

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Askeladden L.L.C.,
Petitioner

v.

Calabrese Stemer LLC,
Patent Owner

Case: IPR2024-00368
U.S. Patent No. 8,783,564

PETITION FOR *INTER PARTES* REVIEW

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LIST OF EXHIBITS

PETITIONER EXHIBIT	DESCRIPTION
1001	U.S. Patent No. 8,783,564 (“the ’564 patent”)
1002	Prosecution History of the ’540 patent
1003	Declaration and <i>curriculum vitae</i> of Dr. Robert Akl, D. Sc.
1004	Declaration of Glenn J. Perry
1005	Supporting Exhibit to Declaration of Glenn J. Perry
1006	Certified English Translation of Japanese Patent Application No. 2002-133100 (“Horie”) and Certification
1007	Certified English Translation of Japanese Patent Application No. 2001-306806 (“Kobayashi”) and Certification
1008	U.S. Patent No. 5,915,222 (“the ’222 patent”)
1009	Japanese Patent Application No. 2002-133100 (“Horie”)
1010	Japanese Patent Application No. 2001-306806 (“Kobayashi”)

CLAIM LISTING

Claim 1
[1pre] 1. A method for processing a transaction, comprising the steps of:
[1a] receiving a request for authorizing a transaction for an account, said request received via a first transmission channel, said request including at least an identification of the customer's account;
[1b] determining whether or not the account includes a request for notification to the customer of any transactions;
[1c] notifying the customer via a second transmission channel only if the account includes a request for notification of any transactions;
[1d] the second transmission channel being distinct from the first transmission channel; and
[1e] authorizing the transaction without requiring a response from the customer.
Claim 2
2. The method according to claim 1, wherein the notifying step comprises sending an SMS message to the customer.
Claim 3
3. The method according to claim 1, wherein the request is from the group consisting of a customer, an account holder, an authorized person, and an unauthorized person.
Claim 4
4. The method according to claim 1, wherein the request is provided from the group consisting of an ATM, a POS terminal, a telephone and a device for virtual communication.
Claim 5
5. The method according to claim 1, wherein the request is a virtual request provided via the Internet.

Claim 6
6. The method according to claim 1, wherein the transaction is selected from the group consisting of credit card, debit card, charge card, and ATM.
Claim 7
7. The method according to claim 1, wherein the first transmission channel is selected from the group consisting of wireless and landline channels.
Claim 8
8. The method according to claim 1, which comprises receiving the request at a remote processing facility.
Claim 9
9. The method according to claim 1, wherein said steps of notifying and authorizing are performed substantially concurrently.
Claim 10
[10pre] 1. A method for processing a transaction, comprising the steps of:
[10a] receiving a request for authorizing a transaction for an account, said request received via a first transmission channel, said request including at least an identification of the customer's account;
[10b] determining if the account includes a request for notification to the customer of any transactions;
[10c] sending a notification to the customer via second transmission channel only if the account includes a request for notification of at least one form of transaction;
[10d] the second transmission channel being distinct from the first transmission channel;
[10e] receiving a response to the notification; and
[10f] authorizing the transaction only if the response is proper.

Claim 11
11. The method according to claim 10, wherein the request is from the group consisting of a customer and an authorized person.
Claim 12
12. The method according to claim 10, wherein the request is provided from the group consisting of an ATM, a POS terminal, a telephone and virtual.
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18. The method according to claim 10, wherein the request for authorizing a transaction is received from a group consisting of a merchant and a customer.
Claim 19
19. The method according to claim 10, wherein the response is selected from the

group consisting of a reply to an SMS message, a key depressed during a telephone call, a PIN, a password, and a voice reply.

I. Mandatory Notices.

A. Real Party-in-Interest.

Pursuant to 37 C.F.R. § 42.8(b)(1), Petitioner Askeladden L.L.C. certifies that it is the real party-in-interest in this proceeding. In this regard, Petitioner submits the Declaration of Glenn J. Perry (Ex. 1004) and supporting exhibit (Ex. 1005). As demonstrated in the Perry Declaration and supporting exhibit, no other party is in privity with or exercised control or could exercise control over Petitioner's participation in this proceeding, the filing of this Petition, or the conduct of any ensuing trial. Ex. 1004 ¶¶22-28; Ex. 1005.

B. Related Matters.

U.S. Patent No. 8,783,564 ("the '564 patent") was asserted against:

- Wise US Inc. in *Calabrese Stemer LLC v. Wise US Inc.*, No. 1:23-cv-00231-DII (W.D. Tex.) (filed: March 1, 2023) (terminated: June 13, 2023); and
- Comerica Bank in *Calabrese Stemer LLC v. Comerica Bank*, No. 2:22-cv-00386 (E.D. Tex.) (filed: October 4, 2022) (terminated: December 23, 2022).

There are no other lawsuits or PTAB proceedings Petitioner is aware of involving the '564 patent. To the best of Petitioner's knowledge, none of the grounds set forth in this Petition have been previously considered by the USPTO or

any court. Concurrently with the filing of this Petition, Petitioner is submitting Petitions for *inter partes* review of two related patents, U.S. Patent Nos. 7,357,310 and 7,954,706.

C. Fee.

This Petition requests review of nineteen (19) claims of the '564 patent and is accompanied by a payment of \$41,500, which includes the \$19,000 *inter partes* review request fee, and the \$22,500 post-institution fee. *See* 37 C.F.R. § 42.15. Thus, this Petition meets the fee requirements under 35 U.S.C. § 312(a)(1). The Board is hereby authorized to charge any additional fees required by this action to Deposit Account No. 20-1430.

D. Designation of Lead and Backup Counsel.

Lead counsel for Petitioner is Alton L. Absher III, Registration No. 60,687 of Kilpatrick Townsend & Stockton LLP. Back-up counsel for Petitioner is Andrew W. Rinehart, Registration No. 75,537, and Philip E. Hawkyard, Registration No. 81,629, also of Kilpatrick Townsend & Stockton LLP.

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E. Service Information.

Petitioner may be served via email to its counsel and to

Askeladden_IPR@ktslaw.com.

II. Introduction.

The '564 patent is invalid. The only alleged point of novelty in the '564 patent—simultaneously authorizing a card transaction and notifying a card holder of the transaction via text if the customer account included a request for notification thereof—was already known in the art. The dependent claims of the '564 patent recite nothing more than the use of hardware and transmission channels that are typical of every card transaction, and thus were well within the knowledge of a POSITA at the time of invention. All claims of the '564 patent should be cancelled as anticipated or obvious.

III. The '564 Patent.

The '564 patent was filed on August 23, 2013, as U.S. Serial No. 13/974,462 (“the ‘462 Application”) and issued on July 22, 2014. The ‘462 Application is a continuation of U.S. Serial No. 13/088,514, filed April 18, 2011; which was a continuation of U.S. Serial No. 12/043,235, filed March 6, 2008, now U.S. Patent No. 7,954,706 B2; which was a divisional of patent application U.S. Serial No. 11/077,783, filed March 11, 2005, now U.S. Pat. No. 7,357,310 B2. For the purposes of this Petition, Askeladden assumes that the earliest potential effective filing date is March 11, 2005. Because its earliest effective filing date is before March 16, 2013, the '564 patent is subject to the pre-AIA provisions of 35 U.S.C. *See* AIA § 3(n)(1).

According to the '564 patent, “[c]redit cards and charge cards have become the primary vehicle by which payments . . . are transacted” but “charge errors and charge fraud causes millions of dollars in losses in the United States.” Ex. 1001, at 1:23-25, 41-43. These errors occur, according to the patent, when the consumer is “charged too much” or “authorize[s] the incorrect amount,” but more often errors occur when there are “incorrect or non-authorized charges” related to “fraudulent or even innocent mistakes.” *Id.* at 1:31-32, 38-40. The patent proposes that these errors “could have been avoided, had better authorization security been assured” during the time of purchase. *Id.* at 1:40-41.

The '564 patent, titled “Transaction Notification and Authorization Method,” generally describes “an improved charge payment authorization method.” *Id.* at Title, 1:57-58. The method begins when a **customer** “**swipes**” or “**manually enter[s]**” a “**charge card**” at a “**merchant terminal**.” *Id.* at 3:40-43. According to the patent, the **merchant terminal** can be either “**a store, . . . a teller or an automated teller machine (ATM), or . . . a virtual terminal in an internet-type transaction.**” *Id.* at 3:43-45. The “**charge card**” refers to “**credit cards**” as well as “**debit and ATM card processing**” and any “**equivalent or similar payment mechanisms.**” *Id.* at 5:4-8.

Before the customer signs for the purchase, the “**merchant terminal 3 connects, through a modem 5, to an acquirer 6**” and the acquirer “checks against its

data sources whether or not the transaction should be authorized.” *Id.* at 3:51-55.

At the same time, the acquirer also checks “the customer’s set preferences concerning the notification/authorization options.” *Id.* at 3:55-58. The customer’s profile can be “set to simple ‘notification,’ which means the system only notifies the cardholder by sending a message” to the customer. *Id.* at 3:59-61.

Alternatively, the profile may require a “prompt [to the customer] to confirm the purchase.” *Id.* at 4:1 (marked up to show “user” in red, “merchant” in green, “card” in blue, “authorization” in orange, “notification” in purple, “request” in light blue, “first transmission channel” in tan, and “second transmission channel” in teal.).

The patent asserts that this notification/authorization method “does not add any time to the transaction” but that any “delay” may be justified by “[t]he added security.” *Id.* at 4:10-14. However, any delay can be avoided if the customer “provide[s] preauthorization when a charge request is imminent” by “call[ing] ‘ahead’ and provid[ing] preauthorization for the impending purchase.” *Id.* at 4:16-20.

Finally, the invention contemplates that the notification/authorization can go to “a third party” which would “be beneficial in a parent/child relationship, or in an employer/employee relationship.” *Id.* 5:20-22.

Figures 1 and 2 of the ’564 patent are reproduced below.

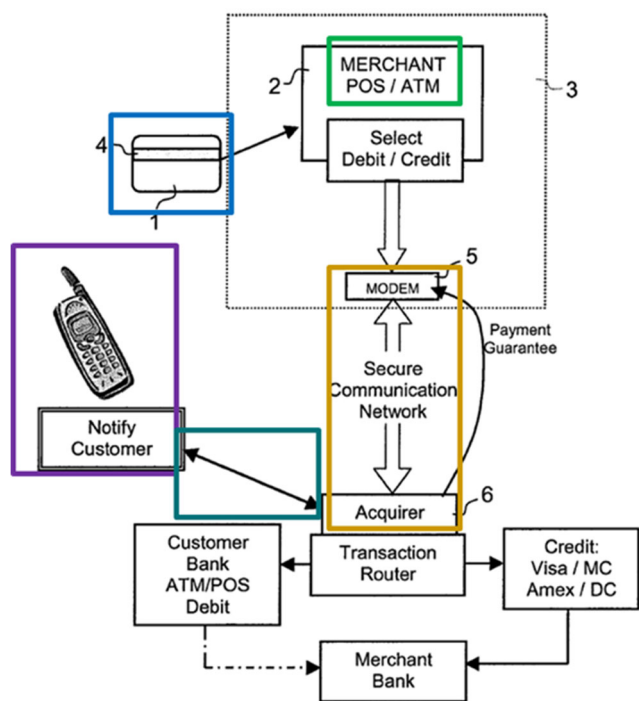


FIG. 1

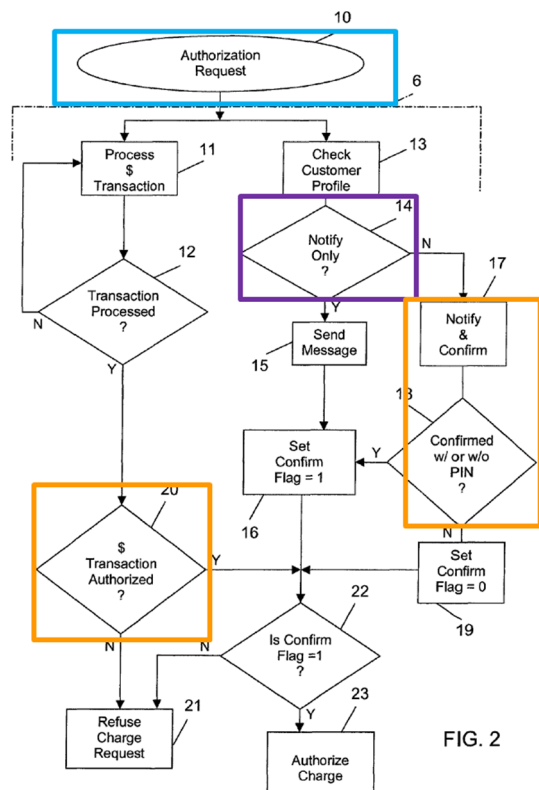


FIG. 2

Ex. 1001, Figs. 1 and 2 (annotated).

