 18. *Rackley*, [0146].



Rackley, Fig. 2; Lipoff, ¶58. To use *Rackley*’s MFTS application, “a user 12 with a suitable mobile device 15 must register for service with an entity that operates [the] MFTS 18.” *Rackley*, [0255]. *Rackley* enables users to transfer funds using various forms of accounts, such as credit card or banking accounts. *Rackley*, [0186].

Rackley also discloses conducting a “balance transfer,” described as “a financial transaction involving the transfer of funds between different accounts of the same user.” *Rackley*, [0447]. This allows a device user “to use his or her

mobile device to obtain and monitor information relating [to] the user’s financial accounts, and move funds from one account to another.” *Id.*; Lipoff, ¶59.

3. Combination of *Lin* and *Rackley*

A POSITA would have been motivated to modify *Lin*’s payment system so as to enable “balance transfers,” as taught by *Rackley*. Lipoff, ¶62.

As explained above, *Rackley* teaches a “balance transfer” that enables exchanging funds “between different accounts of the same user.” *Rackley*, [0447]. A POSITA would have been motivated to incorporate *Rackley*’s balance transfer capabilities into *Lin* to provide additional functionalities to the users of *Lin*’s transaction application. Lipoff, ¶63. For example, a POSITA would have recognized that balance transfer functionality provides users with additional tools for managing their funds, including the ability “to obtain and monitor information relating [to] the user’s financial accounts” and “move funds from one account to another.” *Rackley*, [0447]; Lipoff, ¶63.

Indeed, *Rackley* recognizes that consumers “must be able to ‘Pay Anyone’, at any time, in any of a number of different ways.” *Rackley*, [0024]. Consumers “must be provided with the information they need to conduct a transaction—and only such information as is necessary—and this information must be current.” *Id.* *Rackley* describes these requirements as “desirable,” and in some cases, “absolutely essential.” *Rackley*, [0025]. A POSITA would have understood that

Rackley's balance transfer capabilities help fulfill these consumer requirements.

Lipoff, ¶¶64-65.

A POSITA would have also understood that such balance transfers would be particularly beneficial in the context of *Lin* because the transfers would enable a user to fund (or withdraw funds) from “a user’s online music/media subscription or purchase account, such as an iTunes® account.” *Lin*, [0115]; Lipoff, ¶66. As *Lin* explains, “[a]n iTunes® account may include a number of ‘credits’ by which a user may redeem or exchange at the iTunes® online media store for media files, such as music files, movie files, audiobooks, podcasts, or the like.” *Lin*, [0115]. Although these “credits” are described as “a non-cash medium” (*Lin*, [0254]), a POSITA would have understood that such credits would have been acquired using a bank account or credit card. Lipoff, ¶66; *see also Lin*, Fig. 19C (depicting \$50 being credited to an iTunes® account). A balance transfer enables a user to transfer funds from a bank account or credit card into an iTunes® account to acquire credits for purchase of media files. Lipoff, ¶66.

A POSITA would have had a reasonable expectation of success in providing this form of balance transfer option within *Lin*. Lipoff, ¶67. Indeed, *Lin* discloses performing transactions between different users, and thus it would have been a straightforward (if not simpler) endeavor to likewise enable a user to conduct a balance transfer involving only a single user. *Id.* And *Rackley* provides a detailed

explanation of this form of transfer. *Rackley*, Fig. 33, [0453]-[0456]. Implementing this functionality in *Lin*'s system to allow a user to transfer assets between financial sources (e.g., credit card, bank accounts, third-party accounts) would have been merely the straightforward application of known, conventional techniques used according to their known functions to yield predictable results. Lipoff, ¶¶67-69.

4. Independent Claim 1

a. [1.pre]: “A system, comprising:”

To the extent the preamble is limiting, *Lin* discloses it. Lipoff, ¶70.

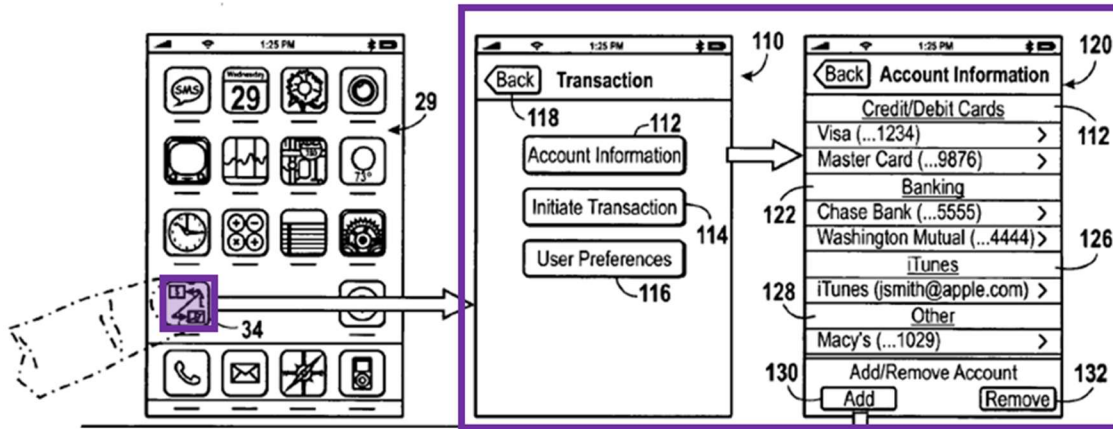
Lin discloses “various systems, methods, and electronic devices configured to initiate and process [peer-to-peer] transactions.” *Lin*, [0002]. *Lin* thus discloses a *system*. Lipoff, ¶71.

b. [1.a.i]: “memory storing program code associated with a service provided by a third-party entity to a plurality of members who register with the service provided by the third-party entity; and,”

Lin discloses and/or the *Lin-Rackley* combination renders obvious [1.a.i]. Lipoff, ¶72.

Lin discloses *memory storing program code associated with a service*. *Lin*'s system includes an electronic device 10, which may be “an iPhone®, available from Apple Inc.” *Lin*, [0085]. Device 10 includes a “**transaction application (e.g., represented by icon 34)**” (i.e., *program code*) that performs the various

functionalities for conducting transactions. *Lin*, [0121]. This **transaction application** is shown below in the context of device 10's user interface:



Lin, Fig. 5A (partially reproduced); Lipoff, ¶73. The **transaction application** “include[s] encoded instructions [(i.e., *program code*)] stored on one or more machine readable media, such as the storage device 54” of device 10, and is thus stored in memory. *Lin*, [0375].

Lin's transaction application is also *associated with a service provided by a third-party entity: Apple*. See *Lin*, [0085] (describing “transaction applications for providing the transaction related techniques and capabilities”), [0115], [0252]-[0254], [0375]; Lipoff, ¶74. *Lin* discloses the transaction application being accessed through “iTunes® accounts held by the payee and payor.” *Lin*, [0255]-[0256]. Using this **transaction application**, users may exchange non-cash assets by “a user's online music/media subscription or purchase account, such as an

iTunes® account available through the iTunes® online digital media store, developed and operated by Apple Inc.” *Lin*, [0115].

The service in *Lin* is provided ... to a plurality of members who register with the service provided by the third-party entity. A POSITA would have recognized that users of iTunes® accounts and the iPhone® would need to register with Apple for these services. *Lin*, [0115], [0252] (disclosing “an iTunes® account, available through the iTunes® online digital media store/service operated and managed by Apple Inc”), [0254]. This would have included, for example, setting up a particular username and password. Lipoff, ¶75; Ex-1008, 9-10 (“To use iPhone, you need: ... iTunes 8.2 or later ... [and] [a]n iTunes Store account....”). *Lin*’s transaction application is thus provided by Apple to a plurality of members who register with Apple’s ecosystem. Lipoff, ¶75.

Furthermore, register[ing] with [a] [transaction application] by the third-party entity was well known in the art. Lipoff, ¶76. For example, to use *Rackley*’s MFTS application, “a user 12 with a suitable mobile device 15 must register for service with an entity that operates an MFTS 18 constructed in accordance with exemplary aspects of the invention.” *Rackley*, [0255]. Such registration methods were well known as of the ’307 patent’s priority date. Lipoff, ¶76. To the extent not disclosed by *Lin*, a POSITA would have been motivated to incorporate

Rackley's registration capabilities to ensure that sensitive financial information may only be exchanged between registered users to improve system security. *Id.*

A POSITA would have also had a reasonable expectation of success in incorporating these features. For example, *Rackley*'s MFTS server provides these registration features. *Rackley*, [0184]. And *Rackley* describes a user site 153 hosted by this server for enabling users "to enroll to receive services by providing appropriate information such as name, address, mobile number, etc., to obtain a username and a password for security purposes." *Rackley*, [0184]. *Lin* already includes a similar "iTunes® server 818 configured to maintain the respective iTunes® accounts belonging to the payor and the payee." *Lin*, [0257]. A POSITA would have recognized that this server could host a similar page enabling this form of user registration. Lipoff, ¶77.

c. [1.b.i]: "one or more hardware processors configured to execute the program code, the program code including:"

Lin discloses [1.b.i]. Lipoff, ¶78.

Lin discloses a "**central processing unit (CPU) 50**" that may include "a single processor or, in other embodiments, a plurality of processors" (i.e., *one or more hardware processors*). *Lin*, [0100].

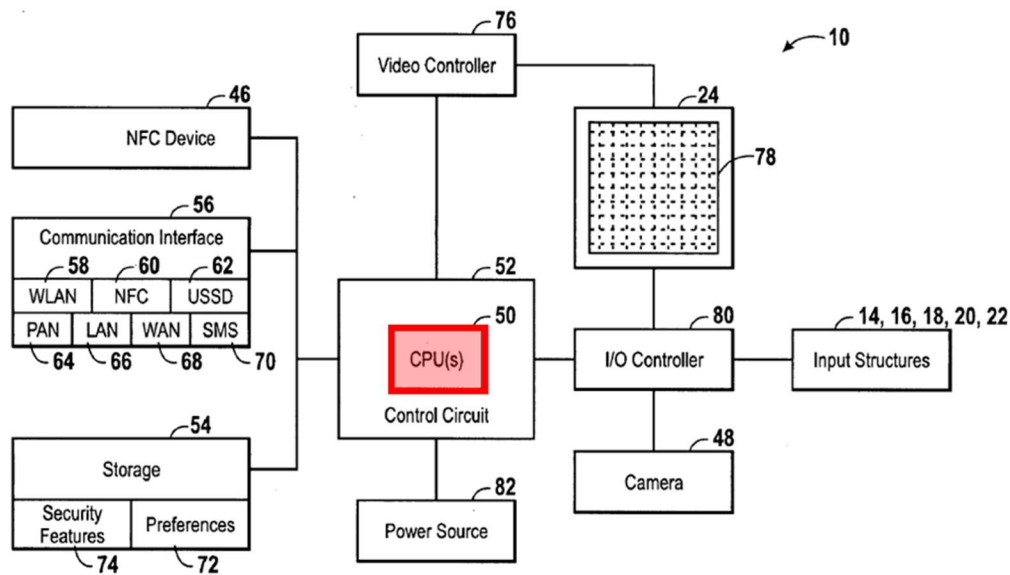


FIG. 3

Lin, Fig. 3; *Lipoff*, ¶79. This CPU cooperates with a control circuit to “provide the processing capability required to execute an operating system, application programs, the GUI 28, and any other functions provided on the device 10” and thus is configured to execute the program code. *Lin*, [0100].

- d. [1.b.ii]: “a first communication interface configured to communicate with a first device associated with a first financial institution on behalf of the plurality of members;”

Lin discloses [1.b.ii]. *Lipoff*, ¶80.

Lin discloses communication interface[s] configured to communicate with ... device[s] associated with financial providers. For example, *Lin* explains that “[o]nce the crediting account is selected on the payee device 10, ... ‘transaction information’ ... may be transmitted by the payee device 10 to one or more

financial servers 100 for ... authorization and processing of the requested payment.” *Lin*, [0126]. This “communication with the financial servers 100 may be accomplished through one or more ... **communication interfaces**.” *Id.* These interfaces are shown below:

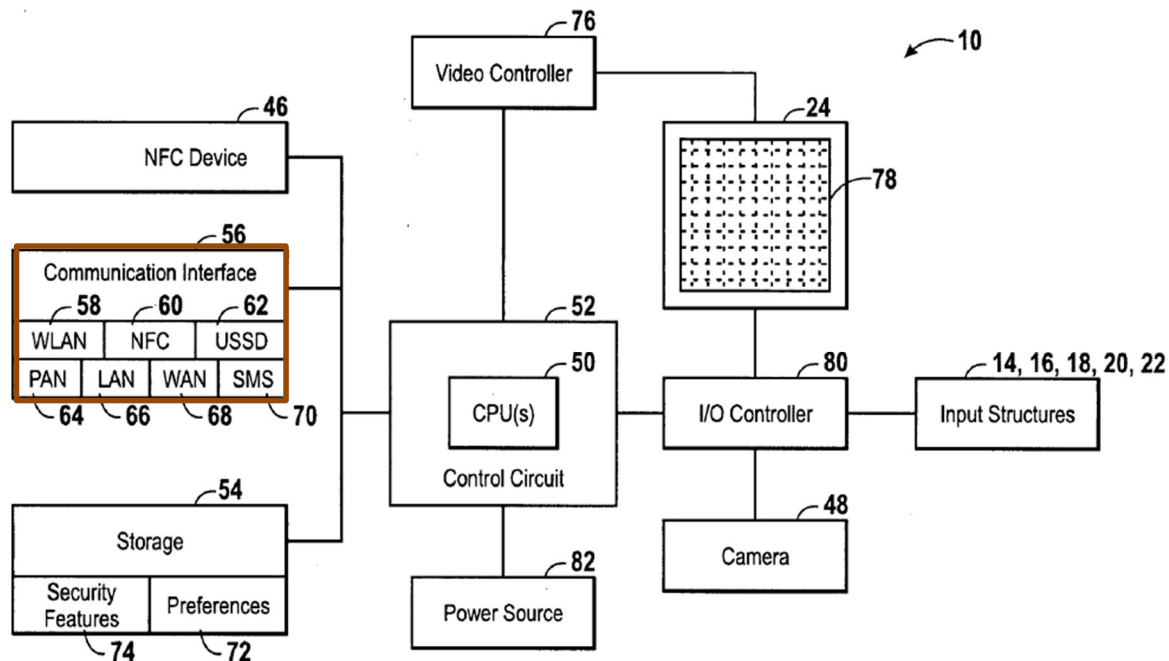


FIG. 3

Lin, Fig. 3; Lipoff, ¶81. According to *Lin*, “one or more of the ... data encryption techniques and security protocols (e.g., SSL or TLS protocols) ... may be further utilized in order to facilitate the secure transmission of the transaction data 98 to the financial servers 100.” *Lin*, [0126].

