

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,

Petitioner,

v.

FINTIV, INC.,

Patent Owner.

Case No. IPR2023-00398/IPR2023-00399
U.S. Patent Nos 10,438,196/ 9,208,488

Patent Owner Demonstratives

"DEMONSTRATIVE EXHIBIT - NOT EVIDENCE"

Dr. Houh is Not A POSITA

Before the Priority Date of the '196 Patent (November, 2011), the only experience Dr. Houh could recall with electronic payment systems involved connecting a website for his college alumni association to PayPal's platform using model code provided by Paypal:

POR, 9

Dr. Houh's experience with mobile payment systems since the Priority Date (post-2011) adds little to his qualifications to be an expert in this matter. His only additional experience was again taking model code and integrating it into a different website for "Einstein's Workshop" in 2012 (Ex. 2004 at 22:9-25:5), and "setting up" a point of sale system for the same company using canned interfaces provided by "Quickbooks Point of Sale" software. Ex. 2004 at 28:10-30:20.

POR, 10

"[t]he Board [has] within its discretion to weigh the credibility of expert testimony" *Shoes by Firebug LLC v. Stride Rite Children's Grp., LLC*, 962 F.3d 1362, 1372 (Fed. Cir. 2020)

Q. So I'm looking at your CV -- not your CV, I'm sorry, your declaration in this matter, Exhibit 1003, and the last sentence of Paragraph 18. I wonder if you can pull that up.

A. Okay.

Q. So the last sentence says, "Starting in the early 2000s, I integrated payment systems with various websites."

A. Yes, I see that.

Q. What was the first website that you worked on where you integrated a payment system?

A. I don't remember if this was the first, but I think I was very heavily involved with the MIT Club of Boston, and I helped move the payment from, you know, mail-in checks to online payments at some point during my involvement with the MIT Club of Boston.

Q. Can you tell me what was entailed in integrating the payment system into the website of the MIT Club of Boston?

A. I think -- I think the first one we did was we integrated PayPal payments. So I had to study the API, figure out what workflow we wanted to use and then -- and then integrate that into the website of the club so that we would accept online payments and have a record of that and be able to track -- track it. (Ex. 2004 at 19:2-20:4) (emphasis added).

Q. ... Did PayPal provide model code for integrating their API with the website?

A. Yeah, I think they did. I think I said that earlier, that, you know, you had to do specific things to make sure you had the right account, that we would get the money and not someone else. And so whatever -- whatever the API required, I -- I followed that and, you know, eventually got -- you know, we did get it working. Well, I did get it working. And this was really just me. (Ex. 2004 at 21:22-22:8) (emphasis added).

Q. Other than the MIT Club of Boston website, did you integrate payment systems into any other website before 2012?

A. You know, I may have done something with the MIT Enterprise Forum of Cambridge when I was involved in that group, but I don't -- I don't recall specifically. (Ex. 2004, 25:6-12) (emphasis added).

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Claim Terms

Integration Tier Including Web Services Communication Mechanisms

There is no basis in the claim or specification to construe this term to require the “web services communication mechanisms” to be “included in part of the integration tier.” POR 11; APPL-1021, ¶¶10-11. Claim 1 does not contain any explicit or implicit requirement that the claimed “web services communication mechanisms” **must** be “included in part of the integration tier.” APPL-1021, ¶12.

The specification also does not support Patent Owner’s interpretation. **Reply , 2**

The specification states that integration tier 101 “can also include a communication (e.g., Web services) API and/or other communication mechanisms to accept messages from channels 111.” APPL-1001, 9:65-10:1. The word “include” **does not require** the “web services communication mechanisms” to be “included in” or to be “part of” the integration tier. APPL-1021, ¶13. It only requires that the “web services communication mechanisms” **interface** with the integration tier. APPL-1021, ¶13. Indeed, the specification notes that there are “web services communication mechanisms” that are external to, *i.e.*, not part of, the integration tier

1. A computing system for facilitating management of a mobile wallet, comprising:
one or more processors;
system memory;
an integration tier configured to manage mobile wallet sessions with a mobile device and including web services communication mechanisms for interfacing with a mobile wallet application and a plurality of different device types over a plurality of different communication channels, the integration tier being configured to receive binary and text messages from a mobile device;

Claim Language	Patent Owner’s Proposed Construction	Petitioner’s Proposed Construction
an “integration tier ... <u>including</u> web services communication mechanisms for interfacing with ...”	an integration tier in which web services communication mechanisms <u>are included in part of the integration tier</u> (POR, at 11)	an integration tier where the “web services communication mechanisms” may be <u>external</u> to the integration tier (Reply, at 2-3).

Sur-Reply , 1

Integration Tier Including Web Services Communication Mechanisms

1021, ¶13. Indeed, the specification notes that there are “web services communication mechanisms” that are external to, *i.e.*, not part of, the integration tier entirely. APPL-1021, ¶¶13-14. For example, “[n]otification services 102 can be configured through a web services API.” APPL-1001, 10:12-13. As shown in Fig. 1, the notification services 102 is *outside* of the integration tier 101. APPL-1021, ¶14. As such, no specific construction is required. To the extent the Board construes

Reply , 2

“The mere fact that there is an alternative embodiment disclosed in the [asserted patent] that is not encompassed by [our] claim construction does not outweigh the language of the claim, especially when the court’s construction is supported by the intrinsic evidence.” *August Tech. Corp. v. Camtek, Ltd.*, 655 F.3d 1278, 1285