A. Prosecution of the '564 patent.

The allowed claims of the '564 patent were never rejected during prosecution by the Examiner. In a non-final rejection dated December 4, 2013, the Examiner allowed original claims 1-9 and 14-23, and rejected claims 10-13. Ex. 1002, at 114. In a response submitted on January 14, 2014, the applicant cancelled claims 10-13. *Id.* at 139. A Notice of Allowance for the allowed claims issued on March 28, 2014. *Id.* at 310.

B. Level of Ordinary Skill in the Art.

A POSITA of the '564 patent ("POSITA") would generally have experience

in the hardware and software used in the field of securely transmitting and processing authorization requests over wired and wireless networks, such as requests for the processing of financial transactions. Ex. 1003 ¶ 22. A POSITA in this context would have a bachelor's degree in computer science, computer engineering, electrical engineering, or a related study, and would have at least one or two years of experience with wired and wireless networks used to securely process requests for authorization of activity such as financial transactions. Ex. 1003 ¶ 22. Less experience is necessary with additional education (e.g., a Master's degree), and likewise, less education is necessary with additional work experience (e.g., 5-6 years). Ex. 1003 ¶ 22.

IV. Claim Construction.

At this stage of the proceedings, Petitioner respectfully submits that no claim terms require an express construction. Ex. 1003 ¶ 62.

V. Relief Requested

A. Grounds for Standing

Pursuant to 37 C.F.R. § 42.104(a), Petitioner certifies that the '564 patent is available for *inter partes* review and that Petitioner is not barred or estopped from requesting an *inter partes* review challenging the patent claims on the grounds identified.

B. Identification of Challenge

Pursuant to 37 C.F.R. § 42.104(b) and 35 U.S.C. § 311, this Petition requests

cancellation of claims 1-19 (“the challenged claims”) of the ’564 patent based on the following prior art references:

- Japanese Patent Application 2002-133100 (“the ’100 application” or “Horie”) [Ex. 1006];
- Japanese Patent Application 2001-306806 (“the ’806 application” or “Kobayashi”) [Ex. 1007].

Ground	35 U.S.C.	Claims	References
1	§ 102	1-9	Horie
2	§ 103	1-9	Horie in view of the knowledge of a POSITA
3	§ 103	10-19	Horie in view of Kobayashi and the knowledge of a POSITA

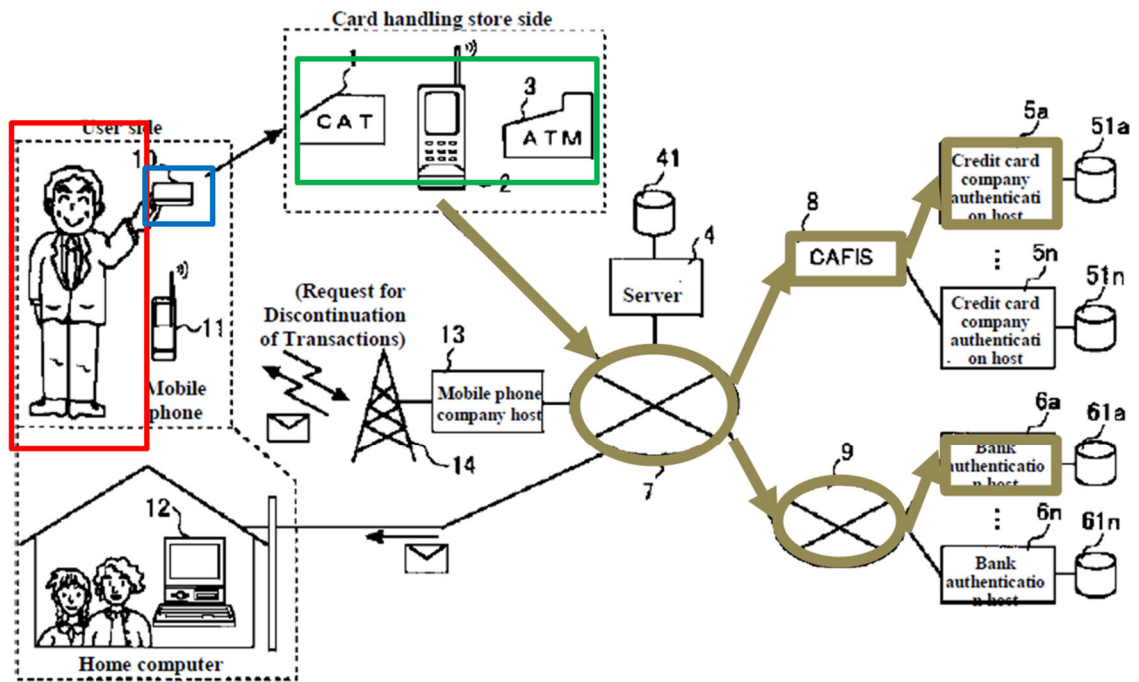
VI. Prior Art

A. Horie (Ex. 1006)

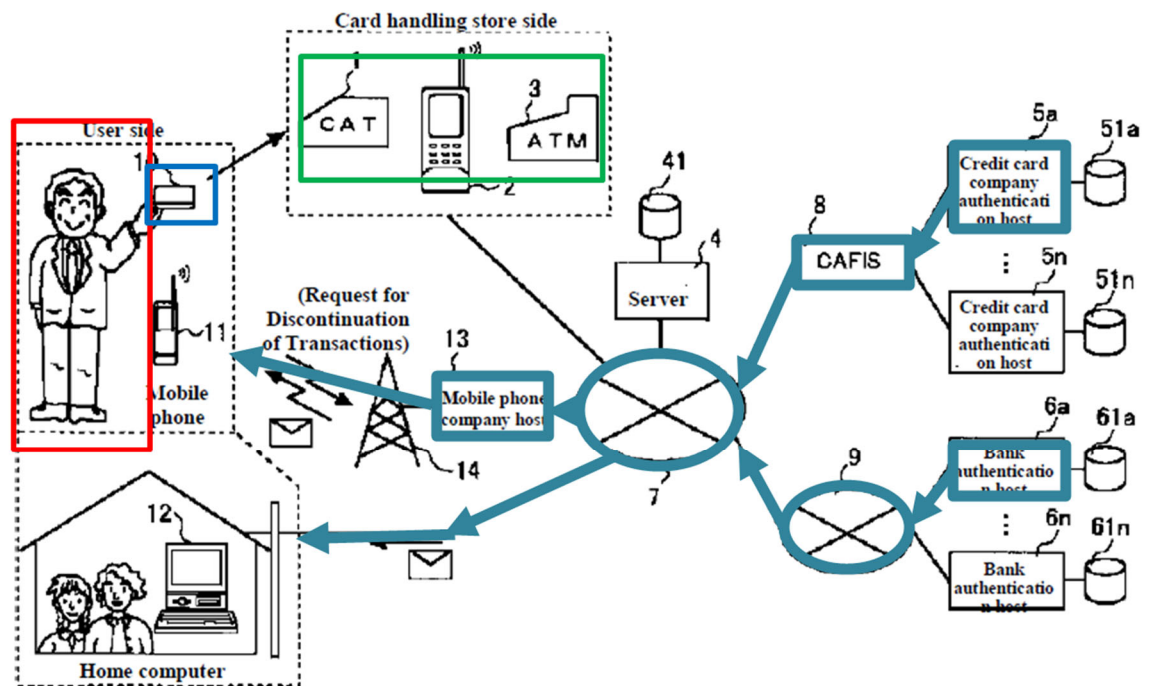
Horie was published on May 10, 2002, and is therefore prior art under pre-AIA 35 U.S.C. § 102(b). Horie was not cited during prosecution of the ’564 patent. Horie discloses “a card usage status notification method that automatically notifies a card user [] that a card payment transaction has occurred . . . using an informational terminal device such as a mobile phone or a personal computer” Ex. 1006, at [0001].

Figure 9 depicts “a schematic configuration of the entire card payment transaction system” *Id.* at [0075].

[FIG. 1]



[FIG. 1]



Ex. 1006, Figs. 1, 9 (annotated).

As shown, the method “has a card transaction terminal device . . . , an information processing company server 4, a credit card company authentication host 5 for card authentication processing when using a credit card, a bank authentication host 6 for card authentication processing when using a debit card (cash card), a network 7 connecting them, [and] a mobile phone company host 13 . . .” *Id.* at [0076]. According to Horie, “when there is a card payment transaction, a processing request for card usage status notification from the side of the card authentication host 5 to 6 is received at the server 4 once . . . and a processing request is sent from the side of the server 4 to the host of the applicable mobile phone company to make such a notification.” *Id.* at [0077].

In one embodiment of Horie, “the special processing for notification is continued until the specific signal and/or specific data is sent from the mobile phone company host 13 to the mobile phone 11.” *Id.* at [0078]. In this way, “various preset incoming behavior patterns” such as “an incoming melody, vibration in manner mode, [or] lighting of a light” “allow the mobile phone user to know that a particular card has been used for a payment transaction.” *Id.* at [0079]. Further, “specific data indicating the content of card payment transactions can be transmitted from the mobile phone company host to a mobile phone 12, and the mobile phone 12 can display the content on the display by text, etc.” *Id.*

Horie discloses as a goal “to provide a card usage status notification method

that more quickly and reliably notifies a user to that effect, thereby enabling detection of card fraud” *Id.* at [0006]. Therefore, “a father who wants to keep track of the credit card usage status of his wife and children at all times can find out more quickly and reliably without notification from his family.” *Id.* at [0013].

Horie discloses “card[s]” which can include “a credit card, a debit card” as well as “various payment transaction cards such as cash advance cards issued by consumer financial institutions.” *Id.* at [0009]. A “card payment transaction,” as described by Horie, includes “product purchases, cash advance services, deposits and withdrawals to and from bank accounts, and the like.” *Id.*

Finally, according to Horie, “when using card payment transactions, both normal card authentication processing and card usage status notification . . . are performed simultaneously.” *Id.* at [0043].

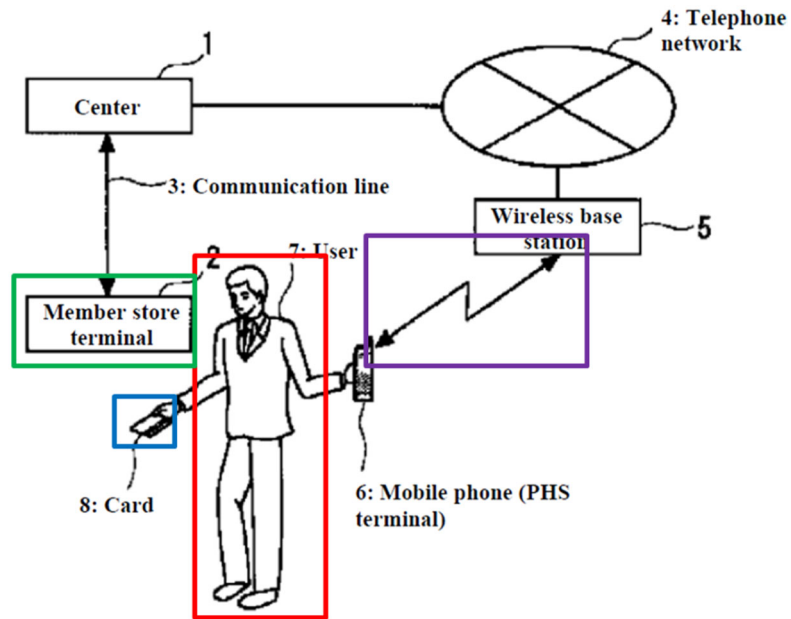
B. Kobayashi (Ex. 1007)

Kobayashi was published on November 2, 2001, and is therefore prior art under pre-AIA 35 U.S.C. § 102(b). Kobayashi was not cited during prosecution of the ’564 patent. Kobayashi discloses “a card usage status notification method that automatically notifies a card user [] that a card payment transaction has occurred . . . using an informational terminal device such as a mobile phone or a personal computer” Ex. 1007, at [0001].