A POSITA would have recognized that the code of *Lin*’s transaction application likewise includes communication interfaces to direct communications to different devices in the system. Lipoff, ¶82. The portion of this program code

causing instructions or other information to be transmitted to a particular destination is a communication interface within the meaning of the '307 patent. *Id.*; Ex-1001, 9:66-10:7 (“[T]he term ‘interface’ includes a ... software ... and/or a computer program product that is typically embedded within, or installed on a computer, a server, or otherwise a dedicated auxiliary device.”).

Lin’s communication interfaces include *a first communication interface configured to communicate with a first device associated with a first financial institution*. Lipoff, ¶83. *Lin* discloses that “transaction data 98 may be ... transmitted to a credit card verification server ... associated with a credit card company which maintains the payor’s selected credit card account.” *Lin*, [0128]. *Lin* also explains that “instead of a credit card verification server, a transaction may be processed by multiple bank servers.” *Lin*, [0129]. Indeed, *Lin* discloses “one or more types of financial servers ... utilized for the processing of a peer-to-peer transaction[s] in accordance with embodiments of the present disclosure.” *Id.* A POSITA would have recognized that these financial servers would be *associated with a first financial institution*. Lipoff, ¶83. Each device 10 thus includes program code associated with the transaction application to interface with a first financial institution (e.g., a credit card or bank) and send instructions for direct payment via that first financial institution. *Id.*

This interface (as well as the other communication interfaces described below in [1.b.iii] and [1.b.iv]) is configured to communicate *on behalf of the plurality of members* because the transaction information communicated to the financial server for authorization includes “the payment account information 96, and the selected crediting account”—information for both the payee and payor. *Lin*, [0126], [0192]; Lipoff, ¶84; *see also Lin*, [0187] (“[F]inancial server 380 ... determine[s] whether the specified payment account and crediting account are compatible.”).

As Mr. Lipoff explains, including different communication interfaces for different financial service providers, as disclosed by *Lin*, was well known in the art. Lipoff, ¶85. For example, *Rackley* discloses “multiple **financial service provider communication interfaces 156** to partner Financial Service Providers (FSPs) 30 ... to whom payment instructions are sent on behalf of a user.” *Rackley*, [0186]. And *Tumminaro* explains that “[e]ach partner system may have a different electronic interfacing scheme, and the mobile payment system will communicate using the appropriate application program interface (API) for each partner[, thus] ... allow[ing] easy integration of financial partners (e.g., banking partners, card partners) to mobile and other consumer partners (e.g., mobile phone carriers).” *Tumminaro*, [0255].

- e. **[1.b.iii]: “a second communication interface configured to communicate with a second device associated with a second financial institution on behalf of the plurality of members;”**

Lin discloses [1.b.iii]. Lipoff, ¶86.

As explained for [1.b.ii], *Lin* discloses *communication interface[s]* configured to communicate with ... *device[s]* associated with financial providers, and these interfaces are configured to communicate *on behalf of the plurality of members*. *Supra* §VII.A.4.d; Lipoff, ¶87.

Lin’s communication interfaces include *a second communication interface configured to communicate with a second device associated with a second financial institution*. Lipoff, ¶88. As explained above in [1.b.ii], *Lin* discloses that “a transaction may be processed by multiple bank servers.” *Lin*, [0129]. A POSITA would have recognized that these bank servers would be *associated with a second financial institution*. Lipoff, ¶88. Each device 10 thus includes program code associated with the transaction application to interface with a second financial institution (e.g., a first or second bank) and send instructions for direct payment via that financial institution. *Id.*

- f. **[1.b.iv]: “a third communication interface configured to communicate with a third device associated with the third-party entity;”**

Lin discloses [1.b.iv]. Lipoff, ¶89.

As explained for [1.b.ii], *Lin* discloses *communication interface[s]* configured to communicate with ... *device[s]* associated with financial providers. *Supra* §VII.A.4.d; Lipoff, ¶90.

Lin's communication interfaces include *a third communication interface configured to communicate with a third device associated with the third-party entity*. Lipoff, ¶91. *Lin*'s "financial servers 100 need not necessarily be limited to financial servers configured to manage monetary assets" and "may include a server managed by the iTunes® online server." *Lin*, [0132]. As explained, *Lin*'s transaction application is provided by Apple Inc. *Lin*, [0252]. Each device 10 thus also includes program code associated with the transaction application to interface with iTunes® and send instructions for direct payment via iTunes®. Lipoff, ¶91.

- g. [1.b.v]: "login interface code configured to request security credentials from a first member of the plurality of members before the first member can access the service, the first member having previously registered with the service;"**

Lin discloses and/or the *Lin-Rackley* combination renders obvious [1.b.v]. Lipoff, ¶92.

Lin discloses various "security features 74 [that may be] available for each respective communication interface." *Lin*, [0114]. These security features, shown below, "include a secure access-restricted storage area ... to limit access to the data that may be required by the certain aspects of the security features 74, such as

encryption keys, passcodes and passwords, digital certificates, or the like.” *Lin*, [0115].

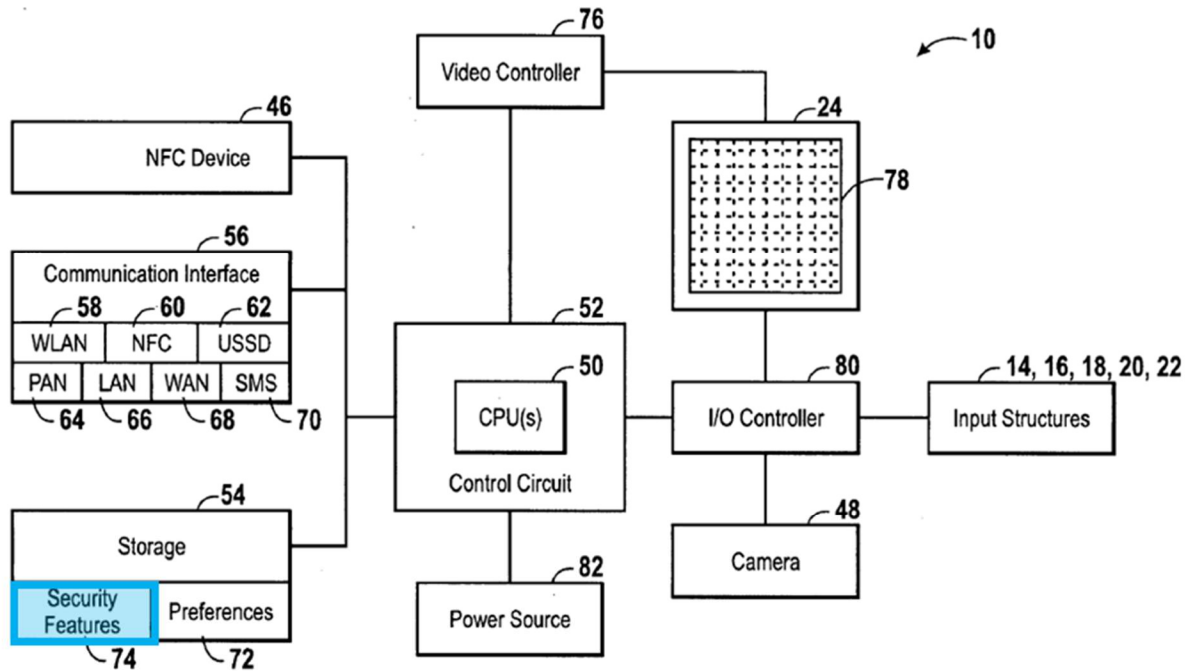
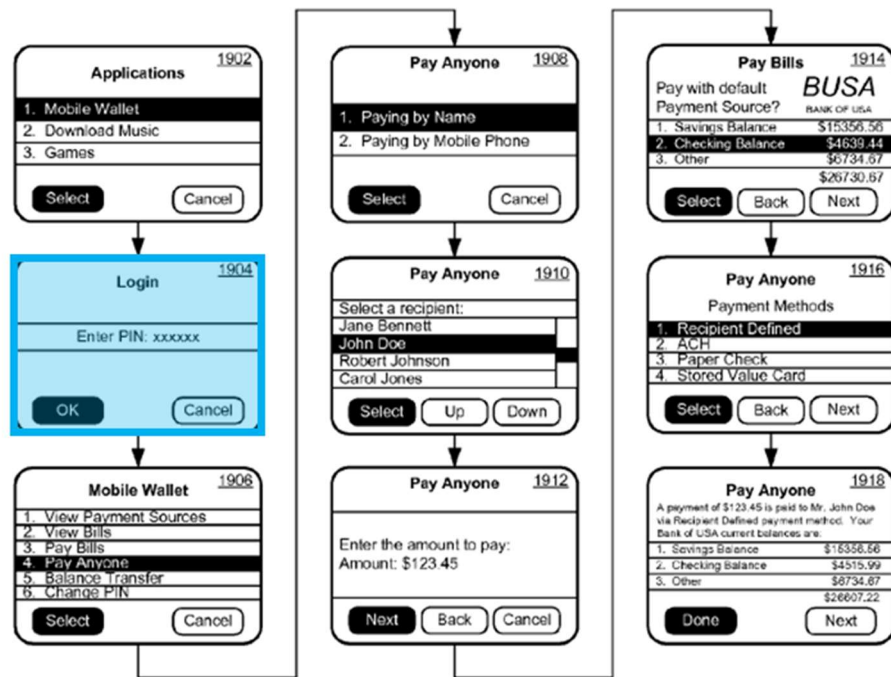


FIG. 3

Lin, Fig. 3; Lipoff, ¶93. For example, *Lin*’s “security features 74 ... allow a user to lock or temporarily disable all (e.g., lock on power-up) or only certain functions on the device 10” such that, when locked, “peer-to-peer transaction features ... may be disabled or inaccessible by users until a user-specified PIN or password is provided.” *Lin*, [0116]. A POSITA would have understood that *Lin*’s security features would include login interface code to enable a user (i.e., member) to enter a PIN or password and access the transaction application’s peer-to-peer transaction features. Lipoff, ¶¶93-94.

To the extent further disclosure is required, a POSITA would have also been motivated to modify *Lin* to include login interface code configured to request credentials from a registered member before accessing the transaction application. Lipoff, ¶95. *Rackley* teaches a *login interface code configured to request security credentials*. For example, *Rackley* discloses a “Pay Anyone” process (shown below), during which “a conventional **user login screen** for entry of username and password (not shown) is provided.” *Rackley*, [0313].



PAYANYONE BY NAME (RECIPIENT DEFINED, PAYER'S VIEW)

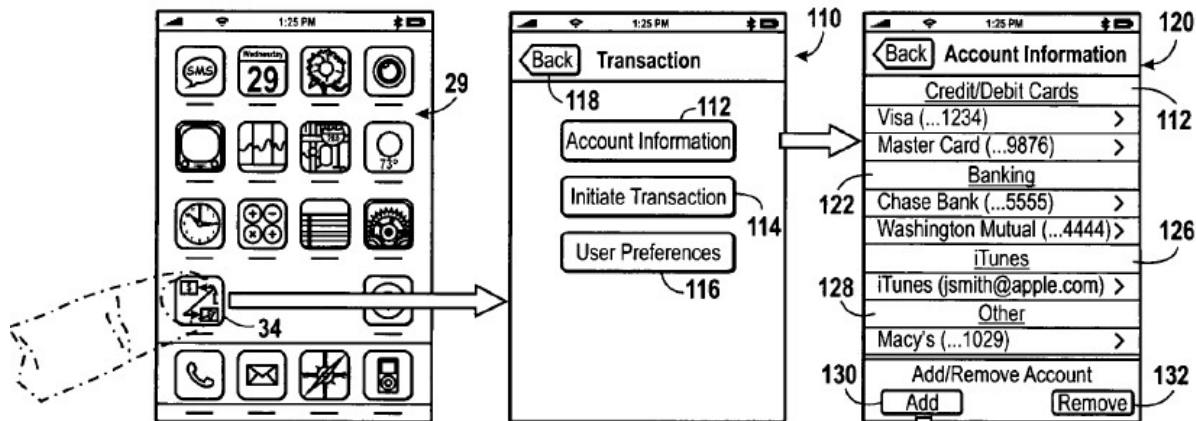
FIG. 19

Rackley, Fig. 19.