Moreover, to the extent Dr. Houh premised his construction on the notion that the Challenged Claims must be interpreted to cover every embodiment disclosed in the specification, his premise was faulty. As Dr. Houh acknowledged, the specification discloses multiple embodiments, not all of which are included within the scope of the Challenged Claims. (Ex. 2021 at 42:2-6). This is especially apparent in this case, because the Examiner issued a restriction requirement² in the ‘488 application (the parent to the ‘196 Patent), and when the Applicant narrowed the claims in the ‘488 application to recite, *inter alia*, an “integration tier including web services communication mechanisms,” the Applicant made clear in Remarks that *the claims were being limited to certain embodiments*. Ex. 2021 at 33:10-34:4, 35:3-5, 36:17-38:7; Ex. 1002 at 1761 in IPR2022-00399 (Response To Final Office Action in ‘488 Patent). Accordingly, it would be an error to interpret the claims of the ‘196

Sur-Reply , 5

...including web services communication mechanisms for interfacing with a mobile wallet application

Patent Owner states that “web services communication mechanisms” must “interface with the mobile wallet application...resid[ing] on the mobile device.”

POR 11. Patent Owner’s expert, on the other hand, is attempting to read in a number of additional, unrequired imitations into the term, such as claiming that the term

“involves a machine-to-machine interaction over the Internet using Web protocols”

and amounts to “a computer-to-computer function invoked automatically, and not at

the request of user (like clicking on a hyperlink).” EX2003, ¶¶ 29, 28; APPL-1021,

¶¶ 16-18.

Reply , 3-4

The only purported support for Patent Owner’s expert’s additional limitations

is his reliance on multiple extrinsic documents, none of which were considered

during prosecution. APPL-1022, 23:8-10; EX2003, ¶ 29 (citing EX2009 to 2015);

APPL-1021, ¶22. There is no indication that the patentee intended the claims to be

limited as Patent Owner’s expert suggests and it is improper to import these

additional limitations from extrinsic documents into the claims. *Seabed*

Reply , 4

. As explained in *Phillips*, 415 F.3d 1303, 1327:

... In many cases that give rise to litigation, however, determining the ordinary and customary meaning of the claim requires examination of terms that have a *particular meaning in a field of art*. Because the meaning of a claim term as understood by persons of skill in the art is often not immediately apparent, and because patentees frequently use terms idiosyncratically, *the court looks to “those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean.”* *Innova*, 381 F.3d at 1116. Those sources include “the words of the claims themselves, the remainder of *the specification*, *the prosecution history*, and *extrinsic evidence concerning* relevant scientific principles, *the meaning of technical terms*, and the state of the art.” (emphasis added).

Sur-reply , 21

...including web services communication mechanisms for interfacing with a mobile wallet application

Since it is not defined in the intrinsic record (Ex 1021 at 106:16-21), extrinsic evidence is necessary to determine the meaning of “web services.” Patent Owner produced such evidence in these proceedings (e.g., Ex. 2009-2015), and Patent Owner’s Expert supported his opinion about the meaning of “web services” in the art by citing that evidence. Despite acknowledging that it is a term of art that is not defined in the specification, **Petitioner produced no evidence of the meaning of “web services.”**

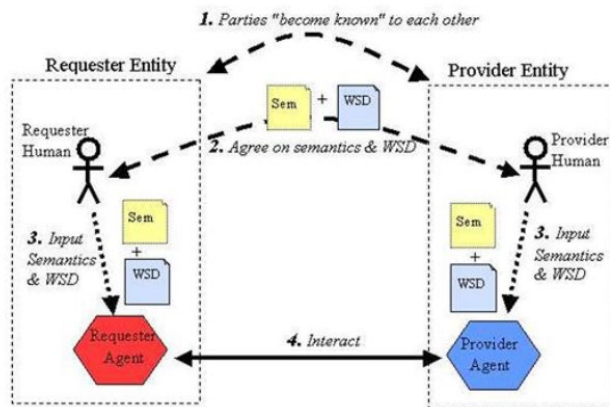


Figure 1-1. The General Process of Engaging a Web Service

Sur-Reply , 21

"DEMONSTRATIVE EXHIBIT - NOT EVIDENCE"

As Dr Shamos explained, webservices are different than webpages. Ex. 2003 at ¶¶28-31. A service³ is accessed by software agents through API calls (e.g., REST or SOAP). In contrast, webpages are accessed by users clicking on hyperlinks. This distinction is consistent with the definition of “web service” found in Ex. 2009: Ex 2009 explains that

A Web service is a software system designed to support interoperable machine-to-machine interaction over a network. It has an interface described in a machine-processable format (specifically WSDL). Other systems interact with the Web service in a manner prescribed by its description using SOAP messages, typically conveyed using HTTP with an XML serialization in conjunction with other Web-related standards.

* * *

Sur-Reply , 22

Web Services are different that Web Sites and Web Pages

“Hardware SIM Card”

C. “Hardware SIM Card”

Claim Term	Patent Owner’s Proposed Construction
“hardware SIM card” (Claims 1, 11 and 22)	“secure, tamper-resistant chip on a mobile device that is separate from the mobile device’s main memory that enables the mobile device to access the cellular network”