Fig. 1 is “a diagram showing a system configuration of the present

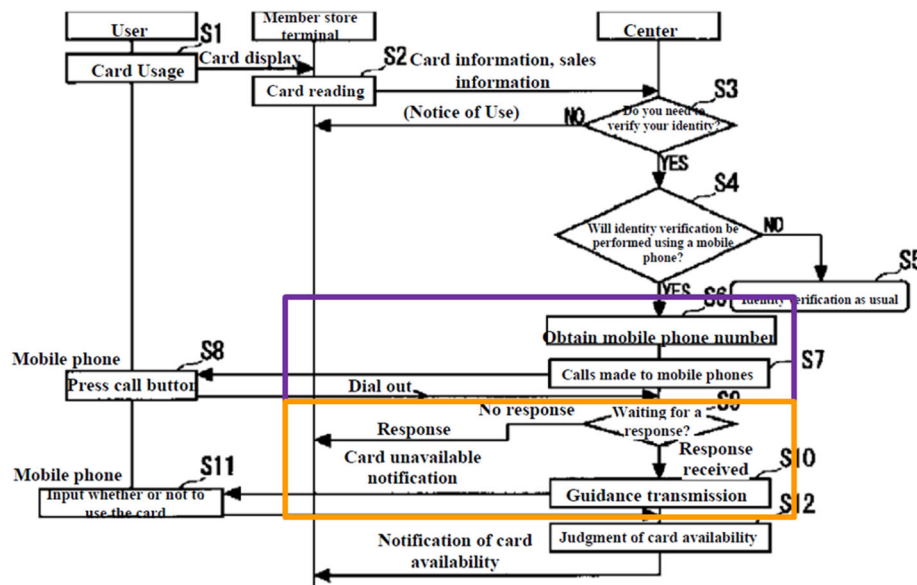
invention.” *Id.* at [0040]. Figure 4 is a diagram that explains “the processing flow of the user 7 (mobile phone 6), member store terminal 2, and center 1 in one embodiment of the present invention.” *Id.* at [0053].

[FIG. 1]



Ex. 1007, Fig. 1 (annotated).

[FIG. 4]



Ex. 1007, Fig. 4 (annotated).

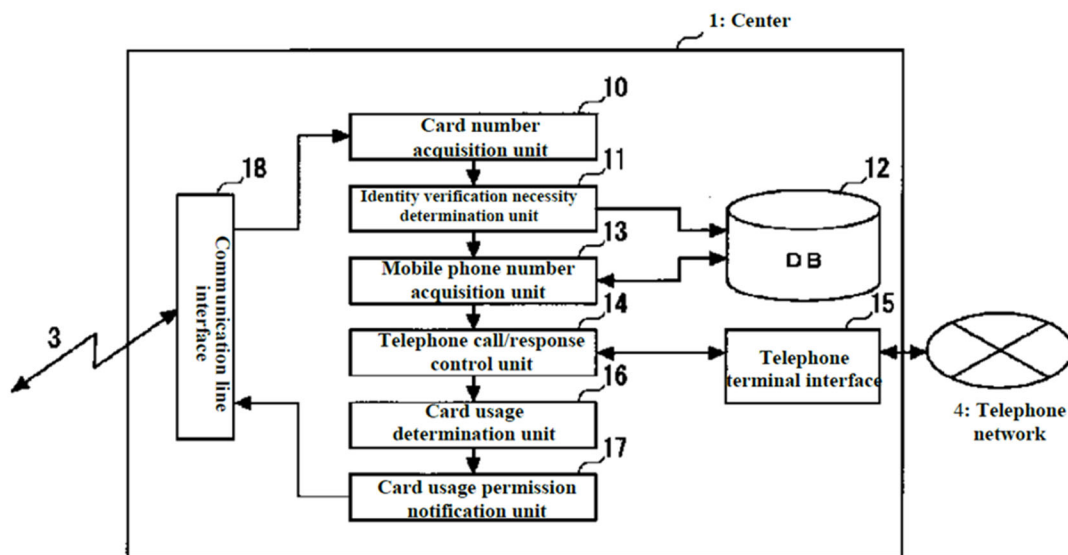
According to Kobayashi, the method includes “a **member store terminal 2** having a credit card reader, and a center 1 of a credit card company which is connected to the **member store terminal 2** via a **communication line 3** and performs card management.” *Id.* at [0040]. “When a **user 7** uses a **card** for payment at the time of purchasing a product at a card member store . . . the card information and sales information are transmitted from the **member store terminal 2** to the center 1 via [a] **communication line 3**.” *Id.* at [0042].

The center will then “retrieve[] the telephone number of the portable telephone set of **the user** registered in advance from the card number transmitted from the **member store terminal 2** and **makes a call to the portable telephone set 6**

of the user.” *Id.* at [0043]. Then if “the user makes a speech connection in response to the incoming call notice . . . that the card can be used . . . the use of the card is enabled.” *Id.* at [0044].

Figure 2 shows a process for determining whether to seek user authorization by the center. The center “includes a database 12 in which a mobile phone number, a password, and the like of a member are registered as member information in association with a card number (ID) for each member.” *Id.* at [0047]. When the center receives card information, it will “search[] a database 12 from the card number, and confirm[] whether or not a mode for performing principal confirmation by a cellular phone is set from record data corresponding to the card number.” *Id.*

[FIG. 2]



Ex. 1007, Fig. 2.

According to the invention, “[w]hen a portable telephone set 6 . . . responds to a call from a center 1 . . . and card usable information is inputted” then the card is made usable. *Id.* at [0048]. However, when the user provides “information indicating that the card cannot be used” or “when the mobile phone 6 does not respond to a call from the mobile phone 6” then the card is set to “be unavailable.” *Id.* at [0049].

The user, “[a]t the time of creating the card” will describe in the application form “whether or not to perform identity verification using a mobile phone” and the “telephone number and password of the mobile phone owned by the user.” *Id.* at [0050].

VII. Motivations to Modify and/or Combine References

A combination of familiar elements according to known methods which yields no more than predictable results is likely obvious to one of skill in the art. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007). One rationale to support a conclusion of obviousness is the use of a known technique to improve similar devices (methods, or products) in the same way. *See KSR*, 550 U.S. at 417-18; *see also* MPEP 2143(C). To establish that a modification is the use of a known technique to improve similar devices and methods in the same way, it is necessary to establish (1) that the prior art contained a “base” device/method upon which the claimed invention can be seen as an “improvement,” (2) a finding that the prior art

contained a “comparable” device/method that is not the same as the base device/method and that has been improved in the same way as the claimed invention, and (3) that the skilled artisan could have applied the known “improvement” technique in the same way to the base device/method with predictable results. *See* MPEP 2143(C); *KSR*, 550 U.S. at 415-421.

A. Motivation to Combine Horie with Kobayashi.

A POSITA would have been motivated to combine the disclosures of Horie and Kobayashi at the time of the alleged invention of the '564 patent. Ex. 1003 ¶ 66. Horie and Kobayashi both describe the same field of technology: systems and methods for commercial transaction settlement. *See, e.g.*, Ex. 1006, Abstract (“a card payment transaction system that enables online card payment transactions”); Ex. 1007, [0001] (“a method, system, and recording medium suitable for preventing unauthorized use of cards such as credit cards used by card members for product payment, financing, etc.”); Ex. 1003 ¶ 67. Furthermore, both references describe the use of similar hardware, such as mobile phones, wired and wireless networks, credit / ATM cards, and point-of-sale payment processors. *Compare* Ex. 1006, Figs. 1, 9 *with* Ex. 1007, Figs. 1, 7-10; Ex. 1003 ¶¶ 68-69. In addition, both Horie and Kobayashi are directed to systems and methods to monitor credit card usage and prevent unauthorized transactions. Ex. 1006, Abstract (“a card authentication host is provided with a means to create an email to

notify the user of a card payment transaction”); Ex. 1007, Summary (“a method and system that can confirm the user's identity when the user uses a card and prevent unauthorized use by a third party.”); Ex. 1003 ¶ 70. At least for these reasons, a POSITA would have considered these references to be analogous art. *See In re Clay*, 966 F.2d 656, 658-59 (Fed. Cir. 1992); Ex. 1003 ¶ 71.

Horie also discloses the use of transaction notifications sent to a user’s mobile device for the purpose of preventing illegal card use or fraud. *See* Ex. 1006, [0073]. However, while Horie specifically describes that “it would be possible to prevent fraudulent card use by making it possible to issue a transaction cancellation request to the authentication hosts 5 to 6 via the mobile phone 11,” Horie fails to disclose any further details on how to issue a transaction cancellation request through a mobile phone. *Id.*; Ex. 1003 ¶ 72.

Absent this detail, a POSITA seeking to implement the system described in Horie would have looked to known techniques for preventing fraudulent transactions / credit fraud via a mobile device, such as what is disclosed in Kobayashi. Ex. 1003 ¶ 73. Kobayashi, for example, discloses “a mode in which identity verification is performed by a mobile phone, the phone number of the mobile phone registered corresponding to the card number is searched and obtained from database 12 (step S6), and the phone number of the mobile phone is automatically dialed (step S7).” Ex. 1007, [0057]; Ex. 1003 ¶ 74. According to

Kobayashi, the “user enters the card acceptability input (number and #, etc. agreed with the card company) from the mobile phone 6 (Step S11). The input information indicating whether the card can be used or not may be a number determined at the time of card creation (for example, 1 for usable and 0 for unusable), or a predetermined operation button.” Ex. 1007, [0060]; Ex. 1003 ¶ 74. Based on that input information, the “center 1 judges the card usage permission information transmitted from the mobile phone 6, determines whether the card can be used (step S12), and notifies the member store terminal 2 of the determination result of the usage permission.” Ex. 1007, [0061]; Ex. 1003 ¶ 74.

Because Horie and Kobayashi are within the same technological field and describe the use of the same types of hardware to achieve similar results, a POSITA would consider the use of Kobayashi’s fraud prevention interface to be an improvement on the system described in Horie, which itself does not provide any technical details on how to issue a transaction stop request through a mobile phone. Ex. 1003 ¶ 75. A POSITA would have found this implementation to be a straightforward combination of prior art elements and the use of a known technique (Kobayashi) to improve a similar system (Horie) in the same way. Ex. 1003 ¶ 75. Given the similar technology and hardware described in both references, a POSITA would have had a reasonable expectation of success in combining these disclosures. Ex. 1003 ¶ 76. The use of Kobayashi’s input

information to provide card usage authorization by a customer from the customer's mobile phone would have been nothing more than a predictable use of known mobile technology according to its established function of sending and receiving data via a cellular or wireless network. *See KSR*, 550 U.S. at 417; Ex. 1003 ¶ 76.

Furthermore, a POSITA would have been motivated and encouraged to combine these references in this manner because Kobayashi describes an efficient method for processing a transaction stop request using known hardware that would have been inexpensive to implement in the system described in Horie without requiring, for example, modifications to the hardware and system architecture already described and implemented in Horie. Ex. 1003 ¶ 76. A POSITA would have seen Kobayashi's input information as an improvement to the system disclosed in Horie because Horie does not describe any implementation details of how to issue a "transaction cancellation request to the authentication host," and Kobayashi describes an efficient, simple solution for that feature that would have been possible without any changes to the hardware of the mobile device described in Horie. Ex. 1003 ¶ 76.