Rackley's login interface is for *request[ing] security credentials from a first member of the plurality of members*. For example, in *Rackley*'s “Pay Anyone”

process, **login screen 1904** (shown above) is presented to a payer via the “payer’s mobile device.” *Rackley*, [0376]. When combined with *Lin*, the payer would be one of the registered members of the service. Lipoff, ¶96. And *Rackley* expressly states that these security credentials are requested *before the first member can access the service* because they are required to access the mobile wallet. *Rackley*, [0339] (explaining that when the “user opens a ‘Mobile Wallet’ application on the mobile device 15[,], he/she is preferably required to log in by providing a password or PIN for verification”), [0376] (explaining that screen 1904 is “described elsewhere herein and will not be repeated”).

As discussed above, *Lin*’s system describes various security measures, such as “passcodes and passwords.” *Lin*, [0115]. Further, *Lin*’s system—operated by Apple, Inc.—is demonstrated on an iPhone® device and, thus, a user of the transaction application would already be logged in to the Apple ecosystem. Lipoff, ¶97; Ex-1008, 9-10 (explaining that use of an iPhone requires “[a]n iTunes Store account”). Accordingly, *Lin*’s transaction application provides access to payment capabilities and potentially sensitive financial information due to users being authenticated through the device as a whole:



Lin, Fig. 5A (partially reproduced). To the extent not expressly disclosed, a POSITA would have been motivated to incorporate *Rackley*'s login interface and related features to provide a more secure payment application for payors and payees. Lipoff, ¶97.

A POSITA would have had a reasonable expectation of success in providing a login interface requesting security credentials from a first member of the plurality of members before the first member can access the service. Lipoff, ¶98. A POSITA would have recognized that providing a login interface requesting security credentials from a first member of the plurality of members before the first member can access the service was well known and routine in the prior art. *Id.* Indeed, *Lin* already discloses requiring “passcodes and passwords” for access control, as discussed above. *Lin*, [0115]. And implementing this login interface in *Lin*'s system as the contemplated security features would have been merely the

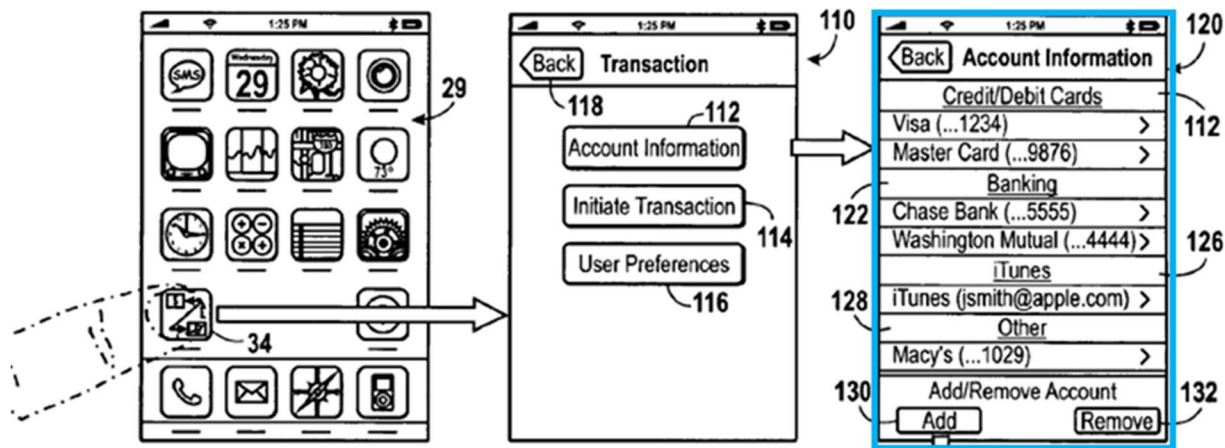
straightforward application of known, conventional techniques used according to their known functions to yield predictable results. Lipoff, ¶98.

- h. [1.b.vi]: “first interface code configured to assist the first member to register a set of one or more payment sources for a future transaction, the first interface code configured to assist the first member to register a first account associated with the first financial institution in the set of one or more payment sources, and configured to assist the first member to register a second account associated with the second financial institution in the set of one or more payment sources, the third-party entity being different than the financial institution and different than the first financial institution;”

Lin discloses [1.b.vi]. Lipoff, ¶99.

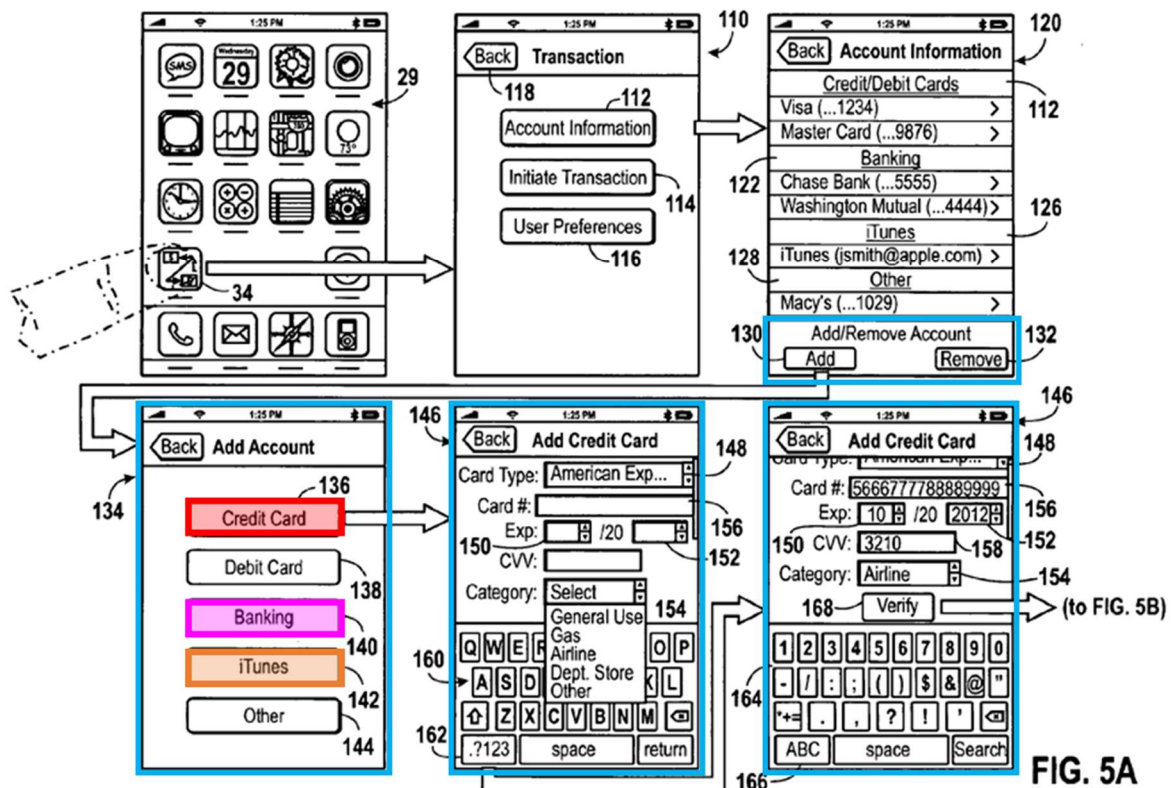
Lin discloses *first interface code configured to assist the first member to register a set of one or more payment sources for a future transaction.*

Lipoff, ¶100. For example, *Lin* discloses a “**screen 120**” for “display[ing] a listing of all accounts presently stored on the device 10” along with “graphical elements representing the functions of adding additional accounts to or removing existing accounts.” *Lin*, [0138]. **Screen 120** is shown below:



Lin, Fig. 5A (partially reproduced). *Lin* confirms that these accounts are used as payment sources for a future transaction. *E.g.*, *Lin*, [0215] (enabling payor to select from the “payment accounts stored on the payor device”).

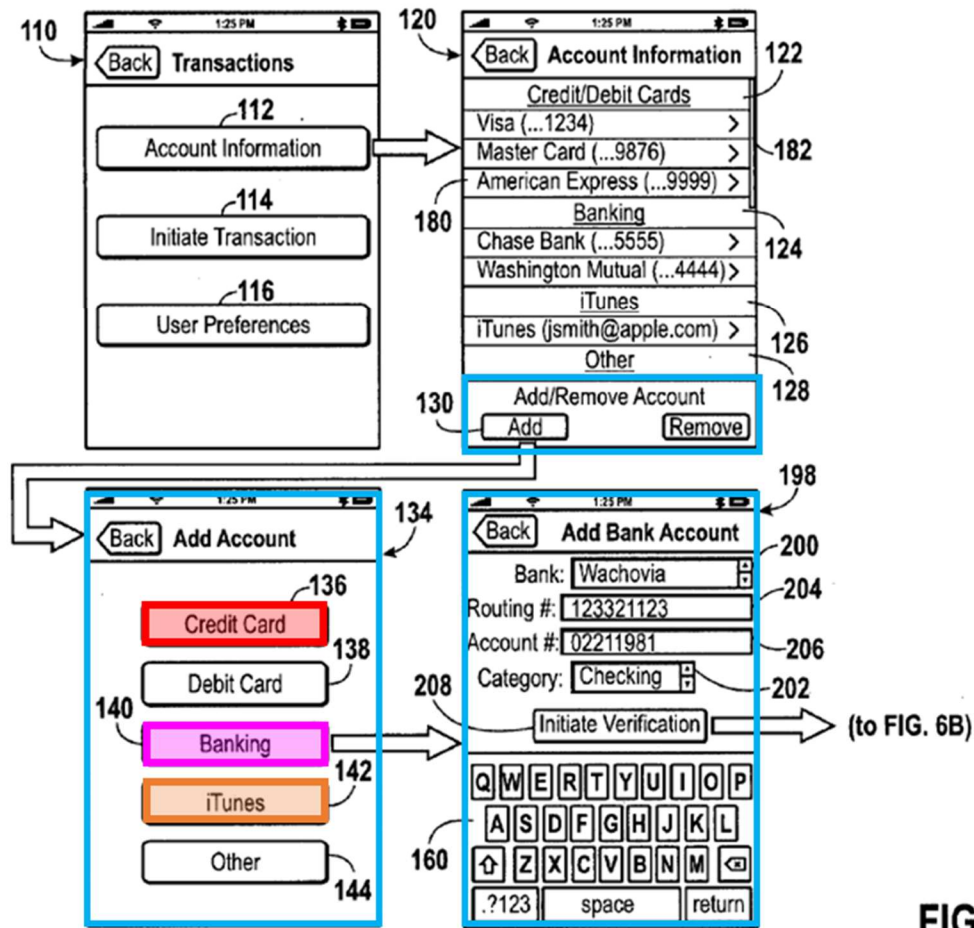
Lin further details how payment accounts may be registered. Lipoff, ¶101. According to *Lin*, with reference to screen 120, “upon selecting the graphical button 130 [(i.e., ‘Add’)], the user may be advanced to the screen 134[, which] ... may include a plurality of graphical buttons ... represent[ing] categories of various types of accounts which may be stored onto the device 10.” *Lin*, [0139]. Selection of one of these buttons “advance[s] the user to the screen 146” (*id.*), which includes various fields enabling a user to input information associated with the account being registered (*Lin*, [0142]-[0144], Fig. 5A). These screens are shown below:



Lin, Fig. 5A.

Lin discloses that these interfaces are *configured to assist the first member to register a first account associated with the first financial institution in the set of one or more payment sources*. Lipoff, ¶102. For example, “the user may initiate the process of entering and storing a new credit card account by selecting the **graphical button 136**” on **screen 134**. *Lin*, [0139], Fig. 5A. As shown in Figure 5A (above), once **button 136** has been selected, **screen 146** may include a field 148 “provid[ing] a listing of credit card brands corresponding to various credit card providers” to be selected by the user. *Lin*, [0140].

In addition, *Lin* explains that **screen 134** (below) displays graphical button **140** and that “to enter and store a new bank account, the user may select the **graphical button 140** to proceed to the screen 198,” which “may be similar to the screen 146 [in Fig. 5A].” *Lin*, [0150]; Lipoff, ¶103; *see also Lin*, Fig. 6A. **Screen 198** “may allow the user to select the identity of the banking provider associated with the new bank account.” *Lin*, [0150].



Lin, Fig. 6A.

Lin also discloses that these interfaces are *configured to assist the first member to register a second account associated with the second financial institution in the set of one or more payment sources*. Lipoff, ¶104. **Screen 120** in *Lin*'s Figs. 5A and 6A (both above) identifies multiple banking (e.g., "Chase Bank" and "Washington Mutual") and Credit/Debit Card (e.g., "Visa," "Master Card" and "American Express") "accounts presently stored on the device 10." *Lin*, [0138]. A POSITA would understand that these multiple accounts are *a first account associated with the first financial institution and a second account associated with the second financial institution*. Lipoff, ¶104.