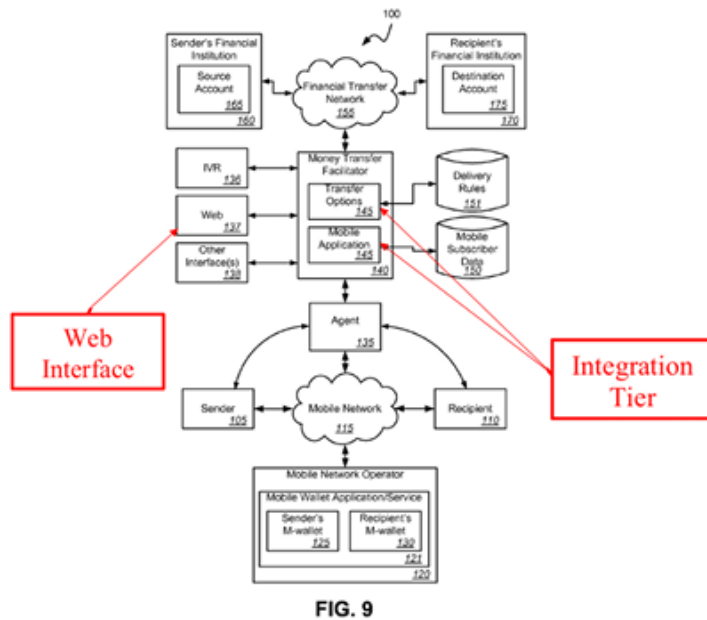
‘399 POR , 16

“SIM Card” is a term of art. As Dr. Houh recognized, “[t]he ’488 Patent does not define a ‘hardware SIM card.’” Ex. 1021 at ¶34. Therefore, extrinsic evidence is necessary to determine the meaning of the term. Patent Owner produced such evidence in these proceedings, and Patent Owner’s Expert supported his opinion about the meaning of “SIM Card” in the art by citing that evidence. Ex. 2003 at ¶30-33; Ex. 2021-2025. Despite acknowledging that it is a term of art that is not defined in the specification, Petitioner produced no evidence of the meaning of “SIM Card.” Petitioner’s expert provides a rebuttal that is merely conclusory (i.e., unsupported by evidence), and therefore entitled to no weight. Ex. 1021 at ¶¶32-36. For example, neither Dr. Houh nor the Petitioner have offered any explanation why the GSM technical standard “Digital cellular telecommunications system (Phase 2+); Specification of the Subscriber Identity Module Mobile Equipment (SIM - ME) interface; (GSM 11.11) “ (Ex. 2022 at Pg. 1) relied upon by Dr. Shamos is incorrect or not the type of a document that a POSITA would look to in order to ascertain the meaning of a term art. Similarly, Dr. Houh nor Petitioner offered an explanation as to why the description of a SIM card found in the textbook “Mobile Application Development with SMS and the SIM Toolkit” (Ex. 2021) is incorrect or why this is not the type of document a POSITA would look to in order to understand the term “SIM card.”

‘399 Sur-Reply , 22

THE PETITION FAILS TO DEMONSTRATE THE
UNPATENTABILITY OF CHALLENGED CLAIMS

Petitioner Has Failed To Show That Dill Teaches An Integration Tier, Including A Web Services Communication Mechanisms



It is undisputed that web interface 137 (mapped to the “web services communication mechanisms”) is external to the transfer options module 145 and mobile application 145 (both mapped to the integration tier). Ex. 2003 at ¶¶32-34. Petitioner’s sole response to this glaring deficiency is Dr. Houh’s groundless position that the claim language “including” covers “not including.” It does not. For this reason alone, Petitioner has failed to demonstrate the unpatentability of all Challenged Claims.

Sur-Reply , 14

Sur-Reply , 14

Dill Fails To Teach An Integration Tier That Includes A Web Services Mechanism For Interfacing With A Mobile Wallet Application

Dill discloses this limitation. APPL-1003, ¶87. As discussed in [1.3A],

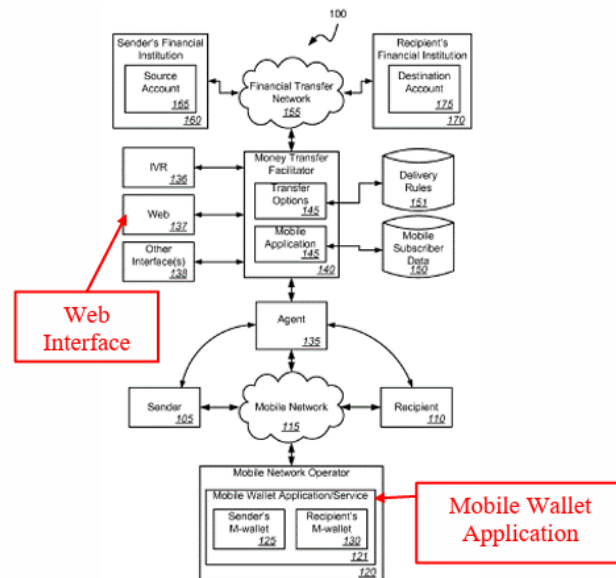
Dill's transfer options module 145, the "integration tier," facilitates

communications between mobile wallets 125, 130 within a mobile wallet

application 121. APPL-1005, [0101], Fig. 9; APPL-1003, ¶87. Communications

include a web interface 137 and money transfer transactions are initiated "from a web site of the money transfer facilitator" as well as other channels. APPL-1005,

[0015], [0033], [0047], [0051], [0054], [0101]; APPL-1003, ¶88.



APPL-1005, Fig. 9 (annotated).

Petition , 24

Such services can be provided to the recipient **110** in a variety of ways. For example, a notification can be provided to the recipient **110** via a mobile device and mobile network **115** as described above. Additionally or alternatively, a telephone call, telegram, email, SMS, U.S. postal letter, or other type of message can be sent to the recipient **110** providing the recipient **110** with notification of the transfer transaction and possibly instructions and/or options. Via one of the interfaces **136-138**, e.g., by logging onto a website, calling an IVR, visiting an agent location, etc. depending upon the notification and/or instructions provided, the recipient can select a delivery option and/or provide instructions for the delivery. Ex. 1005 at [0104] (emphasis added).