VIII. Full Statement of the Reasons for the Relief Requested.

A. GROUND 1: Claims 1-9 should be cancelled as anticipated by Horie.

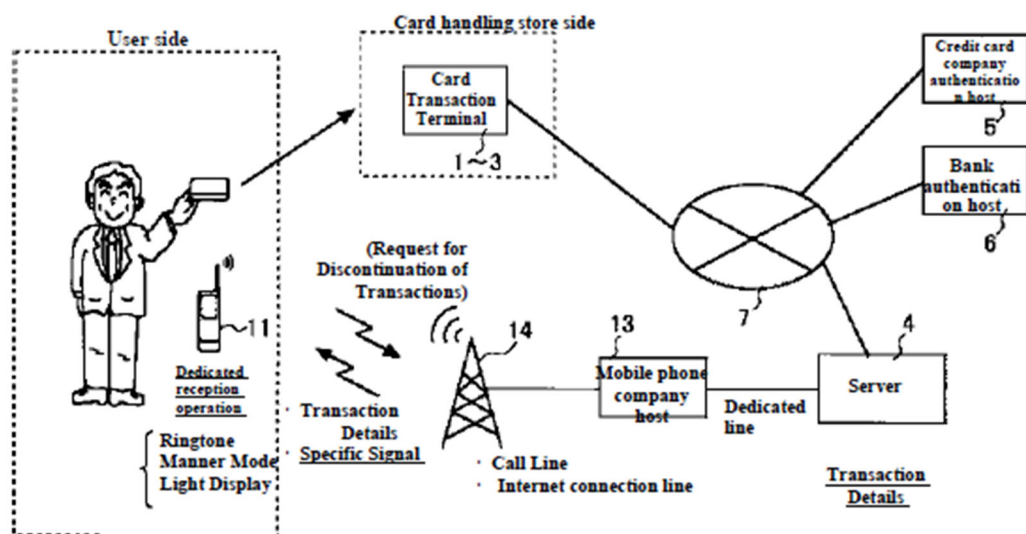
Horie discloses each element of claims 1 through 9 and therefore anticipates each challenged claim 1 through 9 ("Ground 1").

1. Independent claim 1.

- i. **Preamble** – A method for processing a transaction, comprising the steps of:

To the extent the preamble is limiting, it is disclosed by Horie. Ex. 1003 ¶¶ 209. Horie “relates to a card usage status notification method that automatically notifies a card user, etc. that a card payment transaction has occurred via a network, and a card payment transaction system using the same method.” Ex. 1006, at [0001].

The method of Horie is shown in Figure 9, below:



Ex. 1006, Fig. 9; Ex. 1003 ¶¶ 210-211.

- ii. **Element [1a]** – receiving a **request** for authorizing a transaction account, said request received via a **first transmission channel**, said request including at least an identification of the customer's account;

Horie discloses this limitation. Horie discloses “a **card authorization processing request**” where a “transaction terminal device” reads “card information,

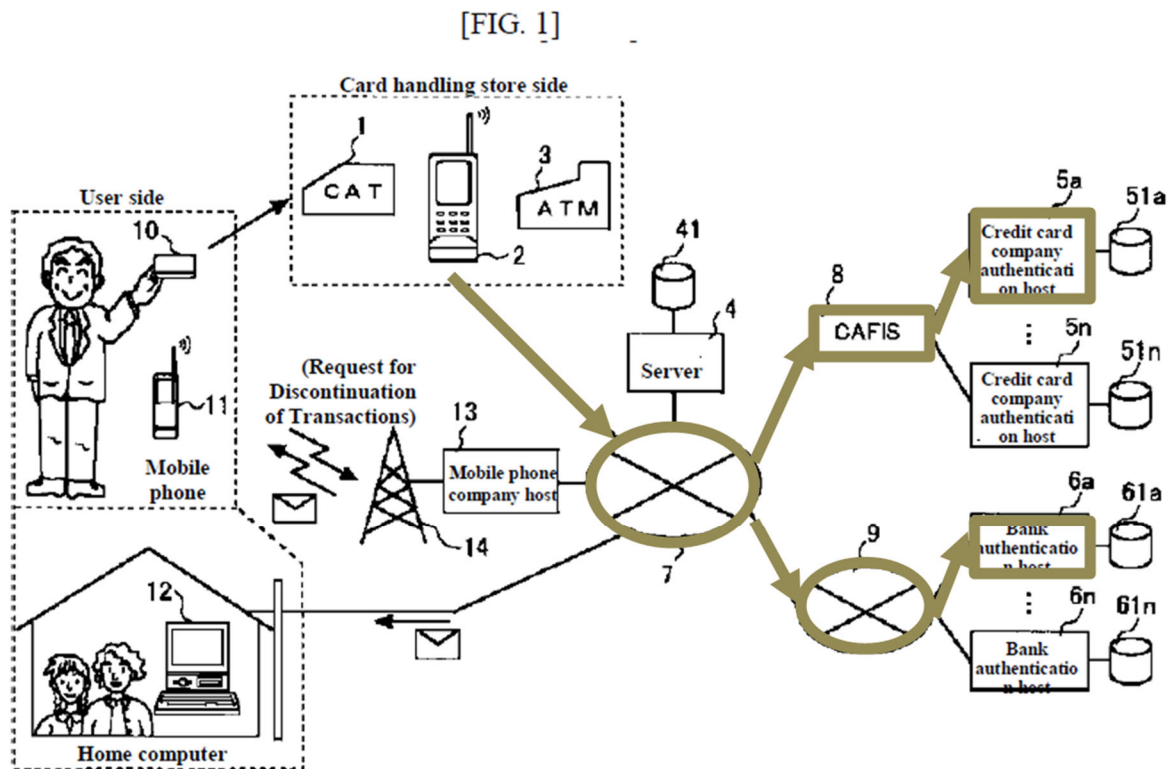
transaction details information, and other necessary information” and sends the information to a “card authentication host.” Ex. 1006, at [0046]-[0048]. Horie also discloses that there is “a network” that connects “a card transaction terminal device” to “a credit card company authentication host” or a “bank authentication host.” *Id.* at [0076].

A POSITA would have understood that “card information” and “necessary information” are an identification of a customer’s account, since a card is uniquely tied to a specific customer so that the card company knows who to properly charge. Ex. 1003 ¶ 213.

Horie further discloses that “when [a] card 10 owned by a card user is used for payment transactions via card transaction terminal devices 1 to 3, card authentication processing is performed between card transaction terminal devices 1 to 3 and each authentication host via CAFIS 8, and an email is sent from the side of server 4 to the mobile phone 11 owned by the card user and the PC 12 owned by the card user at home to notify the user that there was a card payment transaction.” Ex. 1006, [0044]. Ex. 1003 ¶ 214. See Fig. 1 below. The “first transmission channel” disclosed by Horie is the communication line(s) from the “CAT 1 installed in a card handling store, [or] a portable wireless CAT 2...[or] an ATM 3 installed in a bank” (Ex. 1006, [0039]; through the “server 4” (Ex. 1006, [0040]); the “network 7” (Ex. 1006, [0039]); the “CAFIS 8” (Ex. 1006, [0054]); and finally

to the “credit card company authentication host 5a to 5n” (*Id.*); Ex. 1003 ¶ 214.

Alternatively, Horie discloses a “first transmission channel” that includes “an interbank network, which connects the network 7 and each bank authentication host 6 to 6n” instead of the CAFIS and credit card authentication hosts. Ex. 1006, [0042]; Ex. 1003 ¶ 214.



Ex. 1006, Fig. 1 (annotated).

Therefore, Horie discloses “a request received via first transmission channel” because it discloses a channel that receives the authentication request from the merchant terminals and communicates the authentication request to the credit card or bank authentication hosts. Ex. 1003 ¶¶ 214-215.

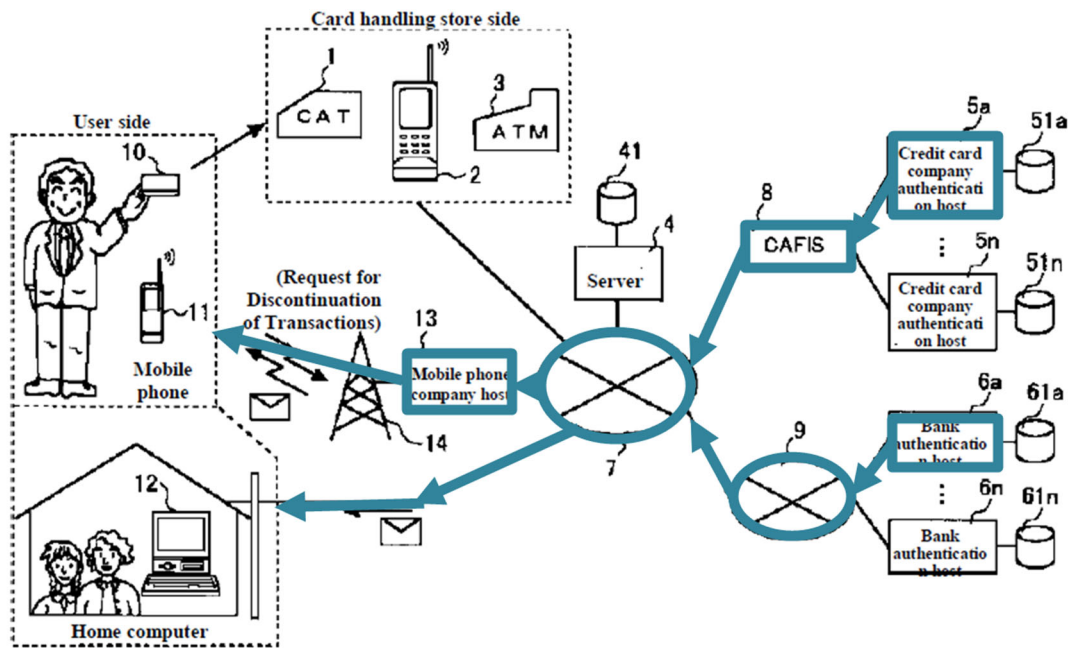
- iii. ***Element [1b]*** – determining whether or not the account includes a request for **notification** to the customer of any transactions;

Horie discloses this limitation. Horie discloses that during the transaction “a predetermined file is called for determining whether or not to notify the user of the card payment transaction” Ex. 1006, at [0057]. Ex. 1003 ¶ 217.

- iv. ***Element [1c]*** – **notifying** the customer via a **second transmission channel** only if the account includes a request for **notification** of any transactions;

Horie discloses this limitation. Ex. 1003 ¶ 218. Horie discloses that “when [a] card 10 owned by a card user is used for payment transactions via card transaction terminal devices 1 to 3, card authentication processing is performed between card transaction terminal devices 1 to 3 and each authentication host via CAFIS 8, and an email is sent from the side of server 4 to the mobile phone 11 owned by the card user and the PC 12 owned by the card user at home to notify the user that there was a card payment transaction.” Ex. 1006, [0044]. See Fig. 1 below; Ex. 1003 ¶ 219.

[FIG. 1]



Ex. 1006, Fig. 1 (annotated).

The “a second transmission channel” disclosed in Horie is the communication line(s) from the credit card or bank authentication hosts; through the CAFIS or interbank network, respectively; through the network 7 and server 4; and then through the “mobile phone company host 13” (Ex. 1006, [0076]) via a “relay base station 14” to the customer’s “mobile phone 11” (Ex. 1006, [0041]). Alternatively, Horie discloses that the notification can be sent to “a personal computer 12 owned by the card user at home [] connected to the network 7.” Ex. 1006, [0041]; Ex. 1003 ¶¶ 221, 223.