Lin further discloses *the third-party entity being different than the [second] financial institution⁴ and different than the first financial institution*. Lipoff, ¶105. For example, *Lin* explains that "**screen 134** may display the graphical buttons **136**, **138**, **140**, **142**, and **144**, each of which may represent categories of various types of accounts which may be stored onto the device 10." *Lin*, [0150]. As explained above, *Lin* requires users to register with a service provided by a third-party entity. *Supra* §VII.A.4.b [1.a.i]. The *service* corresponds to the **iTunes® payment**

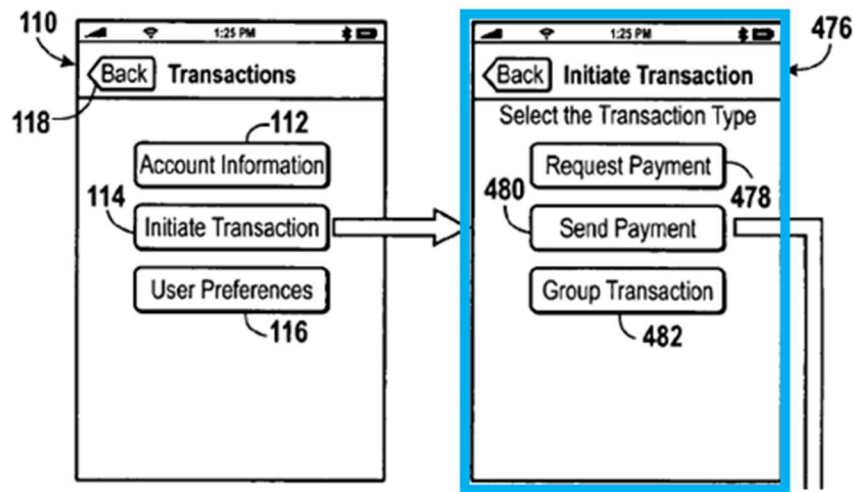
⁴ Claim 1's recitation of "the financial institution" lacks antecedent basis, so the Petition assumes "the financial institution" refers to the earlier introduced "second financial institution."

account described in *Lin*. Lipoff, ¶105. As indicated by **button 142**, this third-party entity is *different than the [second] financial institution and different than the first financial institution*. See *Lin*, [0132], Fig. 6A.

- i. **[1.b.vii]: “second interface code configured to enable the first member to select a payment function identifier from a set of function identifiers to navigate to a payment function, the payment function configured to assist the first member to request sending a payment amount to a payee account, the payee account being a third-party account associated with the third-party entity and belonging to a second member of the plurality of members, the second member having previously registered with the service;”**

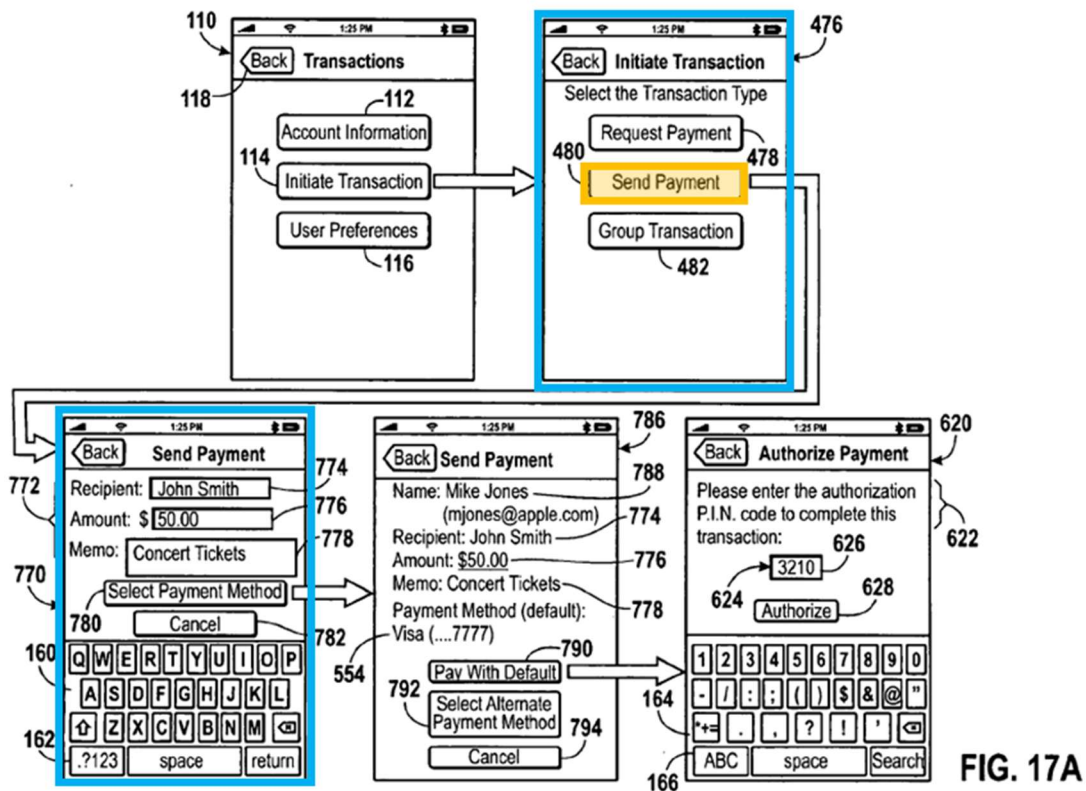
Lin discloses and/or the *Lin-Rackley* combination renders obvious [1.b.vii].
Lipoff, ¶106.

Lin discloses *second interface code configured to enable the first member to select a payment function identifier from a set of function identifiers to navigate to a payment function*. Lipoff, ¶107. For example, *Lin* discloses a “**screen 476** ... display[ing] a plurality of graphical buttons,” each of which “represent[s] a particular function that may be performed when selected.” *Lin*, [0201]. **Screen 476** is shown below (right), including each of the available payment functions for selection:



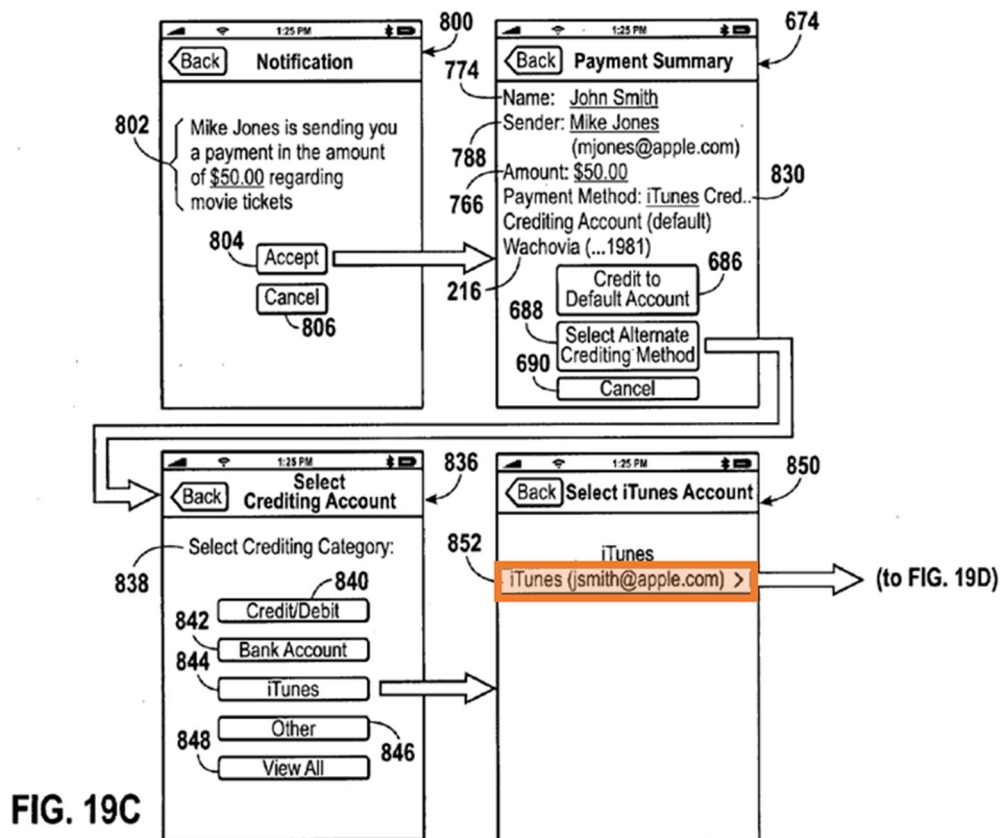
Lin, Fig. 17A (partially reproduced). A POSITA would have recognized that these graphical buttons each represent *a payment function identifier from a set of function identifiers* because they represent payment functions that may be selected and performed by a user. Lipoff, ¶107. Each graphical button allows a user to *navigate to a payment function*, including to request payment, send payment, and initiate a group transaction. *Lin*, [0201], [0279], [0345].

Lin's function identifiers include a “graphical button 480 ... represent[ing] a function by which the user may send a payment to another device.” *Lin*, [0201]. Button 480, which is the **send payment function**, corresponds to a *payment function configured to assist the first member to request sending a payment amount to a payee account*. Lipoff, ¶108. For example, “the payor may initiate the sending of a payment by selecting the graphical button 480” and “may be advanced to the screen 770.” *Lin*, [0245]; *see also Lin*, Figs. 19A-19C. This is shown below:



Lin, Fig. 17A. This **send payment function** is a payment function configured to assist the first member to request sending a payment amount to a payee account because it “represent[s] a function by which the user may send a payment to another device” Lin, [0201]. Lin confirms that this payment is sent to a payee account, explaining that “the payor may input the identity of the payee 774 [and] the amount of the payment being sent to the payee 776.” Lin, [0245]. Thus, by enabling the payor to request transfer to the payee, Lin’s payment function assist[s] the first member to request sending a payment amount to a payee account because this request will result in transfer to the payee’s account. Lipoff, ¶108.

Lin further discloses *the payee account being a third-party account associated with the third-party entity and belonging to a second member of the plurality of members, the second member having previously registered with the service.* Lipoff, ¶109. As discussed above, *Lin* enables transactions using “iTunes® accounts held by the payee and payor.” *Lin*, [0255]. *Lin* further explains that, after receiving a payment sent by the payor, the payee “select[s] a compatible account (in this case an iTunes® account) for receiving” the payment via a screen 836. *Lin*, [0265]. For example, as shown in Figure 19C (below), “the payee may select the **iTunes® account 852** as the crediting account in the present transaction 808.” *Id.*



Lin, Fig. 19C. Accordingly, payment is made to *a third-party account* (iTunes®) *associated with the third-party entity* (Apple). Because the payee is a holder of an iTunes® account, this account *belong[s] to a second member of the plurality of members who previously registered with the service*. Lipoff, ¶110; *supra* §VII.A.4.b [1.a.i] (explaining that the second member *[would] hav[e] previously registered with the service*).

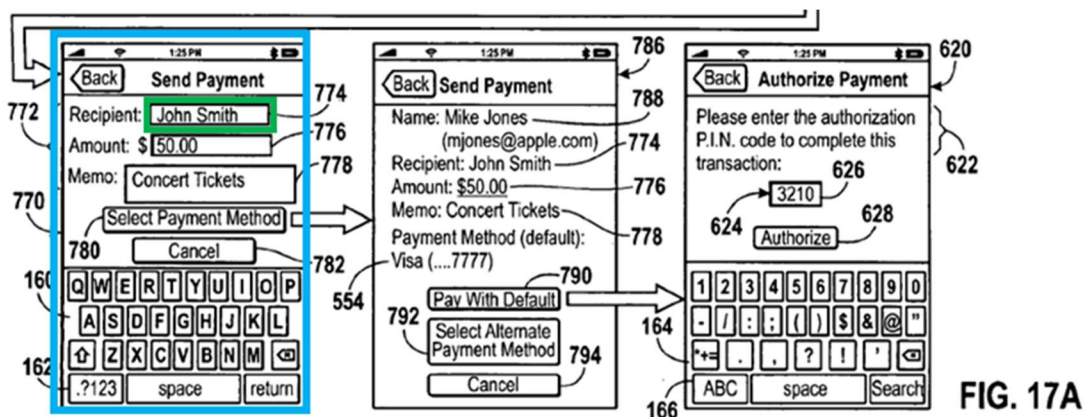
To the extent further disclosure is required, as explained above, a POSITA would have been motivated to modify *Lin*'s application in view of *Rackley* to incorporate a balance transfer functionality. *Supra* §VII.A.3; Lipoff, ¶111. This balance transfer enables the first member to “transfer ... funds between different accounts of the same user.” *Rackley*, [0447]. As discussed in more detail below (*infra* §VII.A.4.j [1.b.viii]), as part of this modification, it would have been obvious for *Lin*'s **screen 770** to include an option of designating the device user (i.e., the first member) as the identity of payee 774 (i.e., the second member) to carry out a balance transfer. Lipoff, ¶111. Indeed, dependent claim 5 of the '307 patent confirms that the second member (payee) may be the same as the first member (payor). Ex-1001, claim 5.

j. [1.b.viii]: “third interface code configured to enable the first member to select a payee identifier identifying the payee account;”

Lin discloses and/or the *Lin-Rackley* combination renders obvious [1.b.viii].

Lipoff, ¶112.