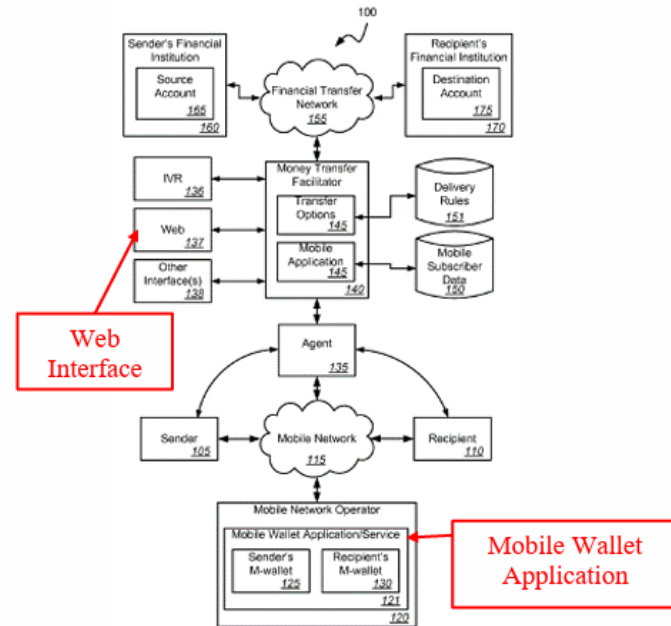
Again, to the extent Dill is teaching that a user "logs into a website" via interface 137, there is no basis for assuming that such a website log-in via "Web" 137 makes use of a mobile wallet application on a mobile phone. Ex. 2003 at ¶ 45.

POR , 42-43

Dill's Mobile Wallet Application (121) Doe **NOT** Communicate with the Web Interface (137)

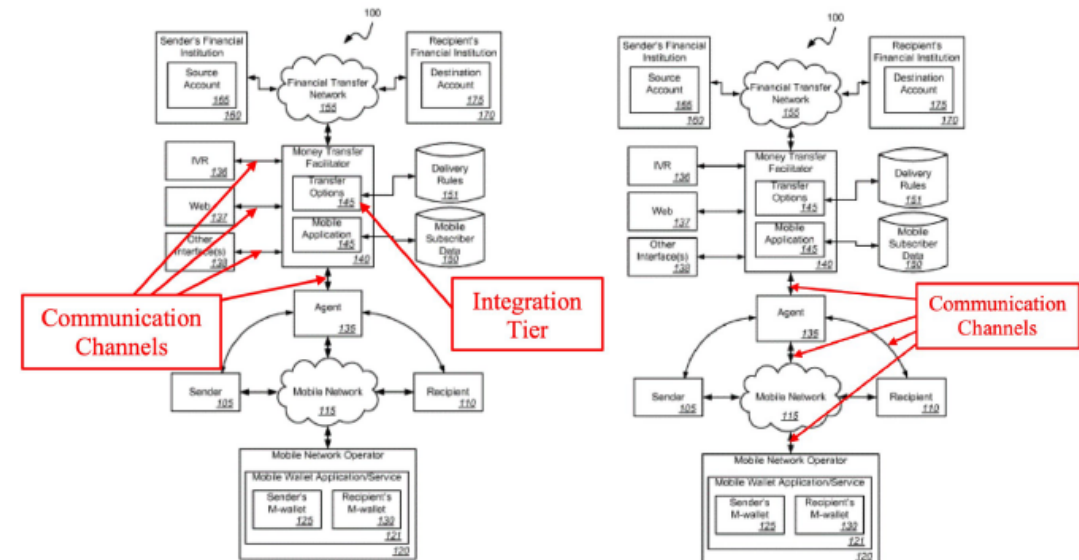
Dill Fails To Teach An Integration Tier That Includes Web Services Mechanisms For Interfacing With A Plurality Of Different Device Types *Over A Plurality Of Different Channels*

As shown in the Petition, Dill discloses many communication channels that interface with the money transfer facilitator 140, as shown in the following annotations of Dill's Fig. 9 below.



APPL-1005, Fig. 9 (annotated).

Petition , 24



APPL-1005, Fig. 9 (annotated).

Pet., 26

APPL-1005, Fig. 9 (annotated).

Pet., 52

The "Different Channels" identified by Petitioner do not interface with the web Interface

Reply , 15

Dill Fails To Teach A Notification Services Engine Configured To Interface With The Integration Tier

⁶ Nonetheless, for purposes of institution, we do question whether the Petition has shown Dill’s transfer options module 145 teaches the claimed “notification services engine” required by claim 1. *See* Pet. 28–30; Ex. 1003 ¶¶ 103–107. In particular, the Petition relies on transfer options module 145 as corresponding to the “integration tier” of claim 1. *See* Pet. 21–23. The claim requires “a notification services engine configured to interface with the integration tier” (Ex. 1001, 24:4–5), and **Petitioner does not appear to substantiate a contention that Dill’s transfer options module 145 interfaces with itself.** *See* Pet. 28–30.