Horie further discloses that if a “notification service is not requested . . . the processing is terminated. That is . . . a normal card payment transaction is

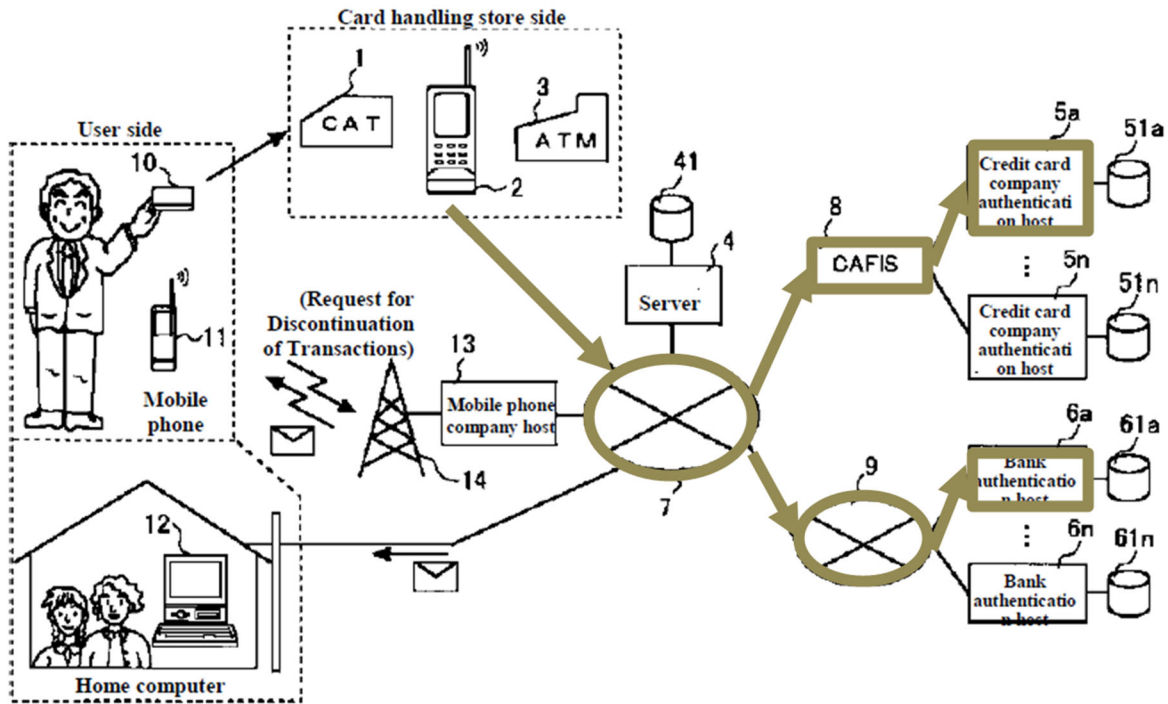
performed as usual.” Horie, [0059]. However, if the “notification service has been applied for [], a request for email transmission processing is made” and the notification is sent.” *Id.*; Ex. 1003 ¶ 221.

This notification system is extended to a mobile phone notification, since according to Horie “the special processing for notification is continued until the specific signal and/or specific data is sent from the mobile phone company host 13 to the mobile phone 11.” *Id.* at [0078]; Ex. 1003 ¶ 223.

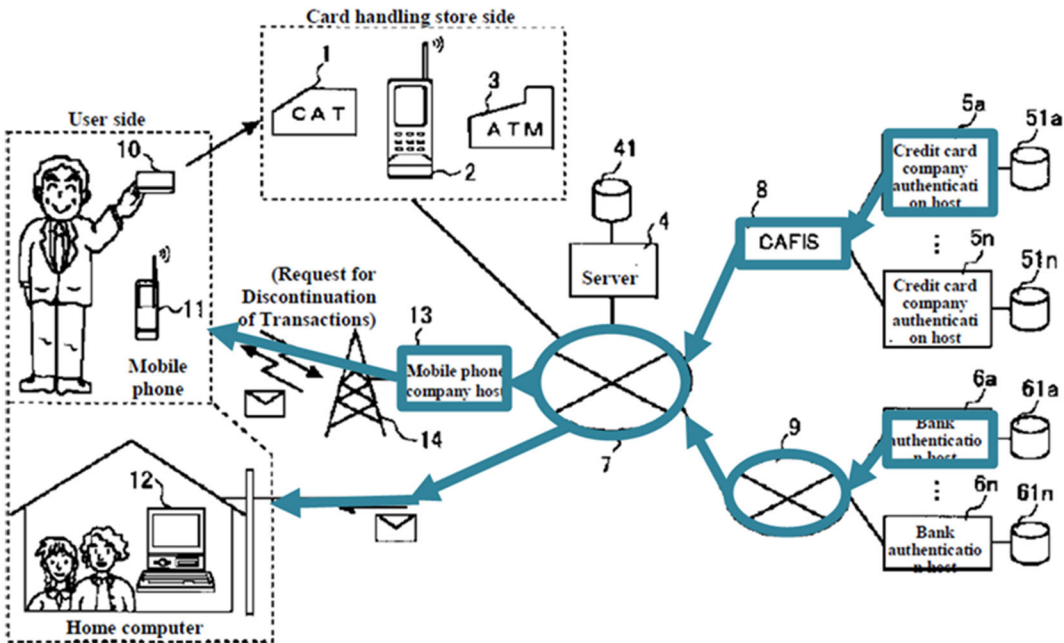
v. ***Element [1d] – the second transmission channel being distinct from the first transmission channel; and***

Horie discloses this limitation. Ex. 1003 ¶224. Horie discloses that “when [a] card 10 owned by a card user is used for payment transactions via card transaction terminal devices 1 to 3, card authentication processing is performed between card transaction terminal devices 1 to 3 and each authentication host via CAFIS 8, and an email is sent from the side of server 4 to the mobile phone 11 owned by the card user and the PC 12 owned by the card user at home to notify the user that there was a card payment transaction.” Ex. 1006, [0044]. See Fig. 1 below.

[FIG. 1]



[FIG. 1]



Ex. 1006, Fig. 1 (annotated).

Therefore, in Horie, the “first transmission channel” and the “second transmission channel” are distinct because the “first transmission channel” includes the CAT / wireless CAT / ATM, and the wired/wireless connection between those devices and the network 7, and does not include the wired/wireless connections between network 7 and the customer’s home computer 12 or the mobile phone company host 13, relay base station 14, or the customer’s mobile phone 11. Conversely, the “second transmission channel” includes the wired/wireless connections between network 7 and the customer’s home computer 12 or the mobile phone company host 13, relay base station 14, or the customer’s mobile phone 11, and excludes the CAT / wireless CAT / ATM, and the wired/wireless connection between those devices and the network 7. Ex. 1003 ¶ 225. Moreover, Horie discloses that “mobile phone company host 13 is connected to the server 4 via a dedicated line,” which a POSITA would have understood to mean a line distinct from other lines of communication. Ex. 1003 ¶ 226.

The first and second transmission channels in Horie are also distinct from each other because Horie discloses that the channels include separate hardware components, including CATs (both wired and wireless); ATMs; servers; relay base stations; mobile phones; and home computers. Each of these devices would have at least its own processor(s), memory, and network/cellular connections, and each of these devices would have operated independent of one another in the

sending/receiving of a particular network transmission of data to another device along the channel. Ex. 1003 ¶ 227.

vi. *Element [1e] – authorizing the transaction without requiring a response from the customer.*

Horie discloses this limitation. Ex. 1003 ¶ 231. Horie discloses that a “predetermined file is called for determining whether or not to notify the user of the card payment transaction via email.” Ex. 1006, [0057]. Horie further discloses that “[w]hether or not notification is to be provided by email is recorded in advance.” *Id.* at [0057]. In one embodiment, “[i]f the email notification service is not requested . . . a normal card payment transaction is performed as usual and the process ends.” *Id.* at [0058]. Ex. 1003 ¶ 232.

Horie also discloses that “although an e-mail is sent to notify the user after the card authentication process in the card payment transaction, the e-mail can also be sent, for example, **during the card authentication process**. In such a case, for example, it would be possible to prevent fraudulent card use by making it possible to issue a transaction cancellation request to the authentication hosts 5 to 6 via the mobile phone 11.” *Id.* at [0073]; Ex. 1003 ¶ 233. This language suggests that there is an embodiment where a notification is sent *after* the authentication has been completed, and another embodiment where notification happens *before* authentication has been completed. Ex. 1003 ¶ 233. Thus, Horie discloses that, in at least one embodiment, the card will be authorized for use regardless of any

response from the customer. Ex. 1003 ¶ 233.

2. *Dependent claim 2* – The method according to claim 1, wherein the notifying step comprises sending an SMS message to the customer.

See claim 1 above. Horie anticipates this claim. Ex. 1003 ¶ 235. Horie discloses an embodiment where “when a card payment transaction occurs, the user is automatically notified of the transaction via a wireless information terminal device such as a pre-specified mobile phone.” Ex. 1006, [0018]. Horie further discloses that such notification occurs “by sending and receiving specific data via a normal phone line of a mobile phone” *Id.* at [0020]. The patent further discloses that “specific data indicating the content of card payment transactions can be transmitted from the mobile phone company host to the mobile phone 12, and the mobile phone 12 can display the content of the display by text, etc.” *Id.* at [0079]; Ex. 1003 ¶ 237. At the time of the alleged invention, a POSITA would have understood that “text” sent to a mobile phone would have typically been in the form of an SMS message, which was the most common format used at the time for the delivery of text-based transmissions of data to and from mobile phones. See Ex. 1003 ¶¶ 237-238; Ex. 1008, Abstract, 1:53-63.

3. *Dependent claim 3* – The method according to claim 1, wherein the request is from the group consisting of a customer, an account holder, an authorized person, and an unauthorized person.

As an initial matter, Claim 3 is a Markush claim because it uses the signal “group of” and lists alternatives that fulfill the claim limitation. See *Gillette Co. v.*

Energizer Holdings, Inc., 405 F.3d 1367, 1372 (Fed. Cir. 2005) (“Claim drafters often use the term ‘group of’ to signal a Markush group. A Markush group lists specified alternatives in a patent claim, typically in the form: a member selected from the group consisting of A, B, and C.”); *Multilayer Stretch Cling Film Holdings, Inc. v. Berry Plastics Corp.*, 831 F.3d 1350, 1357 (Fed. Cir. 2016) (“A Markush claim is a particular kind of patent claim that lists alternative species or elements that can be selected as part of a the claimed invention.”). The Federal Circuit has held that “the entire element [of a Markush claim] is disclosed by the prior art if one alternative in the Markush group is in the prior art.” *Fresenius USA, Inc. v. Baxter Intern., Inc.*, 582 F.3d 1288, 1298 (Fed. Cir. 2009); *see also Schering Corp. V. Geneva Pharms., Inc.*, 339 F.3d 1373, 1380 (Fed. Cir. 2003) (holding a claim invalid as anticipated when it claimed compounds in Markush form and a prior art reference disclosed one of the claimed compounds). Accordingly, disclosure in the prior art of one member of the group is sufficient to render the claim invalid as anticipated.

See claim 1 above. Horie anticipates this claim. Ex. 1003 ¶ 243. Horie states that the present invention makes it “possible to know that a **payment transaction** was performed with a card that is owned by the **customer or his family** via an information terminal device such as a mobile phone . . . so it is possible to detect **the unauthorized use** of the card early, etc...” Ex. 1006, [0081]; Ex. 1003 ¶

244.

Horie also provides an example of “a father, etc., who is the holder of an automatic debit account for credit card transactions, [who] wants to keep track of the card usage status of his wife and children at all times.” Horie, [0004]; Ex. 1003 ¶ 244. The Horie invention “provide[s] a card usage status notification method that more quickly and reliably notifies a user . . . thereby enabling early detection of card fraud” *Id.* at [0006].

A POSITA reading these disclosures would understand that Horie establishes that a transaction request can be performed by a “customer” and “account holder” since these terms are specifically stated in Horie. Ex. 1003 ¶ 245. A POSITA would understand that both “authorized persons” and “unauthorized persons” can use the card because Horie discloses that the invention allows for “the customer or his family” to detect “the unauthorized use” of the card. Ex. 1003 ¶ 245. This establishes a dichotomy between a customer and his family, who are “authorized persons,” and people who engage in “unauthorized use” and thus are “unauthorized persons.” Ex. 1003 ¶ 245.