Lin discloses *third interface code configured to enable the first member to select a payee identifier identifying the payee account*. For example, *Lin* discloses that “the payor may initiate the sending of a payment by selecting the graphical button 480 [and] [t]hereafter ... may be advanced to the **screen 770**.” *Lin*, [0245].



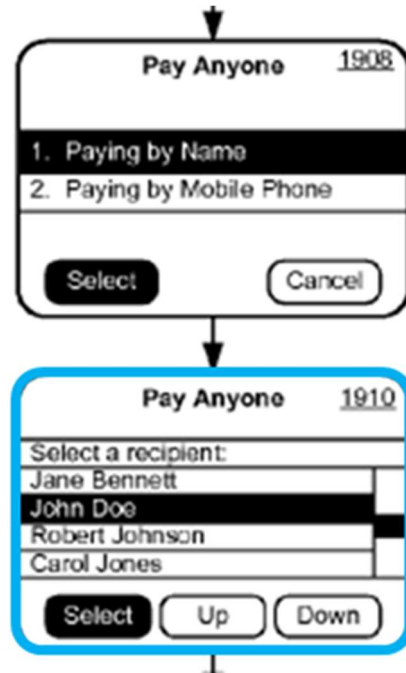
Lin, Fig. 17A (partially reproduced); Lipoff, ¶113. *Lin*’s **screen 770** enables the payor to input (i.e., *select*) information such as “the identity of the **payee 774**.” *Lin*, [0250].

As discussed above, a POSITA would have been motivated to modify *Lin*’s application in view of *Rackley* to incorporate a balance transfer functionality. *Supra* §VII.A.3. Under this modification, it would have been obvious for *Lin*’s **screen 770** to include an option of designating the device user (i.e., *the first*

member) as the identity of payee 774 to carry out a balance transfer. Lipoff, ¶114.

A POSITA would have been motivated to modify *Lin*'s **screen 770** in this way so as to minimize the number of modifications to *Lin*'s application that would have been necessary to implement balance transfer functionality. *Id.* Indeed, as Mr. Lipoff explains, this sort of modification would have been intuitive to users who were otherwise accustomed to signing checks to transfer cash and selecting (i.e., writing) the user's own name when conducting a non-digital balance transfer from a bank account. *Id.*

To the extent not expressly disclosed, a POSITA would have been motivated to modify *Lin* in view of *Rackley* to provide the user (payor) the option of selecting among known contacts for payment. Lipoff, ¶115. For example, when using *Rackley*'s "Pay Anyone" function (shown below), a payor is presented with a **screen 1910** "comprising a list of pre-entered payees" from which a payee name may be selected. *Rackley*, [0377]. This is shown below:



Rackley, Fig. 19 (partially reproduced). These selectable names are *payee identifier[s]* because they refer to members registered with the system. *Rackley*, [0377] (indicating “[i]nformation relating to the names on the list in the screen 1910 may be stored locally in the mobile device and/or in the MFTS 18 user database”).

A POSITA would have recognized that the ability to select a payee from a pre-populated list, as described by *Rackley*, would improve the user experience. Lipoff, ¶116. Rather than having to know which users are registered with the system and to remember user identifiers, the payor could simply select from a pre-stored list (modified to include the first member for a balance transfer). *Id.*; *Rackley*, [0377]. A POSITA would have thus been motivated to incorporate a pre-

populated list of potential payees to improve usability of the transaction application. Lipoff, ¶116.

A POSITA would have had a reasonable expectation of success in doing so because *Lin*'s transaction application already includes a payee identifier input, and updating this interface to include a dropdown menu of available payees would have been a straightforward modification. Lipoff, ¶117; *Lin*, [0250]. Indeed, the use of dropdown menus in user interfaces was a common practice. Lipoff, ¶117; *see Lin*, [0304] (describing “dropdown selection field” in another interface); *Rackley*, [0482] (describing “dropdown menu”).

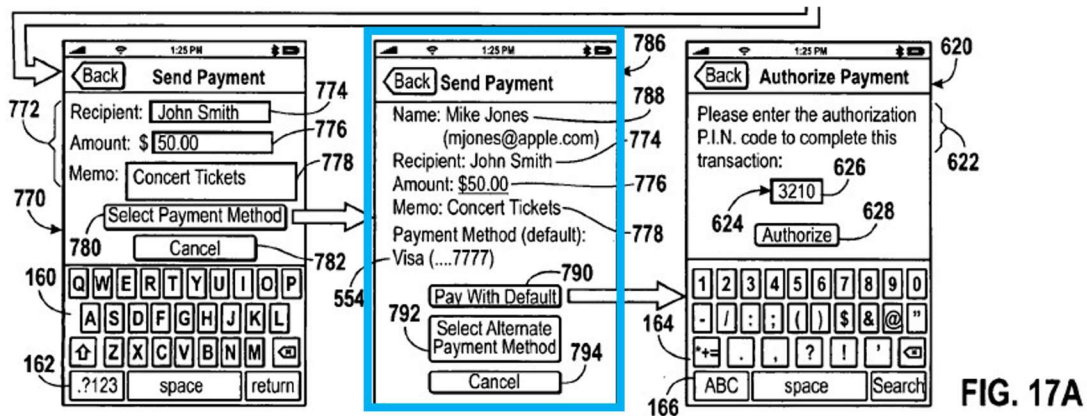
- k. **[1.b.ix]: “fourth interface code configured to enable the first member to select a payment source identifier from a set of one or more payment source identifiers, the set of one or more payment source identifiers identifying a particular set of one or more payment sources, the fourth interface code capable of presenting in the set of one or more payment source identifiers a first account identifier identifying the first account associated with the first financial institution, a second account identifier identifying the second account associated with the second financial institution, and a third-party account identifier identifying a third-party account associated with the third-party entity and belonging to the first member;”**

Lin discloses [1.b.ix]. Lipoff, ¶118.

Lin discloses *fourth interface code configured to enable the first member to select a payment source identifier from a set of one or more payment source*

identifiers. Lipoff, ¶119. In *Lin*, after entering the identity of the payee, “the user may proceed to the **screen 786** in order to select an appropriate payment method by selecting the graphical button 780.” *Lin*, [0245]. **Screen 786** includes a “graphical button 792” directing the payor to “one or more screens for the selection of an alternate payment method” referring to another screen 566. *Lin*, [0247].

Screen 786, including its associated payment options, is shown below:



Lin, Fig. 17A (partially reproduced).

When a user presses “graphical button 792” and elects to select alternate payment methods, **screen 566** (below) “display[s] a plurality of graphical buttons ... representing account categories ... represented by the buttons 570, 572, 574, 576, or 578.” *Lin*, [0214], [0247]. Through selection of one of these buttons, the user is provided with a list of available payment accounts on **screen 598** to select from to complete a payment. *Lin*, [0215]. The transition from **screen 566** to **screen 598** is shown below:

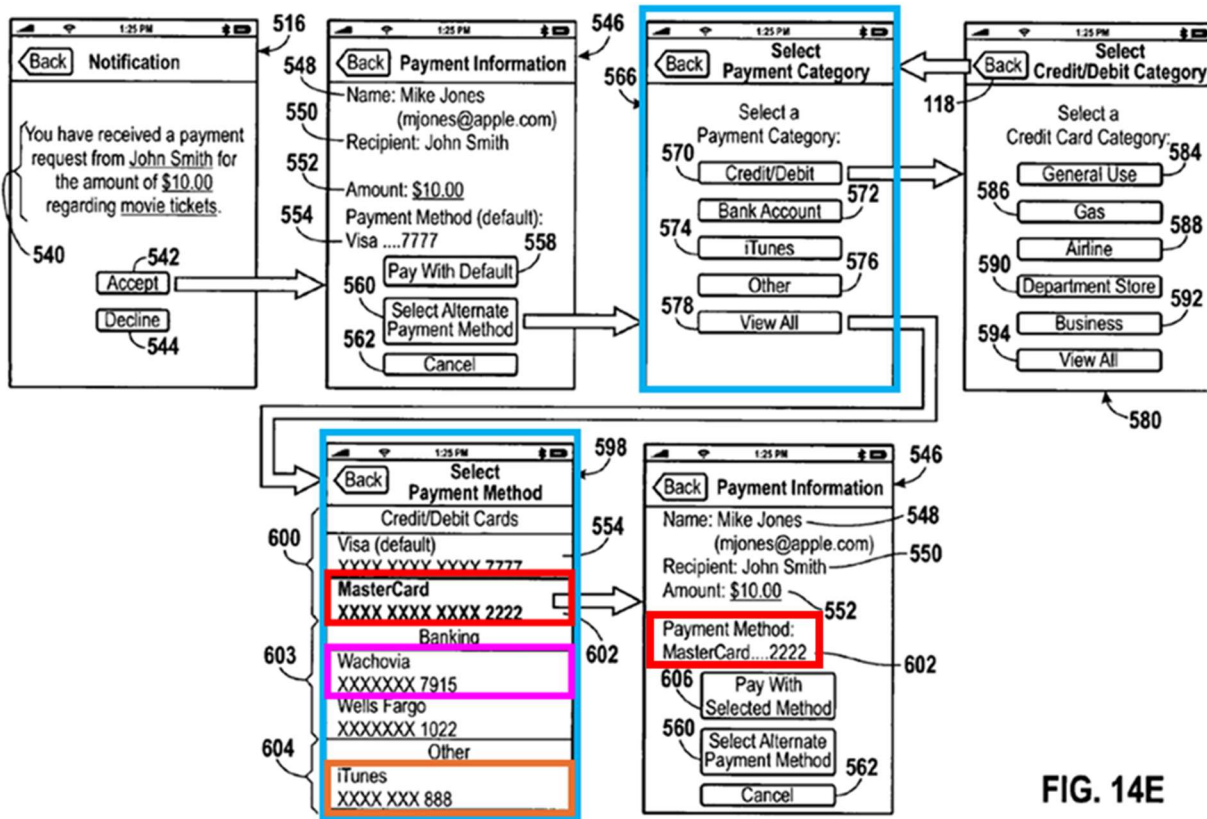


FIG. 14E

Lin, Fig. 14E; Lipoff, ¶120. The listed payment accounts on **screen 598** are *payment source identifiers* because they represent an account that, when selected, will be used to initiate the transaction. *Lin*, [0247], [0215]. Accordingly, at least **screen 786** (in *Lin*, Fig. 17A), and **screens 566 and 598** (in *Lin*, Fig. 14E)⁵ represent the *fourth interface code configured to enable the first member to select a*

⁵ Although screens 566 and 598 are initially described in the context of a payee-initiated transaction, *Lin* explains that within screen 786, “upon selection of the graphical button 792, the payor may be advanced to the screen 566 previously described above with reference to FIG. 14E.” *Lin*, [0261].

payment source identifier from a set of one or more payment source identifiers.

Lipoff, ¶120. Further, the listed payment accounts represent *the set of one or more payment source identifiers identifying a particular set of one or more payment sources* because **screen 598** lists stored payment sources, each of which represents a different source account. *Lin*, [0215]; Lipoff, ¶121.

Lin discloses *fourth interface code capable of presenting in the set of one or more payment source identifiers a first account identifier identifying the first account associated with the first financial institution, [and] a second account identifier identifying the second account associated with the second financial institution.* Lipoff, ¶122. For example, **screen 598** (shown above) lists various types of accounts, such as **credit card accounts 600**, **bank accounts 603**, and other accounts **604**, including **non-cash iTunes® accounts**. *Lin*, [0215].

Lin explains that from within the “listing **603 of bank accounts** ... the payor may select the bank account 612 ... associated with a banking provider (e.g., Wells Fargo®).” *Lin*, [0218]. *Lin* further explains that, using **screen 598**, “the payor may select the alternate **credit card account 602** as the payment account.” *Lin*, [0216]. As shown in Figure 14E (above), this alternate account is associated with MasterCard™. *Lin*, [0215].

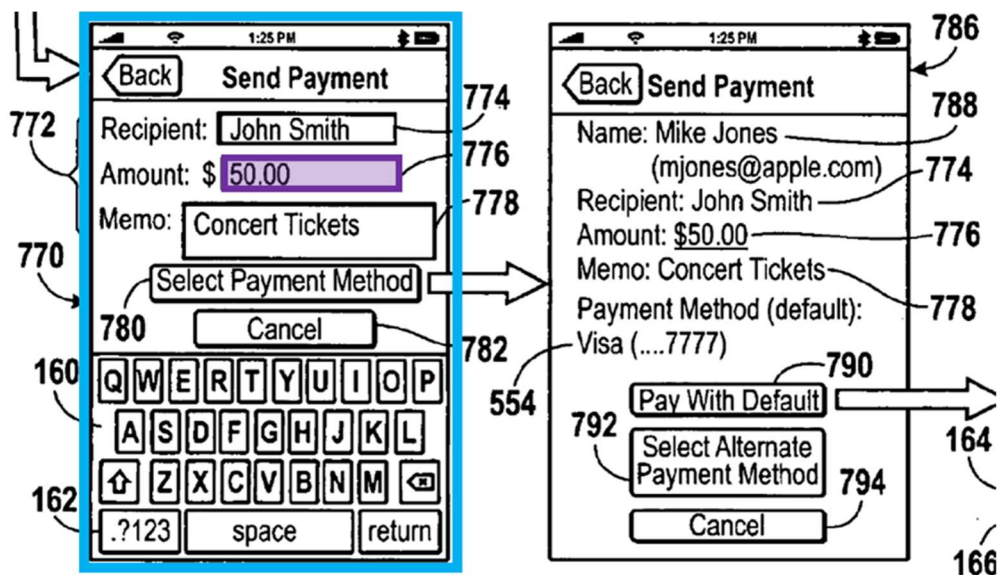
Lin likewise discloses *the fourth interface code capable of presenting ... a third-party account identifier identifying a third-party account associated with the*

third-party entity and belonging to the first member. Lipoff, ¶123. For example, **screen 598** presents “additional accounts **604** including a **non-cash iTunes® account**” belonging to the user. *Lin*, [0215], [0253].