Institution, 26

Houh Supplemental Declaration *Inter Partes* Review of U.S. 10,438,196

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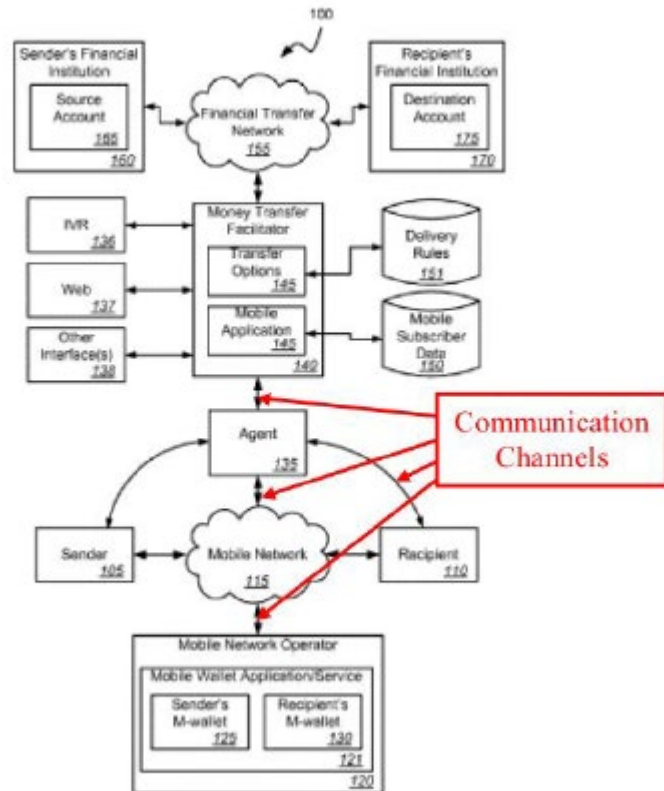
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The Petition maps Dill’s transfer options module 145 to the claimed “integration tier” and consistently maintains that mapping. Pet., 23; *see also, e.g.*, Pet., 24 (“As discussed in [1.3A], Dill’s transfer options module 145, the “integration tier,...”), 25 (same), 27 (same). The transfer options module 145 and/or mobile application 145 may be used to send notifications of a transaction to parties of the transaction. Pet., 28; APPL-1005, [0069], [0101]; APPL-1003, ¶104. As such, a POSITA would have understood “transfer options module 145 and/or mobile application 145” to be the claimed “notification services engine.” Pet., 29. This mapping is appropriate despite Patent Owner’s criticism because the transfer options module 145 and mobile application 145 are part of the money transfer facilitator 140. APPL-1005, Fig. 9. **And, as explained in the Petition and by Dr. Houh, a POSITA would have understood that “components of the money transfer facilitator 140”—transfer options module 145 and mobile application 145—“interface with each other to send the notification[s].”** Pet., 29-30; APPL-1005, [0090], [0101]; APPL-1003, ¶106. Patent Owner’s challenge is without merit.

Reply, 12

Petitioner educed no additional evidence of how the Dill’s Transfer Module Interfaces with itself

Dill Fails To Teach Receipt Of A Communication From The Agent Terminal Over At Least One Of The Plurality Of Channels



APPL-1005, Fig. 9 (annotated).

an integration tier configured to manage mobile wallet sessions with a mobile device and including web services communication mechanisms for interfacing with a mobile wallet application and a plurality of different device types over a plurality of different communication channels, ...

one or more computer-readable storage media ... causing the computing system to perform at least the following: ...

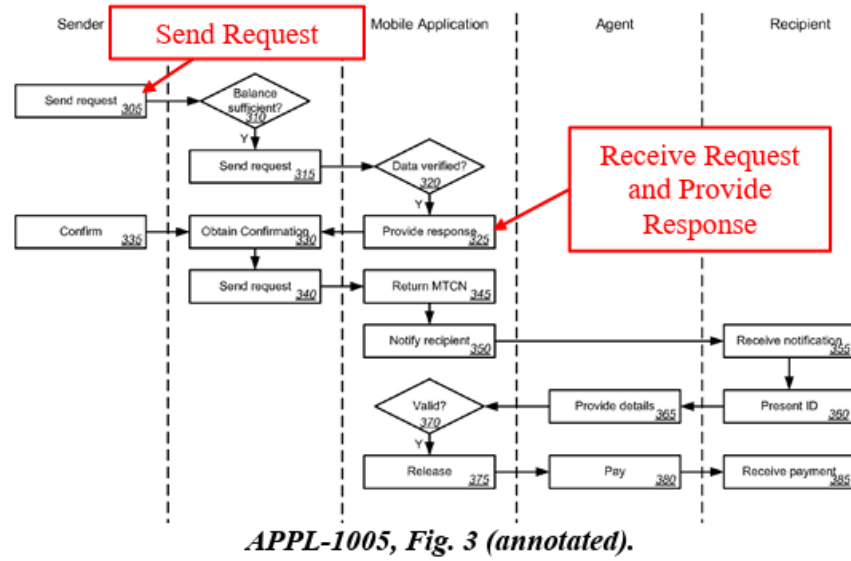
receive communication from the agent terminal over at least one of the plurality of channels connected to the computing system, the agent terminal communication indicating that the purchase code has been presented to an agent...

after selecting a particular channel included in the plurality of channels, send a notification communication from the computing system to the agent terminal using the particular channel ...

Dill is wholly silent with regard to any communication that is received from the agent (135) via the web interface (137)

POR , 37-38

Dill Fails To Teach Receipt Of A Communication From The Agent Terminal Over At Least One Of The Plurality Of Channels



As discussed in [1.3A], Dill teaches that transactions are conducted over interfaces 136-138 (which include all communications required for the transactions, such as those shown in Fig. 3). APPL-1005, [0101]; APPL-1003, ¶157. Thus, Dill teaches this limitation. APPL-1003, ¶158.