4. *Dependent claim 4* – The method according to claim 1, wherein the request is provided from the group of consisting of an ATM, a POS terminal, a telephone and a device for virtual communication.

See claim 1 above. Horie anticipates this claim. Ex. 1003 ¶ 247. Horie discloses that “when the process is started, card information, transaction details

information, and other necessary information are sequentially read on the **card transaction terminal device side.**” Ex. 1006, [0046]. The “various type of information that have been read are [then] sent as data to each card authentication host . . . **thereby issuing a card authentication processing request.**” *Id.* at [0048]; Ex. 1003 ¶ 249.

According to Horie, “examples of [a] ‘card transaction terminal device’ includes **CAT (wireless CAT etc. may also be used), ATM, Kiosk terminal device, etc.**” Horie, [0025]. Horie further states that transaction details from a CAT include the “product purchase[d]” and the “purchase amount.” *Id.* at [0047]. Therefore, Horie anticipates this limitation because Horie directly discloses an “ATM” as being able to send the request. Ex. 1003 ¶ 250.

Claim 4 is a Markush claim because it uses the signal “group of” and lists alternatives that fulfill the claim limitation. Accordingly, disclosure in the prior art of one member of the group is sufficient to render the claim invalid as anticipated. *See* Part VIII.A.3, *supra*. Here, because Horie explicitly discloses an “ATM” as sending a request, Claim 4 is anticipated because of the claim’s Markush form. Ex. 1003 ¶ 250.

5. Dependent claim 5 – The method according to claim 1, wherein the **request is a **virtual request provided via the Internet.****

See claim 1. Horie anticipates this claim. Ex. 1003 ¶ 252. Horie claims “in another aspect of the card payment transaction system of the first embodiment of

the present invention, a server is further connected through a network in a card payment transaction system that enables online card payment transactions through data communication between the card transaction terminal device and the card authentication host, and the server is provided with a means for creating an email to notify the user of such a card payment transaction, and a means for sending said created email to a destination designated in advance for each card.” Ex. 1006, [0029]. Thus, Horie discloses a request provided via the Internet because a POSITA would have understood that an email, a server, and networks would describe the internet at the time of the invention. *See* Ex. 1003 ¶ 252.

6. *Dependent claim 6* – The method according to claim 1, wherein the transaction is selected from the group consisting of credit card, debit card, charge card, and ATM.

See claim 1. Horie anticipates this claim. Ex. 1003 ¶ 254. Horie discloses that a “‘card’ includes, for example, a credit card, a debit card, and the like” as well as “cash advance cards issued by consumer financial institutions.” Ex. 1006, [0009]. Further, Horie specifically discloses an “ATM” as a card transaction terminal device. *Id.* at [0025]; Ex. 1003 ¶ 256.

Similar to claims 3 and 4, claim 6 is a Markush claim and thus if one of the alternatives in the group is disclosed in the prior art, the entire element is disclosed. *See* Part VIII.A.3, *supra*. Therefore, since Horie explicitly discloses a credit card, a debit card, and an ATM, it discloses all of the limitations because of the claim’s

Markush form. Ex. 1003 ¶ 257.

7. *Dependent claim 7* – The method according to claim 1, wherein the **first transmission channel is selected from the group consisting of wireless and landline channels.**

See claim 1. Horie anticipates this claim. Ex. 1003 ¶ 259. Horie discloses “a card authorization processing request” where a “transaction terminal device” reads “card information, transaction details information, and other necessary information” and sends the information to a “card authentication host.” Ex. 1006, at [0046]-[0048]. Horie also discloses that there is “**a network**” that connects “a card transaction terminal device” to “a credit card company authentication host” or a “bank authentication host.” *Id.* at [0076]. Horie further discloses that a “‘card transaction terminal device’ [can] include[] CAT (wireless CAT etc. may also be used), ATM, Kiosk terminal device, etc.” *Id.* at [0025]; Ex. 1003 ¶ 260.

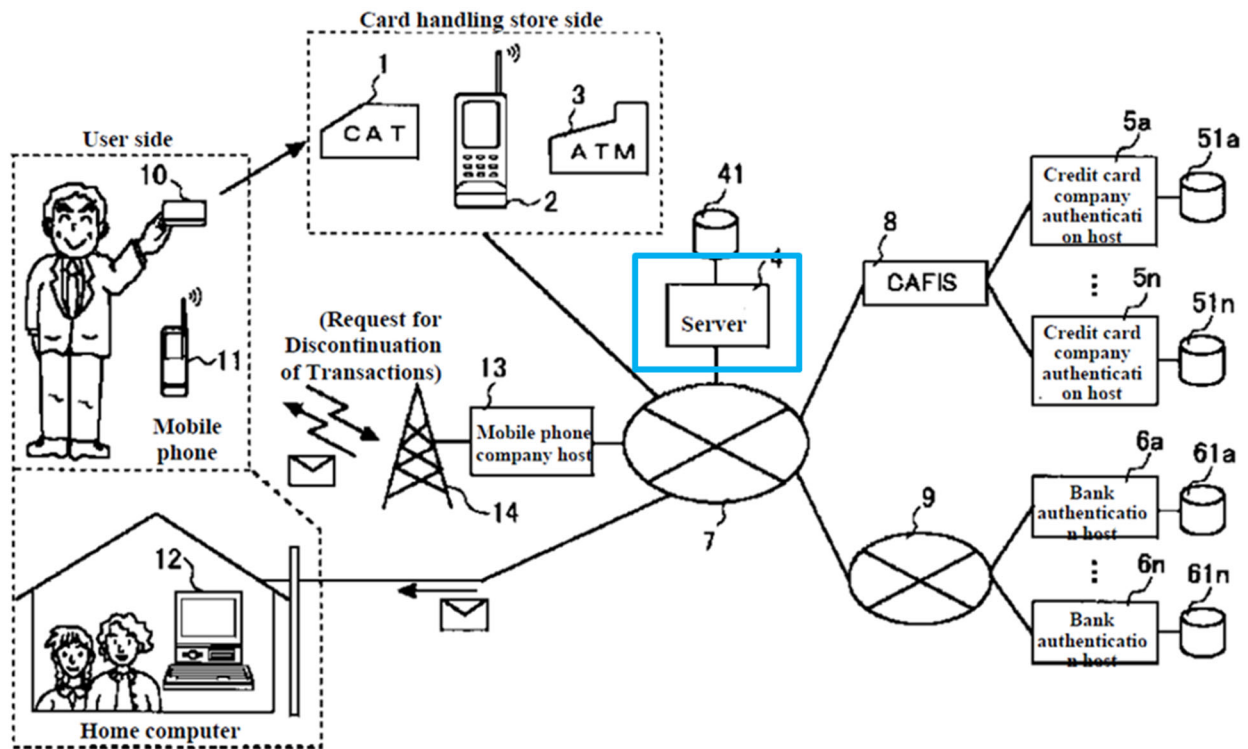
Similar to claims 3, 4, and 6, claim 7 is a Markush claim and thus if one of the alternatives in the group is disclosed in the prior art, the entire element is disclosed. *See* Part VIII.A.3, *supra*. In the case of Horie, however, both wireless and landline transmission channels are disclosed as comprising the “first transmission channel.” Horie expressly discloses that a “wireless CAT, etc. may also be used.” Ex. 1006, [0025]; Ex. 1003 ¶ 262. A POSITA would have understood a “wireless CAT” to be a card access terminal with a wireless connection to a network. Ex. 1003 ¶ 262. For example, Horie describes that

device as a “portable wireless CAT 2 suitable for use in door-to-door sales.” Ex. 1006, [0039]. As explained above, the wireless CAT sends a request for authorization through the network to the card/bank authentication hosts, and because the CAT does so through a wireless connection the “first transmission channel” includes a wireless channel. Ex. 1003 ¶ 262.

Alternatively, Horie discloses a “CAT 1 installed in a card handling store” and “an ATM 3 installed in a bank.” Horie, [0039]. A POSITA would have understood that because these devices would be “installed” in a store or bank they would be connected to the network by a wired (*i.e.* landline) connection. Ex. 1003 ¶ 263. This understanding is further supported by Horie’s distinction between a “CAT” and a “wireless CAT,” which shows that the “CAT 1” would have had a wired landline. Ex. 1003 ¶ 263.

8. *Dependent claim 8 – The method of claim 1, which comprises receiving the request at a remote processing facility.*

See claim 1. Horie anticipates this claim. Ex. 1003 ¶ 265. Horie discloses “a card payment transaction system . . . [that] includes a CAT 1 installed in a card handling store, a portable wireless CAT 2 suitable for use in door-to-door sales, etc., and an ATM 3 installed in a bank etc., an information processing company server (hereinafter simply referred to as server) 4 that executes various processes for notifying card usage status” Ex. 1006, [0039]; Ex. 1003 ¶ 266. This server is highlighted in Figure 1 below.



Ex. 1006, Ex. 1 (annotated).

Additionally, Horie also discloses “a credit card authentication host 5a to 5n that performs card authentication processing when using a credit card, bank authentication hosts 6a to 6n for performing card authentication processing when using a debit card (cash card), and a network 7 that connects them.” Ex. 1006, [0039]. These are further examples of Horie’s disclosure of receiving the request at a remote processing facility. Ex. 1003 ¶ 266.

As can be seen in the figure, the server (4) and authentication hosts (5a-n and 6a-n) are “remote” compared to the card transaction terminals because each is located in a different site than the card transaction terminals. Ex. 1003 ¶ 267.

Therefore, Horie discloses receiving the card authentication request at a remote processing facility. Ex. 1003 ¶ 267.

9. *Dependent claim 9* – The method according to claim 1, wherein said steps of notifying and authorizing are performed substantially concurrently.

See claim 1. Horie anticipates this claim. Ex. 1003 ¶ 269. Horie discloses that “when using card payment transactions, both normal card authentication processing and card usage status notification via email are performed simultaneously.” Ex. 1006, [0043]; Ex. 1003 ¶ 270.

B. GROUND 2: Claims 1-9 should be cancelled as obvious by Horie in combination with the knowledge of a POSITA.

The combination of Horie and the knowledge of a POSITA (“Ground 2”) teaches or renders obvious each element of the claims 1 through 9, and each challenged claim 1 through 9 as a whole.

1. *Independent claim 1.*

i. *Preamble* – A method for processing a transaction, comprising the steps of:

See analysis for claim 1, preamble, in Section VIII.A.1.i.

ii. *Element [1a]* – receiving a request for authorizing a transaction account, said request received via a first transmission channel, said request including at least an identification of the customer’s account;

See analysis for claim 1, element a, in Section VIII.A.1.ii.

- iii. ***Element [1b]*** – determining whether or not the account includes a request for **notification** to the customer of any transactions;

See analysis for claim 1, element b, in Section VIII.A.1.iii.

- iv. ***Element [1c]*** – **notifying** the customer via a **second transmission channel** only if the account includes a request for **notification** of any transactions;

See analysis for claim 1, element c, in Section VIII.A.1.iv.