I. [1.b.x]: “fifth interface code configured to enable the first member to identify the payment amount to be transferred to the payee account;”

Lin discloses [1.b.x]. Lipoff, ¶124.

As part of initiating a transaction and sending a payment, *Lin*’s **screen 770** enables a user to input an “**amount of the payment being sent to the payee 776.**” *Lin*, [0246]. This is shown below:



Lin, Fig. 17A (partially reproduced). **Screen 770** thus displays an interface configured to enable the first member to identify the payment amount to be transferred to the payee account. Lipoff, ¶125.

- m. **[1.b.xi]: “control code configured to select the first communication interface as a particular communication interface and to establish a communication link between the first communication interface and the first device associated with the first financial institution on behalf of the first member when the particular payment source is the first account associated with the first financial institution,”**

Lin discloses [1.b.xi]. Lipoff, ¶126.

As explained for [1.b.ii], *Lin* discloses *a first communication interface configured to communicate with a first device associated with a first financial institution on behalf of the plurality of members. Supra §VII.A.4.d; Lipoff, ¶127.*

And as explained for [1.b.ix], *Lin* discloses *fourth interface code configured to enable the first member to select a payment source identifier. Supra §VII.A.4.k.*

Lin’s device may “communicate with one or more external servers to acquire an authorization for a payment through a selected communication channel.” *Lin*, [0085]. *Lin*’s communication interfaces provide “connectivity channels for receiving and transmitting information.” *Lin*, [0104]. For example, when the user selects a first credit card or bank payment account (i.e., *the particular payment source is the first account associated with the first financial institution*), the “‘transaction information’ ... may be transmitted by the payee device 10 to one or more financial servers 100 for verification of the account information and the subsequent authorization and processing of the requested payment.” *Lin*, [0126];

Lipoff, ¶¶128-129; *see also* *Lin* [0012] (“[T]he electronic device may transmit a request including the extracted payment account information to one or more financial servers for the authorization of a payment using the extracted information.”).

Lin discloses that, if the payor is using a credit card as the payment source, a “credit card verification server may process the transaction information 98 to determine whether a charge to the payor’s credit card account in the amount specified in the payment request may be authorized.” *Lin*, [0128]. Similarly, *Lin* discloses that if the payor uses a bank account as the payment source, the “transaction may be processed by multiple bank servers.” *Lin*, [0129]. And *Lin* explains that these “communication[s] with the financial servers 100 may be accomplished through one or more of the communication interfaces.” *Lin*, [0126]. A POSITA would have thus recognized that *Lin* discloses *select[ing] the first communication interface as a particular communication interface and to establish a communication link between the first communication interface and the first device associated with the first financial institution*. Lipoff, ¶130; *Lin*, [0126].

As explained, a POSITA would have also been motivated to modify *Lin*’s transaction application in view of *Rackley* to incorporate balance transfer functionality. *Supra* §VII.A.3. In *Lin*’s modified application, when the transfer occurs between accounts of the same user (i.e., the first member is the same as the

second member), this communication interface would operate in the same manner as when the transfer is between accounts of different users. Lipoff, ¶131. As *Lin* explains, “[o]nce the crediting account is selected on the payee device 10, the requested payment amount, the payment account information 96, and the selected crediting account, collectively referred to as the ‘transaction information’ ... [is] transmitted by the payee device 10 to one or more financial servers 100.” *Lin*, [0126]. When a user initiates a balance transfer, the payee device would be the same as the payor device, and the crediting account would be an account held by the payor. Lipoff, ¶131.

- n. **[1.b.xii]: “control code ... configured to select the second communication interface as the particular communication interface and to establish a communication link between the second communication interface and the second device associated with the second financial institution on behalf of the first member when the particular payment source is the second account associated with the second financial institution, and”**

Lin discloses [1.b.xii]. Lipoff, ¶132.

As explained for [1.b.xi], *Lin* discloses *control code configured to select [a] ... communication interface as a particular communication interface and to establish a communication link between the ... communication interface and [a] ... device associated with [a financial provider] on behalf of the first member.*

Supra §VII.A.4.m. A similar rationale applies to this limitation. Lipoff, ¶133.

A POSITA would have recognized that when the payor (which may also be the payee) selects a second account, including either a first or second bank account, as a payment source (i.e., *the particular payment source is the second account associated with the second financial institution*), *Lin* would select the second communication interface as the particular communication interface and ... establish a communication link between the second communication interface and the second device associated with the second financial institution on behalf of the first member. Lipoff, ¶134. As explained for [1.b.ix], *Lin* discloses a payment source identifier including *the second account associated with the second financial institution* that may be selected as a source account. *Supra* §VII.A.4.k; *Lin*, [0218], [0219]. And as explained, the selected communication interface would correspond to the selected banking entity. Lipoff, ¶134. This holds true when the funds are transferred to another account held by the payor. *Supra* §VII.A.4.m [1.b.xi].

- o. **[1.b.xiii]: “control code ... configured to select the third communication interface as the particular communication interface and to establish a communication link between the third communication interface and the third device associated with the third-party entity when the particular payment source is the third-party account, and”**

Lin discloses [1.b.xiii]. Lipoff, ¶135.

As explained for [1.b.xi], *Lin* discloses *control code configured to select [a] ... communication interface as a particular communication interface and to*

establish a communication link between the ... communication interface and [a] ... device associated with [a financial provider] on behalf of the first member.

Supra §VII.A.4.m. A similar rationale applies to this limitation. Lipoff, ¶136.

A POSITA would have recognized that when the payor (which may also be the payee) selects an iTunes® account (or similar type account) as the payment source (i.e., *the particular payment source is the third-party account*), *Lin select[s] the third communication interface as the particular communication interface and ... establish[es] a communication link between the third communication interface and the third device associated with the third-party entity.* Lipoff, ¶137. As explained for [1.b.ix], *Lin* discloses a payment source identifier including *a third-party account identifier identifying a third-party account associated with the third-party entity and belonging to the first member* that may be selected as a source account. *Supra* §VII.A.4.k; *Lin*, [0215], [0253]. The selected communication interface corresponds to the other form of financial server, such as a “server managed by the iTunes® online server.” *Lin*, [0132]. This holds true when the funds are transferred to another account held by the payor. *Supra* §VII.A.4.m [1.b.xi].

- p. [1.b.xiv]: “control code ... configured to request electronic transfer of the payment amount from the particular payment source to the payee account using the selected particular communication interface; and”

The *Lin-Rackley* combination renders obvious [1.b.xiv]. Lipoff, ¶138.

Lin’s system “specifically rel[ies] on the initiation of a transaction by a payee, such as via sending a payment request (e.g., 384) from the device 10.” *Lin*, [0237]. But, according to *Lin*, “the payor may initiate the transaction as well.” *Id.* As discussed above, a POSITA would have been motivated to modify *Lin*’s application in view of *Rackley* to incorporate a balance transfer functionality. *Supra* §VII.A.3. In this circumstance, the user (i.e., the first member) is both the payor and the payee. *Rackley*, [0447]. Accordingly, under the *Lin-Rackley* combination, the user’s device requests electronic transfer of the payment amount from one of the user’s accounts (i.e., the particular payment source) to another (i.e., the payee account). Lipoff, ¶139.

As explained for [1.b.xi], [1.b.xii], and [1.b.xiii], *Lin* discloses control code configured to select one of the first, second, or third communication interfaces as the particular communication interface based on the particular payment source. *Supra* §§VII.A.4.m, VII.A.4.n, VII.A.4.o. By selecting the particular payment source, the corresponding particular communication interface is also necessarily selected. Lipoff, ¶140. Thus, *Lin* renders obvious *control code ... configured to*

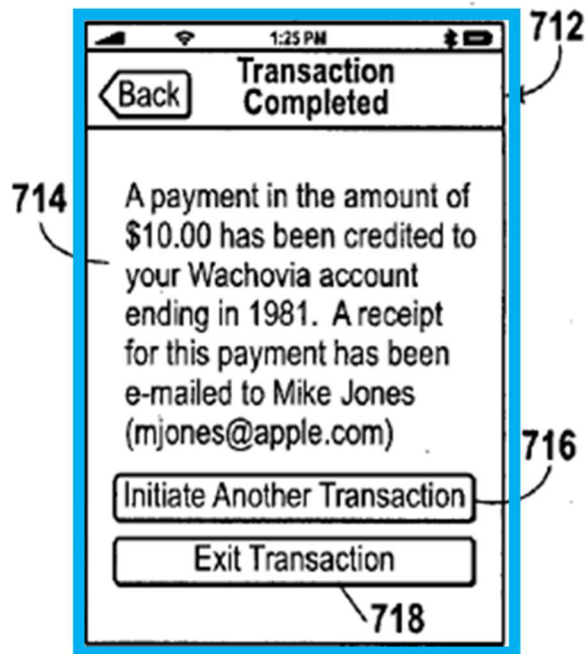
request electronic transfer of the payment amount from the particular payment source to the payee account using the selected particular communication interface.

Lipoff, ¶¶140-141.

- q. [1.b.xv]: “notification code configured to generate a notification indicating an electronic transfer to the second member, and configured to transmit the notification over a communication network to a computing device in real time.”

Lin discloses [1.b.xv]. Lipoff, ¶142.

Lin discloses *notification code configured to generate a notification indicating an electronic transfer to the second member*. For example, *Lin* discloses that “upon the successful completion of a transaction, the **screen 712** may be displayed on the payee device 10 ... includ[ing] the notification message 714.” *Lin*, [0236]. The notification message is shown below:



Lin, Fig. 14J (partially reproduced). This notification message is *a notification indicating an electronic transfer to the second member* because it “inform[s] the payee that the requested payment amount 680 has been credited to the selected crediting account 216.” *Lin*, [0236]; Lipoff, ¶143.

According to *Lin*, once the transfer is complete, “a payment receipt in an electronic form may [also] be e-mailed to the payor using the e-mail address provided in the payor identification information 678 on the screen 674.” *Lin*, [0236]. In the context of a balance transfer, because the payor’s device and payee’s device are the same, both the notifications to payor and to the payee are generated from the same device (i.e., the claimed “system”). Lipoff, ¶144.

Lin further discloses *transmit[ting] the notification over a communication network to a computing device in real time*. Lipoff, ¶145. For example, as explained, “upon the successful completion of a transaction, the screen 712[, which] ... include[s] the notification message 714” is “displayed on the payee device 10.” *Lin*, [0236]. *Lin* also discloses sending communications using an unstructured supplementary service data (“USSD”) interface to “facilitate the transmission of real time text messages over GSM signaling channels.” *Lin*, [0109].

As discussed above, *Lin* discloses that “a payment receipt in an electronic form may [also] be e-mailed to the payor using the e-mail address provided in the payor identification information 678 on the screen 674.” *Lin*, [0236]. A POSITA would have understood that an e-mail would have been received by the payor at any computing device with access to e-mail, including both the user’s mobile phone and/or a desktop computer. Lipoff, ¶146. A POSITA would have further understood that an e-mail would typically require a communication network to carry out the transmission. *Id.*

Indeed, an e-mail providing receipt of a balance transfer would be consistent with the goal of providing “current” information to a user about financial transactions. Lipoff, ¶147; *Rackley*, [0024]. As discussed above, a user may require a balance transfer to be able to complete a transaction with another party (e.g., to

ensure sufficient funds in a single account), and it would thus be “absolutely essential” for the account balance information to be current. Lipoff, ¶147; *Rackley*, [0024]-[0025]. A POSITA would have understood that an e-mail receipt accomplishes this consumer requirement. Lipoff, ¶147.

5. Claim 2

- a. “The system of claim 1, wherein the system is a mobile device, and the program code is an application on the mobile device.”**

Lin discloses this additional limitation. Lipoff, ¶148.

As explained for [1.a.i], *Lin* discloses and/or renders obvious a *program code* in the form of a transaction application. *Supra* §VII.A.4.b. *Lin*’s transaction application is stored on a storage device 54 of device 10, which *Lin* explains may be “a handheld device incorporating the functionality of one or more portable devices, such as ... a cellular phone.” *Lin*, [0085]. A POSITA would have recognized that when the memory is stored on this “portable device” the *system is a mobile device* within the meaning of the ’307 patent. Lipoff, ¶149; *see* Ex-1001, 4:62-65 (describing “mobile devices, such as smart phones”). *Lin* thus discloses *the program code [being] an application on the mobile device*.

Lin further explains that this device 10 includes a “central processing unit (CPU) 50” that may include “a single processor or ... a plurality of processors.” *Lin*, [0100]. This CPU would be *configured to execute the program code* and

execute the various steps of claim 1. Lipoff, ¶150. For example, *Lin* explains that the CPU (in cooperation with circuitry) “provide[s] the processing capability required to execute ... application programs, the GUI 28, and any other functions provided on the device 10.” *Lin*, [0100].