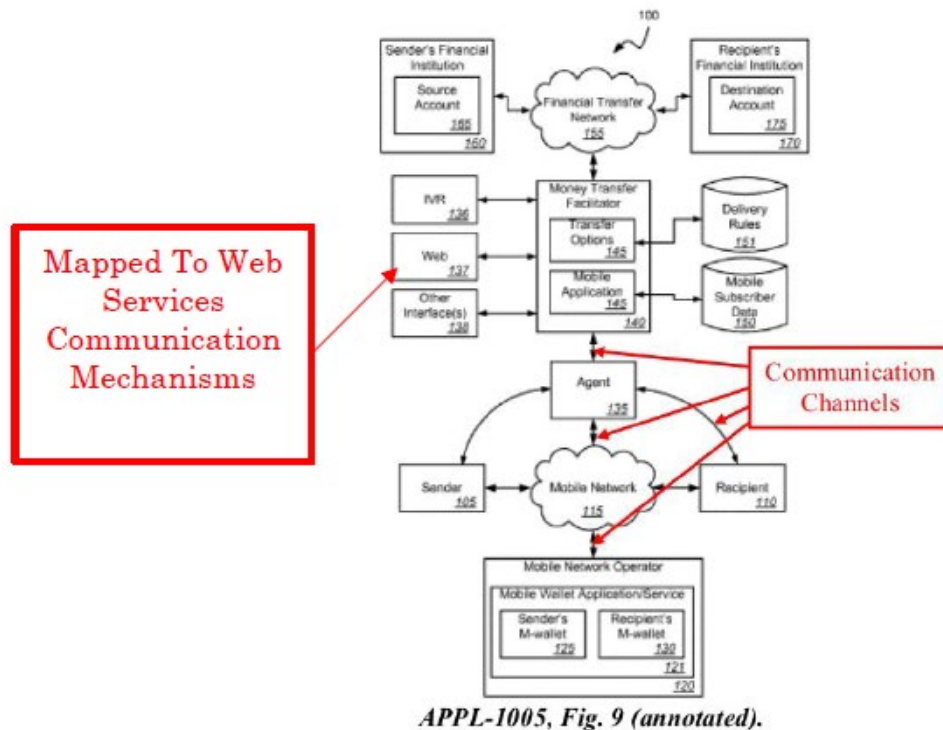
Petition , 45

The Petition showed that Dill's transfer options module 154 ("integration tier") of the money transfer facilitator 140 receives communications from the agent 135 ("agent terminal") through at least one of a plurality of communication channels, as shown in Fig. 9 below. Pet., 45-46 (Dill's agent 135 teaches the claimed *agent terminal*) (citing APPL-1005, [0051]; APPL-1003, ¶¶160-161), 51-52 (citing APPL-1005, [0051], [0070], [0090], [0100], [0032], [0052]; APPL-1003, ¶¶178-183). For example, Dill discloses that the agent 135 may communicate with the money transfer facilitator 140 through "wired or wireless" communication channels to "direct funds in the transfer." Pet., 51 (citing APPL-1005, [0090]; APPL-1003, ¶181).

Petitioner Changed their Mapping of "channels" from the Petition (left) to the reply (right)

Reply , 13

Petitioner Has Failed To Establish That Dill Teaches *Web Services* For *Interfacing With A Mobile Wallet Application*



Sur-Reply , 19

The Petition maps the claimed “web services communication mechanisms” to Dill’s web interface 137, which Dill simply describes as a *web site*. See Ex. 1005 at ¶ 33 (referring to “a *web site* of the money transfer facilitator” and disclosing that the sender may provide the money transfer facilitator with transaction information via a “*web page*”); ¶ 34 (“*web page* notification”); ¶¶ 35, 51, 54 (“a *web site*”); ¶¶ 71, 72, 104 (“a *website*”). The Petition fails to explain how simply serving web pages to a user from a web site (as disclosed in Dill) constitutes a “web service,” as claimed. Ex. 2003 at ¶¶ 30-31. In its analysis, the Petition reads the word “*services*” out of the claim, by erroneously equating “*web services* communications mechanism” with “*web* communication mechanisms.” However, a POSITA would have understood that a “web service” requires, *inter alia*, *machine-to-machine* interaction over a network, rather than simply serving web pages to a user from a web site. Ex. 2003 at ¶¶ 30-31. For this further reason, the Petition has failed to carry its burden of demonstrating that the relied on references meet all of the limitations of the Challenged Claims.

POR , 45-46

Petitioner has offered no evidence that Dill’s webpage is accessed with the mobile wallet application (120)

Petitioner Has Failed To Establish That Dill Teaches *Web Services For Interfacing With A Mobile Wallet Application*

Such services can be provided to the recipient **110** in a variety of ways. For example, a notification can be provided to the recipient **110** via a mobile device and mobile network **115** as described above. Additionally or alternatively, a telephone call, telegram, email, SMS, U.S. postal letter, or other type of message can be sent to the recipient **110** providing the recipient **110** with notification of the transfer transaction and possibly instructions and/or options. Via one of the interfaces **136-138**, e.g., by logging onto a website, calling an IVR, visiting an agent location, etc. depending upon the notification and/or instructions provided, the recipient can select a delivery option and/or provide instructions for the delivery. Ex. 1005 at [0104] (emphasis added).

Again, to the extent Dill is teaching that a user “logs into a website” via interface 137, there is no basis for assuming that such a website log-in via “Web” 137 makes use of a mobile wallet application on a mobile phone. Ex. 2003 at ¶ 45.

POR , 42

As explained in the Patent Owner Response, to the extent Dill is teaching that a user “logs into a website” via “Web 137,” there is no basis for assuming that such a website log-in via “Web” 137 makes use of a mobile wallet application on a mobile phone. POR, at 42-43; Ex. 2003 at ¶ 45. The Petition did not show or even allege that it is inherent in Dill that Dill’s “Web” 137 connects with a mobile wallet application on a mobile phone, as claimed. For example, to the extent sender 105 used a browser on her mobile phone to log-in via Web 137, that would fail to meet the claim language because a browser is not a mobile wallet application on a mobile phone. Ex. 2003 at ¶ 45. Significantly, the Reply does not dispute that (i) a browser is not a mobile wallet application, or (ii) Patent Owner’s position that it is not inherent in Dill that Dill’s “Web” 137 connects with a mobile wallet application on a mobile phone, as claimed. Petitioner’s failure to rebut these issues provides a still further reason that Petitioner has failed to carry its burden.