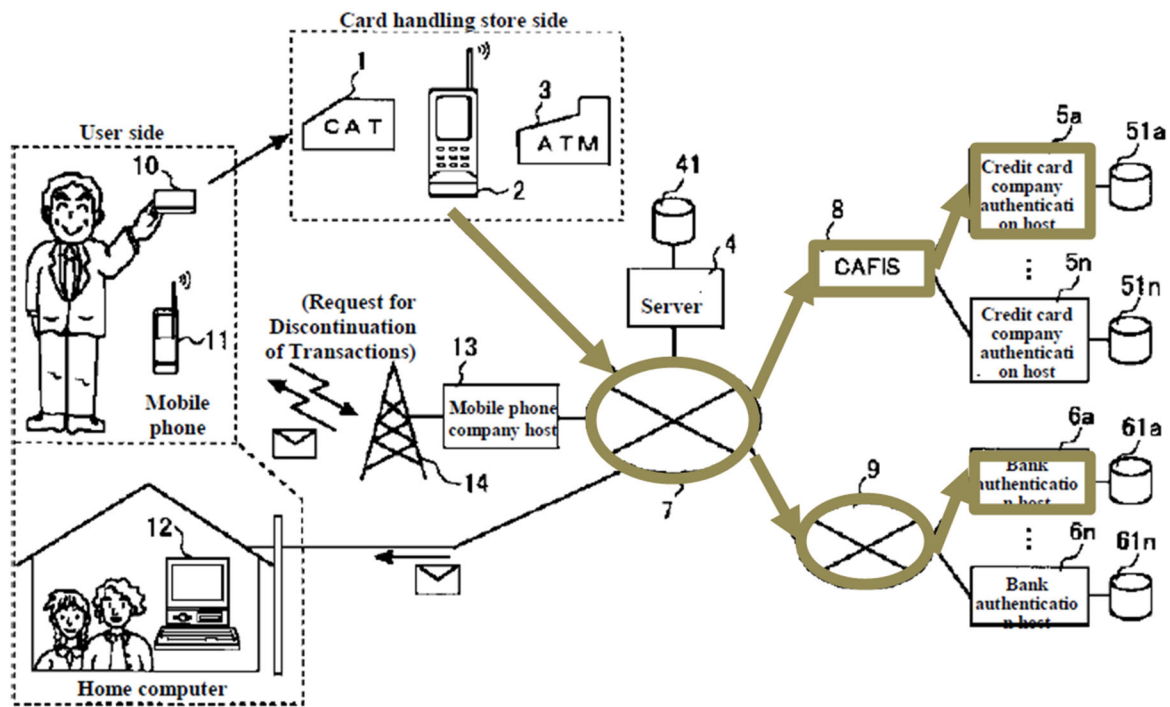
- v. ***Element [1d]*** – the **second transmission channel** being distinct from the **first transmission channel**; and

See analysis for claim 1, element d, in Section VIII.A.1.v. To the extent that Horie does not disclose that the second transmission channel is distinct from the first transmission channel, a POSITA would have understood that the transmission channels were distinct. Ex. 1003 ¶ 228. Therefore, in Horie, the “first transmission channel” and the “second transmission channel” are distinct because the “first transmission channel” includes the CAT / wireless CAT / ATM, and the wired/wireless connection between those devices and the network 7, and does not include the wired/wireless connections between network 7 and the customer’s home computer 12 or the mobile phone company host 13, relay base station 14, or the customer’s mobile phone 11. Conversely, the “second transmission channel” includes the wired/wireless connections between network 7 and the customer’s home computer 12 or the mobile phone company host 13, relay base station 14, or the customer’s mobile phone 11, and excludes the CAT / wireless CAT / ATM,

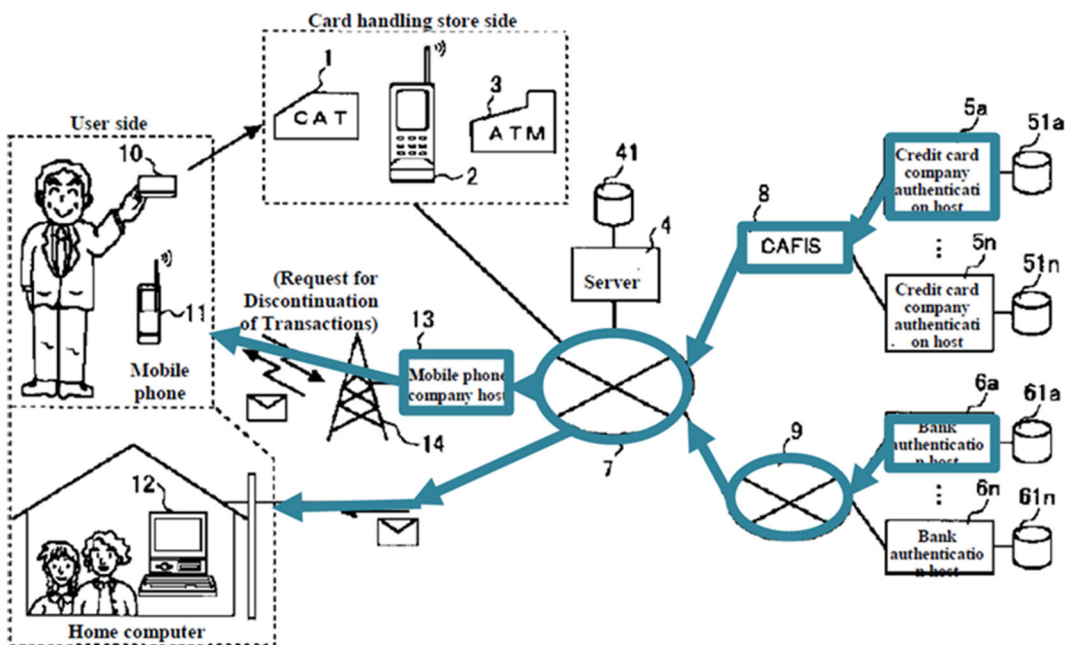
and the wired/wireless connection between those devices and the network 7. Ex. 1003 ¶ 229. Moreover, Horie discloses that “mobile phone company host 13 is connected to the server 4 via a dedicated line,” which a POSITA would have understood to mean a line distinct from other lines of communication. Ex. 1003 ¶ 229.

The first and second transmission channels in Horie are also distinct from each other because Horie discloses that the channels include separate hardware components, including CATs (both wired and wireless); ATMs; servers; relay base stations; mobile phones; and home computers. Ex. 1003 ¶ 230. Each of these devices would have at least its own processor(s), memory, and network/cellular connections, and each of these devices would have operated independent of one another in the sending/receiving of a particular network transmission of data to another device along the channel. Ex. 1003 ¶ 230.

[FIG. 1]



[FIG. 1]



Ex. 1006, Fig. 1 (annotated).

- vi. ***Element [1e] – authorizing the transaction without requiring a response from the customer.***

See analysis for claim 1, element e, in Section VIII.A.1.vi.

- 2. ***Dependent claim 2 – The method according to claim 1, wherein the notifying step comprises sending an SMS message to the customer.***

See analysis for claim 2 in Section VIII.A.2. To the extent that Horie does not disclose sending an SMS message to the customer, this would have been obvious in view of the disclosure of Horie. Ex. 1003 ¶ 239. Although Horie does not expressly use the term “SMS,” Horie discloses that “specific data indicating the content of card payment transactions can be transmitted from the mobile phone company host to the mobile phone 12, and the mobile phone 12 can display the content on the display by text, etc.” Ex. 1006, [0079]. At the time of the alleged invention, a POSITA would have understood that “text” sent to a mobile phone would have typically been in the form of an SMS message, which was the most common format used at the time for the delivery of short-form, text-based transmissions of data to and from mobile phones. *See* Ex. 1003 ¶ 240; Ex. 1008, Abstract, 1:53-63.

- 3. ***Dependent claim 3 – The method according to claim 1, wherein the request is from the group consisting of a customer, an account holder, an authorized person, and an unauthorized person.***

See analysis for claim 3 in Section VIII.A.3.

4. ***Dependent claim 4*** – The method according to claim 1, wherein the **request** is provided from the group of consisting of an **ATM, a POS terminal, a telephone and a device for virtual communication**.

See analysis for claim 4 in Section VIII.A.4.

5. ***Dependent claim 5*** – The method according to claim 1, wherein the **request** is a **virtual request provided via the Internet**.

See analysis for claim 5 in Section VIII.A.5.

6. ***Dependent claim 6*** – The method according to claim 1, wherein the transaction is selected from the group consisting of **credit card, debit card, charge card, and ATM**.

See analysis for claim 6 in Section VIII.A.6.

7. ***Dependent claim 7*** – The method according to claim 1, wherein the **first transmission channel** is selected from the group consisting of wireless and landline channels.

See analysis for claim 7 in Section VIII.A.7.

8. ***Dependent claim 8*** – The method of claim 1, which comprises **receiving the request at a remote processing facility**.

See analysis for claim 8 in Section VIII.A.8.

9. ***Dependent claim 9*** – The method according to claim 1, wherein said steps of **notifying** and **authorizing** are performed substantially concurrently.

See analysis for claim 9 in Section VIII.A.9.

C. GROUND 3: Claims 10-19 should be cancelled as obvious by Horie in view of Kobayashi and the knowledge of a POSITA.

The combination of Horie, Kobayashi and the knowledge of a POSITA

(“Ground 3”) teaches or renders obvious each element of the claims 10 through 19,

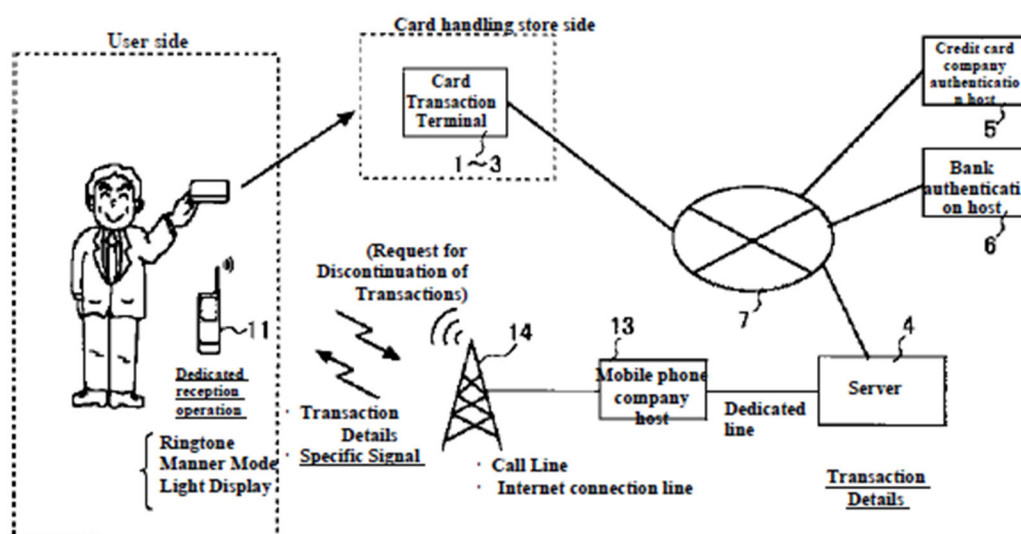
and each challenged claim 10 through 19 as a whole.

10. Independent claim 10.

i. Preamble – A method for processing a transaction, comprising the steps of:

To the extent the preamble is limiting, it is obvious in view of Horie and Kobayashi. Ex. 1003 ¶ 271. Horie “relates to a card usage status notification method that automatically notifies a card user, etc. that a card payment transaction has occurred via a network, and a card payment transaction system using the same method.” Ex. 1006, at [0001]; Ex. 1003 ¶ 272.

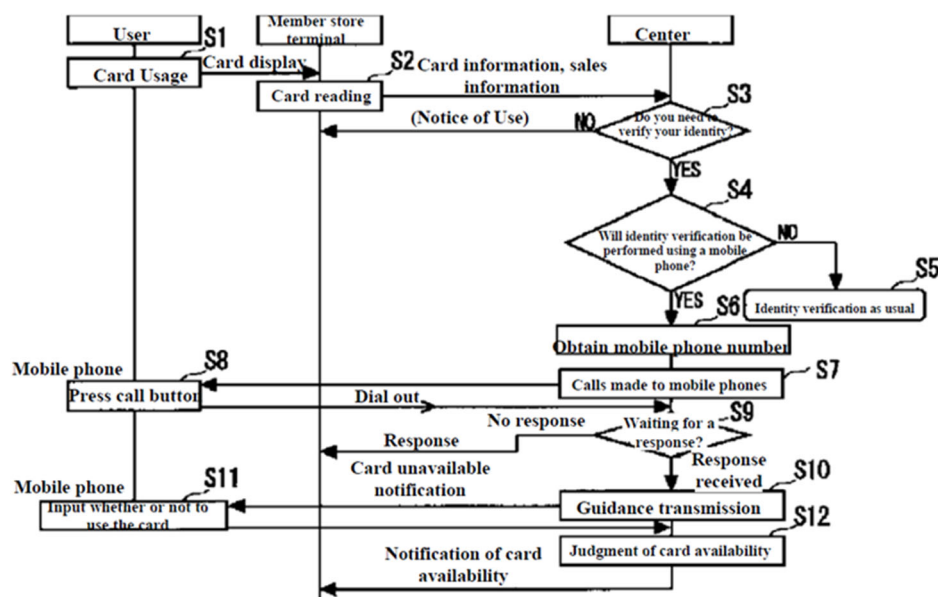
The method of Horie is shown in Figure 9, below:



Ex. 1006, Fig. 9.