6. Claim 3

- a. **“The system of claim 1, wherein the system is a server, and the program code is server code on the server.”**

The *Lin-Rackley* combination renders obvious claim 3. Lipoff, ¶151.

As explained for [1.a.i], *Lin* discloses a *program code* in the form of a transaction application, which may be stored on a mobile device. *Supra* §VII.A.4.b. *Rackley* discloses a similar system in which “a transaction is typically initiated at a mobile device,” but further discloses that these transactions can “be initiated by the user 12 using [a] web application.” *Rackley*, [0252]. Accordingly, users can “access the MFTS via the Internet 120 using a web browser on a computer 140 (FIG. 2), as opposed to a mobile device.” *Rackley*, [0310]; Lipoff, ¶152.

A POSITA would have been motivated to modify *Lin* to incorporate *Rackley*’s web application functionality to improve user accessibility. Lipoff, ¶153. For example, *Rackley* explains that “mobile devices typically have smaller display screens” and thus “provide less information to the user than a web view.” *Rackley*,

[0180]. To address this, *Rackley* provides that transaction details may be obtained not only “through a function of the mobile device,” but “through web views using a computer” as well. *Id.* A POSITA would thus have recognized that this additional web application feature improves user accessibility by providing an alternative and more user-friendly viewing experience. Lipoff, ¶153. Indeed, *Lin* likewise relies on a “graphical user interface viewable on the display” of a mobile device (*Lin*, [0014]) and thus could be improved in a similar way. Lipoff, ¶153.

A POSITA would have had a reasonable expectation of success in implementing *Rackley*’s teaching of a web application in *Lin*. Indeed, *Rackley* provides a detailed explanation of the software provided in its MFTS server. *Rackley*, [0210], Fig. 3B. Moreover, implementing a mobile application in other forms, such as a web application, was a straightforward endeavor. Lipoff, ¶154. *Lin* invites this form of modification, envisioning that its device 10 can be “a non-portable device, such as a desktop computer,” indicating its interfaces are adaptable to a larger screen format. *Lin*, [0121]. Implementing *Rackley*’s web applications in *Lin* would thus have been the straightforward application of known, conventional techniques used according to their known functions to yield predictable results. Lipoff, ¶154.

In *Rackley*, “web applications 154 reside on the server of the MFTS.” *Rackley*, [0183]. This server includes “data storage in the form of disk drives and

random access memory (RAM)” and “one or more processors and/or central processing units (CPU)” for storing and running these web applications. *Rackley*, [0130]. A POSITA would have recognized that when modifying *Lin* to include *Rackley*’s web application features, *Lin* would similarly include a server for storing and running the web application. Lipoff, ¶155. Indeed, *Lin* already discloses “an iTunes® server 818 configured to maintain the respective iTunes® accounts belonging to the payor and the payee,” similar to *Rackley*’s MFTS server. *Lin*, [0257].

Using *Rackley*’s web application feature, the various mobile payment platform functions explained above with respect to *Lin*’s transaction application would be carried out at a server for users conducting transactions via the web interface. Lipoff, ¶156. For example, the web application would include program code enabling the server to communicate with various financial providers and thus would include the *first*, *second*, and *third communication interface[s]* of [1.b.ii], [1.b.iii], and [1.b.iv]. *Supra* §VII.A.4.d; VII.A.4.e; VII.A.4.f. Similarly, the web application would *select[] the first communication interface as a particular communication interface and establish[] a communication link between the first communication interface and the first device* to complete a transaction (e.g., if a credit card is selected as a payment source). Here, the communication link is formed directly between the server and the financial institution. *See Rackley*,

[0187] (describing a “special secured dedicated network path 160 ... between the MFTS 18 and various FSPs”). A POSITA would thus have recognized that, when incorporating this web application functionality in *Lin*, *the system is a server, and the program code is server code on the server*. Lipoff, ¶156.

7. Claim 4

- a. “The system of claim 1, wherein the first account includes a credit card account, a debit card account, a bank account, a loan account, an international account, or a commodity account.”**

The *Lin-Rackley* combination renders obvious claim 4. Lipoff, ¶157.

As explained for [1.b.vi], *Lin* discloses *first interface code configured to assist the first member to register a set of one or more payment sources*. *Supra* §VII.A.4.h. *Lin* envisions communications with various different “types of financial servers 100 to which ... transaction data 98 is transmitted.” *Lin*, [0127], [0132]. Accordingly, *Lin* is not limited to the specific financial institutions disclosed. *Lin*, Fig. 5A (including element 144 for “Other” account types), [0326] (explaining “additional devices or payment instruments may also be included”); Lipoff, ¶158. For example, *Lin* teaches financial service providers that provide payment sources including “a credit card account,” and “a bank account.” *Lin*, [0127]. *Lin*’s Figs. 5A and 5B show account information for “Credit/Debit Cards,” “Banking,” “iTunes,” and “Other.” Thus, *Lin* discloses a payment source being *a credit card account, a debit card account, [and] a bank account*. Lipoff, ¶158

Rackley teaches that financial service providers that provide payment sources “include banking entities such as ... savings and loans” and thus discloses a payment source being *a loan account*. *Rackley*, [0189]; Lipoff, ¶159. Moreover, *Rackley* “contemplates making payments ... across country, and across national borders (of course within the confines of applicable currency regulations) without physically handling of cash or checks.” *Rackley*, [0373]. A POSITA would have recognized that these forms of international transactions across different currencies would include *an international account*. Lipoff, ¶159.

A POSITA would have been motivated to incorporate *Rackley*’s additional loan and international account types into *Lin* to provide additional options to a user and to increase the forms of payments available. Lipoff, ¶160. As *Rackley* recognizes, consumers “must be able to ‘Pay Anyone’, at any time, in any of a number of different ways.” *Rackley*, [0024]. Adding *Rackley*’s additional account types to *Lin*’s transaction application would have improved accessibility and broadened the customer base across *Lin*’s platform. Lipoff, ¶160.

A POSITA would have also had a reasonable expectation of success in incorporating *Rackley*’s additional account types into *Lin*’s system. Lipoff, ¶161. Indeed, *Lin* envisions different account types, recognizing “the type or types of financial servers 100 to which ... the transaction data 98 is transmitted may depend on the type of payment account selected.” *Lin*, [0127]. Adding these

different payment sources to *Lin*'s system to allow a user to access additional financial accounts would have been merely the straightforward application of known, conventional techniques used according to their known functions to yield predictable results. Lipoff, ¶161.

8. Claim 5

- a. “The system of claim 1, wherein the second member is the first member, the particular payment source is one of the first account associated with the first financial institution or the second account associated with the second financial institution, and the payee account is the third-party account associated with the third-party entity and belonging to the first member.”**

The *Lin-Rackley* combination renders obvious claim 5. Lipoff, ¶162.

As discussed above, a POSITA would have been motivated to modify *Lin*'s application in view of *Rackley* to incorporate a balance transfer functionality.

Supra §VII.A.3; *Rackley*, [0447]. During a balance transfer, the second member is the first member. Lipoff, ¶163. That is, the payor and payee are the same user. *Id.*

And as further discussed above, this balance transfer can be used to move funds between a bank account (i.e., financial institution) and third-party iTunes® account. *Supra* §VII.A.3. The *Lin-Rackley* combination renders this claim obvious. Lipoff, ¶163.

9. Claim 6

a. “The system of claim 1, wherein the payee identifier is a telephone number.”

The *Lin-Rackley* combination renders obvious claim 6. Lipoff, ¶164.

As explained for [1.b.viii], *Lin-Rackley* renders obvious *enabl[ing] the first member to select a payee identifier*. *Supra* §VII.A.4.j. *Lin-Rackley* further renders obvious a *payee identifier [being] a telephone number*. For example, *Rackley* discloses “selecting/entering a payee by entering/selecting a mobile phone number associated with a payee.” *Rackley*, [0374]; Lipoff, ¶165.

A POSITA would have been motivated to include a telephone number as the payee identifier to provide users with additional means for identifying a payee, as disclosed in *Rackley*. Lipoff, ¶166. As Mr. Lipoff explains, a payor may not necessarily know the iTunes® account identifier of a payee but may have the payee’s mobile phone number. *Id.* This would likewise apply when a user performs a balance transfer, where a user may be able to more quickly recall their own telephone number. *Id.* The transaction application may be hosted on a cellular phone (*Lin*, [0085]) and thus the payor may have access to mobile phone numbers of various contacts. Lipoff, ¶166.

A POSITA would have had a reasonable expectation of success in implementing a mobile phone number as an identifier. Lipoff, ¶167. For example, *Lin* acknowledges that “information indicating the identity of the payee ... may

include text data corresponding to the name of the payee, an e-mail address belonging to and/or identifying the payee, or any other type of suitable identification information.” *Lin*, [0122]. A POSITA would have understood that a telephone number is “any other type of suitable identification” of the payee. Lipoff, ¶167. Implementing this functionality in *Lin*’s system would have been merely the straightforward application of known, conventional techniques used according to their known functions to yield predictable results. *Id.*

10. Claim 7

a. “The system of claim 1, wherein the payee identifier is a contact from an address book.”

The *Lin-Rackley* combination renders obvious claim 7. Lipoff, ¶168.

As explained for [1.b.viii], *Lin* discloses and/or *Lin-Rackley* renders obvious *enabl[ing] the first member to select a payee identifier. Supra* §VII.A.4.j. *Lin-Rackley* further renders obvious a *payee identifier [being] a contact from an address book*. Lipoff, ¶169.

Rackley discloses a “‘Paying by Name’ option” through which “a screen is displayed on the mobile device comprising a list of pre-entered payees, e.g. screen 1910, with names Jane Bennett, John Doe, Robert Johnson, Carol Jones, etc.” *Rackley*, [0377]. *Rackley*’s web application also “allows users to ... add/edit/view/delete payees.” *Rackley*, [0210]. A POSITA would have understood that this “list of pre-entered payees” is an address book and that the “payees or

billing entities” identified, added, edited, and deleted in the web application are contacts in this address book. Lipoff, ¶170. Furthermore, a *payee identifier [being] a contact from an address book* was well known and routine in the prior art. *See Tumminaro*, [0217] (explaining that to avoid the “need to separately enter in the telephone number ... a hosted address book is used where the user would set up their address book with the service and then that address book would be available to them through any device that they use”).

A POSITA would have been motivated to include *Rackley*’s list of pre-entered payees (i.e., address book) into *Lin*’s system. Lipoff, ¶171. A POSITA would have understood that *Rackley*’s list of pre-entered payees simplifies and expedites the method by which users can identify payees. *Id.* Use of previously stored contacts also increases security by ensuring that a payor only transfers money to known contacts, minimizing the risk of fraud. *Id.* A POSITA would have thus recognized that this functionality provides the user with a better user experience and increased security. *Id.*

A POSITA would have had a reasonable expectation of success in using a contact from an address book to identify a payee. Lipoff, ¶172. A POSITA would have recognized that using a contact from an address book to identify a payee was well known and routine in the prior art. *Id.*; *see Tumminaro*, [0217]. Implementing this functionality in *Lin*’s system to identify a payee would have been merely the

straightforward application of known, conventional techniques used according to their known functions to yield predictable results. Lipoff, ¶172.

11. Independent Claim 8

a. [8.pre]: “A method, comprising:”

Lin discloses “various systems, methods, and electronic devices configured to initiate and process [peer-to-peer] transactions.” *Lin*, [0002]. *Lin* discloses “[a] method for conducting a group transaction” and thus discloses a *method*. See *Lin*, Claim 1; Lipoff, ¶173.

b. [8.a.i]: “storing program code associated with a service provided by a third-party entity to a plurality of members who register with the service provided by the third-party entity,”

[8.a.i] recites substantively the same limitations as [1.a.i], which *Lin* discloses and/or the *Lin-Rackley* combination renders obvious as discussed for [1.a.i]. Lipoff, ¶174.

c. [8.a.ii]: “the program code including a first communication interface configured to communicate with a first device associated with a first financial institution on behalf of the plurality of members,”

[8.a.ii] recites substantively the same limitations as [1.b.ii], which *Lin* discloses as discussed for [1.b.ii]. Lipoff, ¶175.

- d. **[8.a.iii]: “including a second communication interface configured to communicate with a second device associated with a second financial institution on behalf of the plurality of members, and”**

[8.a.iii] recites substantively the same limitations as [1.b.iii], which *Lin* discloses as discussed for [1.b.iii]. Lipoff, ¶176.

- e. **[8.a.iv]: “including a third communication interface configured to communicate with a third device associated with the third-party entity;”**

[8.a.iv] recites substantively the same limitations as [1.b.iv], which *Lin* discloses as discussed for [1.b.iv]. Lipoff, ¶177.

- f. **[8.b.i]: “presenting a login interface to request security credentials from a first member of the plurality of members before the first member can access the service, the first member having previously registered with the service;”**

[8.b.i] recites substantively the same limitations as [1.b.v], which *Lin* discloses and/or the *Lin-Rackley* combination renders obvious as discussed for [1.b.v]. Lipoff, ¶178.