Sur-Reply , 20

An internet browser is not a “Mobile Wallet Application”

The Petition Erroneously Maps Dill's Mobile Wallet Application (121) In Mobile Network Operator (120) To The Claimed "Mobile WalletApplication" Installed On A Mobile Device

Patent Owner's argument is unavailing at this stage. Dill states: "The mobile device *can execute* a mobile wallet application." Ex. 1005 ¶ 10 (*cited at* Pet. 7, 22–23); *see also id.* ¶ 94 (describing "a cell phone or other mobile device executing the mobile wallet application 121") (*cited at* Pet. 33); *id.* at claim 13 (reciting "a mobile device communicatively coupled with the mobile communications network and executing a mobile wallet application"). Neither Patent Owner nor Dr. Shamos addresses these disclosures in Dill that its mobile device *executes* a mobile wallet application. They also do not explain how these disclosures are different from the '196 patent's express definition of "mobile wallet application" as being *installed on* the mobile device. *See* Prelim. Resp. 18–19; Ex. 2001 ¶¶ 51–52. Thus, we disagree with the premise of Patent Owner's argument, for purposes of institution. We conclude that resolution of this issue would benefit from further briefing during trial.

Institution , 29

Dill's Mobile Wallet Application runs is run by the MNO and/or the transfer facilitator

[0094] The recipient 110 can then enter 812 the received transaction identifier and perhaps a Personal Identification Number (PIN) for the recipients mobile wallet 130 into a mobile wallet application 121. For example, the recipient can enter 812 the PIN and transaction identifier via a keypad or other input device of a cell phone or other mobile device executing the mobile wallet application 121. The PIN and the transaction identifier for a previously initiated money transfer transaction can be received 814 by the mobile wallet application 121. The PIN can be verified 816 with the mobile wallet application 121 and, in response to verifying 816 the PIN, the transaction identifier can be sent 818 to an application 145 of a money transfer facilitator supporting the money transfer transaction.

Dill , [0094]

a mobile device communicatively coupled with the mobile communications network and *executing a mobile wallet application, the mobile wallet application adapted to receive a Personal Identification Number (PIN) and a transaction identifier for a previously initiated money transfer transaction, verify the PIN, and in response to verifying the PIN, send the transaction identifier via the mobile communications network ...* (emphasis added).

There is no disclosure in Dill of the mobile wallet application running on the mobile device to perform anything other than the pull transaction described in [0094] and claimed in claim 13. Ex. 2003 at ¶ 51. For example, Dill explains that "the mobile wallet application 121 maintains mobile wallets 125 and 130 for one or more subscribers, such as the sender 105 and/or recipient 110 to the mobile wallet service 121." Ex. 1005 at [0053].

POR , 49

Dill And Bykov Fail To Teach A Mobile Wallet Installed On A Hardware SIM Card

Dill's mobile wallet application is installed on a hardware SIM card. APPL-1003, ¶95. Dill teaches "a mobile device communicatively coupled with the mobile communications network and executing a mobile wallet application." APPL-1005, claim 1. Dill's software instructions (including mobile wallet application) may be implemented on any type of "machine-readable mediums suitable for storing electronic instructions" which a POSITA would have understood to include a hardware SIM card. APPL-1005, [0106]; APPL-1003, ¶95. As evidenced by Bykov, SIM cards are commonly used to execute code for mobile transactions in mobile devices. APPL-1013, [0027]-[0028]; APPL-1003, ¶¶96-97. Thus, Dill teaches [1.3B]. APPL-1003, ¶¶97-98.

'399 Petition , 23-24

Bykov's personal exchange module is not a "SIM Card" instead, it is a card used for NFC transactions

[0027] A personal information exchange module according to embodiments may be implemented as a standardized module that can be easily plugged into any personal handheld device. For example, the personal information exchange module may be in SIM form, which is accepted by a majority of cellular phones today. Many personal handheld devices, such as PDAs, also include memory module slots where memory or similar modules may be plugged in.

"DEMONSTRATIVE EXHIBIT - NOT EVIDENCE"

[0106] In the foregoing description, for the purposes of illustration, methods were described in a particular order. It should be appreciated that in alternate embodiments, the methods may be performed in a different order than that described. It should also be appreciated that the methods described above may be performed by hardware components or may be embodied in sequences of machine-executable instructions, which may be used to cause a machine, such as a general-purpose or special-purpose processor or logic circuits programmed with the instructions to perform the methods. These machine-executable instructions may be stored on one or more machine readable mediums, such as CD-ROMs or other type of optical disks, floppy diskettes, ROMs, RAMs, EPROMs, EEPROMs, magnetic or optical cards, flash memory, or other types of machine-readable mediums suitable for storing electronic instructions. Alternatively, the methods may be performed by a combination of hardware and software.

[0028] In the example of a payment module, a module provided by a financial institution may execute sensitive code and store sensitive financial data with its appropriate security measures. A user may obtain this module from their financial institution and plug into a SIM card slot (if the module is in SIM form) of their cellular phone and use the phone for financial transactions transparent to the main functionality of the phone. Since the sensitive code and data is not transferred to the control of the phone's operating system, the module's integrity is protected and compatibility issues may be minimized by using standard APIs.

Independent claims

US 9,208,488

- [1.0] A computing system for facilitating management of a mobile wallet, including:
- [1.1] one or more processors;.....
- [1.2] system memory;.....
- [1.3A] an integration tier configured to manage mobile wallet sessions with a mobile device and
- [1.3B] [an integration tier configured to manage mobile wallet sessions with a mobile device and] including web services communication mechanisms for interfacing with a mobile wallet application installed on a hardware SIM card.....
- [1.3C] [an integration tier configured to manage mobile wallet sessions and] ... as well as with a plurality of different device types over a plurality of different communication channels,.....
- [1.3D] [an integration tier configured to manage mobile wallet sessions with a mobile device]... the integration tier being configured to receive binary and text messages from the mobile device;.....
- [1.4A] a notification services engine configured to interface with the integration tier and
- [1.4B] [a notification services engine configured to interface with the integration tier and] to send Short Message Peer-to-Peer (SSMP) messages, Short Messaging Service (SMS) messages and Simple Mail Transfer Protocol (SMTP) messages over the different communication channels to different devices,.....

- [1.4C] [a notification services engine configured to interface with the integration tier and to send Short Message Peer-to-Peer (SSMP) messages, Short Messaging Service (SMS) messages and Simple Mail Transfer Protocol (SMTP) messages over the different communication channels to different devices] including the mobile device, to interface with the mobile wallet application installed on the hardware SIM card;.....
- [1.5A] service connectors that are each configured to connect the computing system to a different third party system;
- [1.5B] each of the service connectors being configured as a separate module for integrating a corresponding external service to the computing system;.....
- [1.6] a payment handler that exposes a common API for interacting with different payment processors;.....
- [1.7] a security services engine that performs subscriber authentication utilizing a database-based Access Control List (ACL);.....
- [1.8] a rules engine configured to enforce constraints on financial transactions performed with the mobile wallet application, the mobile wallet application being associated with a mobile wallet account; and
- [1.9] one or more computer-readable storage media having stored thereon computer-executable instructions that are executable by the one or more processors to cause the computing system to perform a transaction for a customer using the mobile wallet which is owned by another entity than the customer, comprising the following:

- [1.10A] the computing system receiving communication from an agent terminal over one of a plurality of communication channels connected to the cloud-based transaction platform,.....
- [1.10B]...the agent communication indicating that a customer desires to perform a transaction comprising a mobile wallet transaction using a third party mobile wallet;.....
- [1.10C]...the mobile wallet transaction comprising at least one of a mobile wallet transfer in which funds are transferred from the mobile wallet of the customer to a third party mobile wallet, a mobile wallet withdrawal in which funds are withdrawn from the third party mobile wallet and provided to the customer, or a mobile wallet deposit in which funds are deposited into the third party mobile wallet;.....
- [1.11] the computing system sending the agent communication to the third party mobile wallet platform;.....
- [1.12A] the computing system determining whether the mobile wallet transaction comprises the mobile wallet withdrawal and
- [1.12B] ... when the mobile wallet transaction is determined to comprise the mobile wallet withdrawal, generating and providing a perishable withdrawal code to the consumer, which is presented to the agent terminal to facilitate processing of the mobile wallet withdrawal;
- [1.13] the computing system receiving communication from the third party mobile wallet platform confirming processing of the transaction, the transaction comprising at least one of the mobile wallet transfer, the mobile wallet withdrawal or the mobile wallet deposit; and
- [1.14] the computing system sending communication to the agent terminal over one of a plurality of communication channels connected to the cloud-based transaction platform, the communication indicating confirmation of the processing of the transaction.....

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[1.0] A computing system for facilitating management of a mobile wallet, comprising:	[1.4C] [a notification services engine configured to interface with the integration tier and to send a plurality of corresponding different types of messages...to different devices] including a customer's mobile device, to interface with a mobile wallet application installed on the customer's mobile device;	[1.10B]...the customer communication indicating that the customer desires to purchase an item at an agent terminal for a specified amount of funds using a specified payment method from a mobile wallet;
[1.1] one or more processors;		
[1.2] system memory;		
[1.3A] an integration tier configured to manage mobile wallet sessions with a mobile device and	[1.5] service connectors that are each configured to connect the computing system to a different third party system;	[1.11] return a secure, perishable purchase code to the customer over at least one of the plurality of channels connected to the computing system;
[1.3B] [an integration tier configured to manage mobile wallet sessions with a mobile device and] including web services communication mechanisms for interfacing with a mobile wallet application and	[1.6] a payment handler that exposes a common API for interacting with different payment processors;	[1.12A] receive communication from the agent terminal over at least one of the plurality of channels connected to the computing system, ...
[1.3C] [an integration tier configured to manage mobile wallet sessions and] ... a plurality of different device types over a plurality of different communication channels, ...	[1.7] a security services engine that performs subscriber authentication utilizing a database-based Access Control List (ACL);	[1.12B]...the agent terminal communication indicating that the purchase code has been presented to an agent;
[1.3D] [an integration tier configured to manage mobile wallet sessions with a mobile device]...the integration tier being configured to receive binary and text messages from a mobile device;	[1.8] a rules engine configured to enforce constraints on financial transactions performed with the mobile wallet application, the mobile wallet application being associated with a mobile wallet account; and	[1.13] debit the mobile wallet by the specified amount of funds; ..
[1.4A] a notification services engine configured to interface with the integration tier and	[1.9] one or more computer-readable storage media having stored thereon computer-executable instructions which are executable by the one or more processors, to facilitate a transaction for a customer using the mobile wallet by causing the computing system to perform at least the following:	[1.14] credit an agent account by the specified amount of funds; and
	[1.10A] receive communication from the customer over one of the plurality of channels connected to the computing system, ...	[1.15] after selecting a particular channel included in the plurality of channels, send a notification communication from the computing system to the agent terminal using the particular channel, which is connected to the computing system, the notification communication providing a notification indicating confirmation of the processing of the transaction.