- g. **[8.b.ii]: “presenting a first interface to assist the first member to register a set of one or more payment sources for a future transaction, including to register a first account associated with the first financial institution in the set of one or more payment sources and to register a second account associated with the second financial institution in the set of one or more payment sources, the third-party entity being different than the first financial institution and different than the second financial institution;”**

[8.b.ii] recites substantively the same limitations as [1.b.vi], which *Lin* discloses and/or the *Lin-Rackley* combination renders obvious as discussed for [1.b.vi]. Lipoff, ¶179.

- h. **[8.b.iii]: “presenting a second interface to enable the first member to select a payment function identifier from a set of function identifiers to navigate to a payment function, the payment function configured to assist the first member to request sending a payment amount to a payee account, the payee account being a third-party account associated with the third-party entity and belonging to a second member of the plurality of members, the second member having previously registered with the service;”**

[8.b.iii] recites substantively the same limitations as [1.b.vii], which *Lin* discloses as discussed for [1.b.vii]. Lipoff, ¶180.

- i. **[8.b.iv]: “presenting a third interface to enable the first member to select a payee identifier identifying the payee account;”**

[8.b.iv] recites substantively the same limitations as [1.b.viii], which *Lin* discloses and/or the *Lin-Rackley* combination renders obvious as discussed for [1.b.viii]. Lipoff, ¶181.

- j. **[8.b.v]: “presenting a fourth interface to enable the first member to select a payment source identifier from a set of one or more payment source identifiers, the set of one or more payment source identifiers identifying a particular set of one or more payment sources, the particular set of payment source identifiers capable of including a first account identifier identifying the first account associated with the first financial institution, a second account identifier identifying the second account associated with the second financial institution, and a third-party account identifier identifying a third-party account associated with the third-party entity and belonging to the first member;”**

[8.b.v] recites substantively the same limitations as [1.b.ix], which *Lin* discloses as discussed for [1.b.ix]. Lipoff, ¶182.

- k. **[8.b.vi]: “presenting a fifth interface to enable the first member to identify the payment amount to be transferred to the payee account;”**

[8.b.vi] recites substantively the same limitations as [1.b.x], which *Lin* discloses and/or the *Lin-Rackley* combination renders obvious as discussed for [1.b.x]. Lipoff, ¶183.

- l. **[8.b.vii]: “selecting the first communication interface as a particular communication interface and establishing a communication link between the first communication interface and the first device associated with the first financial institution on behalf of the first member when the particular payment source is the first account associated with the first financial institution;”**

[8.b.vii] recites substantively the same limitations as [1.b.xi], which *Lin* discloses as discussed for [1.b.xi]. Lipoff, ¶184.

- m. **[8.b.viii]: “selecting the second communication interface as the particular communication interface and establishing a communication link between the second communication interface and the second device associated with the second financial institution on behalf of the first member when the particular payment source is the second account associated with the second financial institution;”**

[8.b.viii] recites substantively the same limitations as [1.b.xii], which *Lin* discloses as discussed for [1.b.xii]. Lipoff, ¶185.

- n. **[8.b.ix]: “selecting the third communication interface as the particular communication interface and establishing a communication link between the third communication interface and the third device associated with the third-party entity when the particular payment source is the third-party account;”**

[8.b.ix] recites substantively the same limitations as [1.b.xiii], which *Lin* discloses as discussed for [1.b.xiii]. Lipoff, ¶186.

- o. [8.b.x]: “requesting electronic transfer of the payment amount from the particular payment source to the payee account using the selected particular communication interface;”**

[8.b.x] recites substantively the same limitations as [1.b.xiv], which the *Lin-Rackley* combination renders obvious as discussed for [1.b.xiv]. Lipoff, ¶187.

- p. [8.b.xi]: “generating a notification indicating an electronic transfer to the second member; and”**

[8.b.xi] recites substantively the same limitations as [1.b.xv], which *Lin* discloses as discussed for [1.b.xv]. Lipoff, ¶188.

- q. [8.b.xii]: “transmitting the notification over a communication network to a computing device in real time.”**

[8.b.xii] recites substantively the same limitations as [1.b.xv], which *Lin* discloses as discussed for [1.b.xv]. Lipoff, ¶189.

12. Claim 9

- a. “The method of claim 8, wherein the method is performed by a mobile device executing an application on the mobile device.”**

Claim 9 recites substantively the same additional limitations as claim 2, which *Lin* discloses as discussed for claim 2. Lipoff, ¶190.

13. Claim 10

- a. “The method of claim 8, wherein the method is performed by a server executing server code on the server.”**

Claim 10 recites substantively the same additional limitations as claim 3, which the *Lin-Rackley* combination renders obvious as discussed for claim 3. Lipoff, ¶191.

14. Claim 11

- a. “The method of claim 8, wherein the first account includes a credit card account, a debit card account, a bank account, a loan account, an international account, or a commodity account.”**

Claim 11 recites substantively the same additional limitations as claim 4, which the *Lin-Rackley* combination renders obvious as discussed for claim 4. Lipoff, ¶192.

15. Claim 12

- a. “The method of claim 8, wherein the second member is the first member, the particular payment source is one of the first financial account associated with the first financial institution or the second account associated with the second financial institution, and the payee account is the third-party account associated with the third-party entity and belonging to the first member.”**

Claim 12 recites substantively the same additional limitations as claim 5, which the *Lin-Rackley* combination renders obvious as discussed for claim 5. Lipoff, ¶193.

16. Claim 13

- a. “The method of claim 8, wherein the payee identifier is a telephone number.”**

Claim 13 recites substantively the same additional limitations as claim 6, which the *Lin-Rackley* combination renders obvious as discussed for claim 6. Lipoff, ¶194.

17. Claim 14

- a. “The method of claim 8, wherein the payee identifier is a contact from an address book.”**

Claim 14 recites substantively the same additional limitations as claim 7, which the *Lin-Rackley* combination renders obvious as discussed for claim 7. Lipoff, ¶195.

B. Ground 2: Claims 1-14 Are Rendered Obvious by *Lin* and *Rackley*, in Further View of *Tumminaro*

The *Lin-Rackley-Tumminaro* combination renders obvious claims 1-14. Lipoff, ¶¶61, 196-208. As explained in Ground 1, the *Lin-Rackley* combination renders obvious claims 1-14. To the extent the Board determines the communication interface limitations of claims 1-14 are not rendered obvious by the *Lin-Rackley* combination, the *Lin-Rackley-Tumminaro* combination renders each such limitation obvious. *Id.*

1. Overview of *Tumminaro*

Tumminaro discloses “[a] mobile payment platform ... [that] provides a fast, easy way to make payments [on] users of mobile devices.” *Tumminaro*, Abstract. In exemplary embodiments, *Tumminaro* teaches “systems and techniques for effectuating financial transactions via mobile devices.” *Tumminaro*, [0003]. *Tumminaro* appreciated the “great need for a system to permit mobile phones to send and receive payment, just like cash, and provide other financial and mobile banking transactions.” *Tumminaro*, [0010]; Lipoff, ¶60.

2. Independent Claim 1

a. Communication Interface Limitations ([1.b.ii], [1.b.iii], [1.b.iv], [1.b.xi], [1.b.xii], and [1.b.xiii])

To the extent that the *Lin-Rackley* combination does not disclose or render obvious communicating with different communication interfaces for each of the credit card company, the financial institution, and the third-party entity ([1.b.ii], [1.b.iii], [1.b.iv], [1.b.xi], [1.b.xii], and [1.b.xiii]), the *Lin-Rackley-Tumminaro* combination renders this limitation obvious. Lipoff, ¶¶197-202. The *Lin-Rackley* combination renders obvious the other limitations of claim 1 for the reasons discussed above. *Supra* §VII.A.4.

Tumminaro discloses “systems and techniques for effectuating financial transactions via mobile devices, such as mobile or cellular phones, and more particularly to a mobile, individualized payment transfer infrastructure and method

for transferring payment.” *Tumminaro*, [0003]. *Tumminaro* discloses the use of transaction partners (e.g., debit cards) to fund transactions. *Tumminaro*, [0254]. “[T]here may be multiple such partner entities that interface with the mobile payment system or network.” *Id.* According to *Tumminaro*, “[e]ach partner system may have a different electronic interfacing scheme, and the mobile payment system will communicate using the appropriate application program interface (API) for each partner.” *Tumminaro*, [0255]. *Tumminaro* teaches that its interfacing scheme “allows easy integration of financial partners (e.g., banking partners, card partners) to mobile and other consumer partners (e.g., mobile phone carriers).” *Id.*; Lipoff, ¶203.

A POSITA would have been motivated to include *Tumminaro*’s APIs in *Lin*’s system to ensure that each partner system has a different electronic interfacing scheme for communicating with a transaction application on a mobile device. Lipoff, ¶204. *Tumminaro* teaches that interfacing with different financial providers through different APIs “allows easy integration of financial partners (e.g., banking partners, card partners) to mobile and other consumer partners (e.g., mobile phone carriers).” *Tumminaro*, [0255]. Furthermore, the prior art recognized that “consumers require strong security in using their devices.” *Rackley*, [0024]. A POSITA would have understood that *Tumminaro*’s individual APIs enable easy—and more importantly secure—integration with different financial partners.

Lipoff, ¶204. Indeed, as Mr. Lipoff explains, individualized interfaces improve security by tailoring the connection requirements to the particular partner. *Id.*

A POSITA would have had a reasonable expectation of success in using *Tumminaro*'s individual APIs in *Lin*'s system. Lipoff, ¶205. A POSITA would have understood that it was common for each financial partner to have their own, unique security protocols and requirements. *Id.*; *Rackley*, [0187]. Implementing this functionality in *Lin*'s system would have been merely the straightforward application of known, conventional techniques used according to their known functions to yield predictable results. Lipoff, ¶205.

3. Claims 2-7

The *Lin-Rackley-Tumminaro* combination renders obvious the additional limitations recited in claims 2-7 for the same reasons discussed for the *Lin-Rackley* combination. *Supra* §§VII.A.5-VII.A.10; Lipoff, ¶206.

4. Independent Claim 8

The *Lin-Rackley-Tumminaro* combination renders obvious independent claim 8 for the same reasons discussed for claim 1. *Supra* §VII.B.2; Lipoff, ¶207.

5. Claims 9-14

The *Lin-Rackley-Tumminaro* combination renders obvious the additional limitations recited in claims 9-14 for the same reasons discussed for the *Lin-Rackley* combination. *Supra* §§VII.A.12-VII.A.17; Lipoff, ¶208.

VIII. MANDATORY NOTICES

A. Real Party-in-Interest

The real parties-in-interest are Samsung Electronics Co., Ltd., and Samsung Electronics America, Inc.

B. Related Matters

PayGeo, LLC, asserted the '307 patent in the following litigation:

PayGeo, LLC v. Samsung Electronics Co., Ltd., and Samsung Electronics America, Inc., Case No. 2:25-cv-00334-RWS-RSP (E.D. Tex.).

The '307 patent claims priority to U.S. Patent Application No. 13/185,432 which issued as U.S. Patent No. 8,554,671.

U.S. Patent Application No. 18/746,599, filed June 18, 2024, currently pending, is a continuation of U.S. Patent Application No. 17/398,789, filed on August 10, 2021, now U.S. Patent No. 12,014,347, which is a continuation of the '307 patent.

The '307 patent is a continuation of U.S. Patent Application No. 17/009,551, filed September 1, 2020, now U.S. Patent No. 10,937,018, which is a continuation of U.S. Patent Application No. 16/882,006, filed on May 22, 2020, now U.S. Patent No. 10,796,296, which is a continuation of U.S. Patent Application No. 15/786,470, filed on October 17, 2017, now U.S. Patent No. 10,733,593, which is a continuation-in-part of U.S. Patent Application No. 14/691,499, filed on April 20,

2015, now abandoned, which is a continuation of U.S. Patent Application No.

13/974,837, filed on Aug. 23, 2013, now abandoned, which is a continuation-in-part of U.S. Patent Application No. 13/185,432, filed on July 18, 2011, now U.S. Patent No. 8,554,671.

Petitioner is concurrently filing Petitions for *Inter Partes* Review of U.S. Patent Nos. 10,796,296 and 10,937,018.

C. Lead and Back-Up Counsel, and Service Information

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Please address all correspondence to counsel at the addresses above. Petitioner consents to electronic service by email at the above email addresses.

IX. GROUNDS FOR STANDING

Petitioner certifies that the '307 patent is available for IPR and that Petitioner is not barred or estopped from requesting IPR challenging the patent claims on the grounds identified herein.

X. CONCLUSION

For the reasons set forth above, Petitioner requests institution of *inter partes* review and cancellation of each challenged claim. The Office may charge any required fees to Deposit Account No. 06-0916.

Date: October 1, 2025

Respectfully submitted,

By: /Joshua L. Goldberg/
Joshua L. Goldberg
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CERTIFICATION OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24, Petitioner certifies that the word count of Petitioner's Petition for *Inter Partes* Review (exclusive of any table of contents, table of authorities, mandatory notices under § 42.8, certificates of service and word count, and list of exhibits or claim listing) as measured by Microsoft Word is 13,204.

Date: October 1, 2025

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies that, in accordance with 37 C.F.R. § 42.6(e) and 37 C.F.R. § 42.105(a), the **Petition for *Inter Partes* Review, the associated powers of attorney, and Exhibits 1001–1012** were served via FedEx Priority Overnight on October 1, 2025, on the correspondence address of record below indicated in the Patent Office’s Patent Center for U.S. Patent No. 11,087,307:

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