Similarly, Kobayashi “relates to the unauthorized use prevention method and system of a card” when “a card user uses a card.” Ex. 1007, at [0001], [0014]; Ex. 1003 ¶ 274. The method is shown in Figure 4.

[FIG. 4]



Ex. 1007, Fig. 4.

- ii. **Element [10a]** – receiving a request for authorizing a transaction account, said request received via a first transmission channel, said request including at least an identification of the customer's account;

See analysis for claim 1, element a, in Sections VIII.A.1.ii and VIII.B.1.ii.

- iii. **Element [10b]** – determining if the account includes a request for notification to the customer of any transactions;

See analysis for claim 1, element b, in Sections VIII.A.1.iii and VIII.B.1.iii.

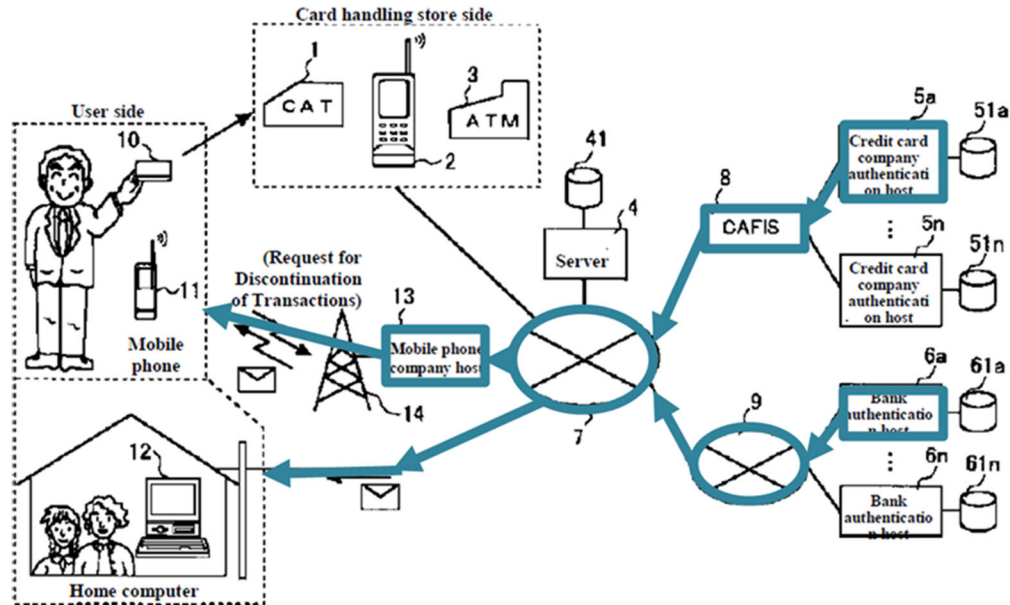
- iv. *Element [10c]* – sending a notification to the customer via a second a second transmission channel only if the account includes a request for notification of at least one form of transaction;**

Horie in view of Kobayashi renders this limitation obvious. Ex. 1003 ¶ 277.

Kobayashi discloses that when a “center 1 receives the [card and transaction] information from the member store terminal . . . and in the case where the identification is not required . . . [the terminal] is notified that the card can be used, and the normal card settlement processing is performed.” Ex. 1007, [0055]. However, “[w]hen a mode for performing identity confirmation by a portable telephone set is set, . . . the telephone number of the portable telephone set is automatically dialed” in order to notify the card user. *Id.* at [0057]. Ex. 1003 ¶ 278.

Horie discloses that “when [a] card 10 owned by a card user is used for payment transactions via card transaction terminal devices 1 to 3 card authentication processing is performed between card transaction terminal devices 1 to 3 and each authentication host via CAFIS 8, and an email is sent from the side of server 4 to the mobile phone 11 owned by the card user and the PC 12 owned by the card user at home to notify the user that there was a card payment transaction.” Ex. 1006, [0044]; Ex. 1003 ¶ 279. See. Fig. 1 below.

[FIG. 1]



Ex. 1006, Fig. 1 (annotated).

Thus, Horie discloses notification via “a second transmission channel” because the notification in Horie is sent via the wired/wireless connections between network 7 and the customer’s home computer 12 or the mobile phone company host 13, relay base station 14, or the customer’s mobile phone 11, and excludes the CAT / wireless CAT / ATM, and the wired/wireless connection between those devices and the network 7. Ex. 1003 ¶ 280. Moreover, Horie discloses that “mobile phone company host 13 is connected to the server 4 via a dedicated line,” which a POSITA would have understood to mean a line distinct from other lines of communication. Ex. 1003 ¶ 280.

Horie further discloses that when the method determines if a notification

should be sent, if a “notification service is not requested . . . the processing is terminated. That is . . . a normal card payment transaction is performed as usual.” Ex. 1006, [0059]. However, if the “notification service has been applied for [], a request for email transmission processing is made” and the notification is sent.” *Id.*; Ex. 1003 ¶ 280.

This notification system is extended to a mobile phone notification, since according to Horie “the special processing for notification is continued until the specific signal and/or specific data is sent from the mobile phone company host 13 to the mobile phone 11.” Horie, [0078]; Ex. 1003 ¶ 280.

v. *Element [10d]* – the second transmission channel being distinct from the first transmission channel;

See analysis for claim 1, element d, in Sections VIII.A.1.v and VIII.B.1.v.

vi. *Element [10e]* – receiving a response to the notification; and

Horie, in view of Kobayashi, renders this claim obvious. Ex. 1003 ¶ 282. Horie discloses that “[i]n addition, in the embodiment described above, although an e-mail is sent to notify the user after the card authentication process in the card payment transaction, the e-mail can also be sent, for example, during the card authentication process. In such a case, for example, it would be possible to prevent fraudulent card use by making it possible to issue a transaction cancellation request to the authentication hosts 5 to 6 via the mobile phone 11.” Ex. 1006, [0073]; Ex. 1003 ¶ 283. Thus, Horie discloses two embodiments: one where an e-mail is sent

after the authentication process has been completed, and one embodiment where the authentication process includes the customer authorizing (or not authorizing) the transaction. Ex. 1003 ¶ 283. In this second embodiment, the customer must provide a response to the notification from the server, and so Horie discloses that the process “receive[s] a response to the notification.” Ex. 1003 ¶ 283.

Kobayashi also discloses this. Kobayashi discloses that “[w]hen [a] user 7 uses a card at a member store (step S1), the member store terminal 2 reads the card (step S2), and card information and sales information are transmitted to the center 1.” Ex. 1007, [0054]; Ex. 1003 ¶ 284. Then “[w]hen set to a mode in which identity verification is performed by a mobile phone, the phone number of the mobile phone registered corresponding to the card number is searched and obtained from database 12 (step S6), and the phone number of the mobile phone is automatically dialed (step S7).” Kobayashi, [0057]. “If the user presses the call button (off-hook) in response to the ringing, etc., of the mobile phone 6 (step S8), the center 1 receives this response (“response received” in step S9) and sends guidance (step S10).” *Id.* at [0058]. Thus, Kobayashi discloses that the process “receive[s] a response to the notification.” Ex. 1003 ¶ 284.

vii. *Element [10f] - authorizing the transaction only if the response is proper.*

Horie discloses this limitation. Ex. 1003 ¶ 285. Horie discloses that “[i]n addition, in the embodiment described above, although an e-mail is sent to notify

the user after the card authentication process in the card payment transaction, the e-mail can also be sent, for example, during the card authentication process. In such a case, for example, it would be possible to prevent fraudulent card use by making it possible to issue a transaction cancellation request to the authentication hosts 5 to 6 via the mobile phone 11.” Ex. 1006, [0073]. Thus, Horie discloses that when the customer is notified of the transaction during the authentication process, the customer can cancel the request, meaning that in one embodiment of Horie the authorization will only occur if the response from the customer is proper. Ex. 1003 ¶ 286.

Kobayashi also discloses this limitation. Ex. 1003 ¶ 285. Kobayashi discloses that when the password entered by the user does not match the password on file, even after multiple retries “it is determined that the card cannot be used. Based on the determination result of the password authentication unit 19, the card usage permission notification unit 17 notifies the member store terminal 2 whether the card can be used or not.” Ex. 1007, [0070]. However, if the passwords match, “it is determined that the user’s identity has been verified and that the card can be used.” *Id.* at [0069]. Thus, Kobayashi discloses that the card transaction will only be authorized if it receives a proper response. Ex. 1003 ¶ 287.

11. Dependent claim 11 – The method according to claim 10, wherein the request is from the group consisting of a customer and an authorized person.

See claim 10 above. Horie in view of Kobayashi and the knowledge of a POSITA renders this claim obvious. Ex. 1003 ¶ 289. Horie states that the present invention makes it “possible to know that a payment transaction was performed with a card that **is owned by the customer or his family** via an information terminal device such as a mobile phone . . . so it is possible to detect the **unauthorized use** of the card early, etc.” Ex. 1006, [0081].

Horie also provides an example of “a **father, etc., who is the holder of an automatic debit account** for credit card transactions, [who] wants to keep track of the card usage status of his wife and children at all times.” *Id.* at [0004]. The Horie invention “provide[s] a card usage status notification method that more quickly and reliably **notifies a user** . . . thereby enabling early detection of card fraud” *Id.* at [0006]; Ex. 1003 ¶ 290.

A POSITA reading these disclosures would understand that Horie establishes that a transaction request can be performed by a “customer,” since that language is quoted directly. Ex. 1003 ¶ 290. A POSITA would also understand that the request could come from an “authorized” person by using their general knowledge that family members are usually authorized to use the cards of other family members. *See* Ex. 1003 ¶ 290. Similar to claims 3, 4, 6, and 7, claim 11 is a Markush claim and thus if one of the alternatives in the group is disclosed in the prior art, the entire element is disclosed. *See* Part VIII.A.3, *supra*.

Further, the POSITA could infer that an “authorized” person can request the card transaction because the invention “detect[s] the unauthorized use of the card,” signaling either that an unauthorized person is using the card or that the card is being used inappropriately by an authorized person. Either way, this dichotomy demonstrates that Horie discloses that an “authorized” person can issue the request. *See* Ex. 1003 ¶ 290.

Kobayashi also discloses this limitation. Kobayashi discloses that the “main purpose [of the present invention] is to provide a method, device, system, and recording medium that facilitate the work of confirming on the center side that a card user is the member holding the card and prevent unauthorized use by a third party.” Ex. 1007, [0012]. Thus, Kobayashi discloses a customer since it discusses a confirmation of a “member” of a “card.” Kobayashi discloses authorized person through its uses of the phrase “prevent unauthorized use by a third party” because this establishes that there are people who are authorized to use the card and those who are unauthorized to use the card.

12. *Dependent claim 12* – The method according to claim 10, wherein the request is provided from a group consisting of an ATM, a POS terminal, a telephone and virtual.

See claim 10 above. *See* analysis for claim 4 in Sections VIII.A.4 and VIII.B.4.

13. Dependent claim 13 – The method according to claim 10, wherein the transaction is selected from the group consisting of a credit card, debit card, charge card, and ATM.

See claim 10 above. See analysis for claim 6 in Sections VIII.A.6 and VIII.B.6.

14. Dependent claim 14 - The method according to claim 10, wherein the first transmission channel is selected from the group consisting of wireless and landline channels.

See claim 10 above. See analysis for claim 7 in Sections VIII.A.7 and VIII.B.7.

15. Dependent claim 15 – The method according to claim 10, wherein the transaction is selected from the group consisting of credit cards, debit cards, and ATM cards.

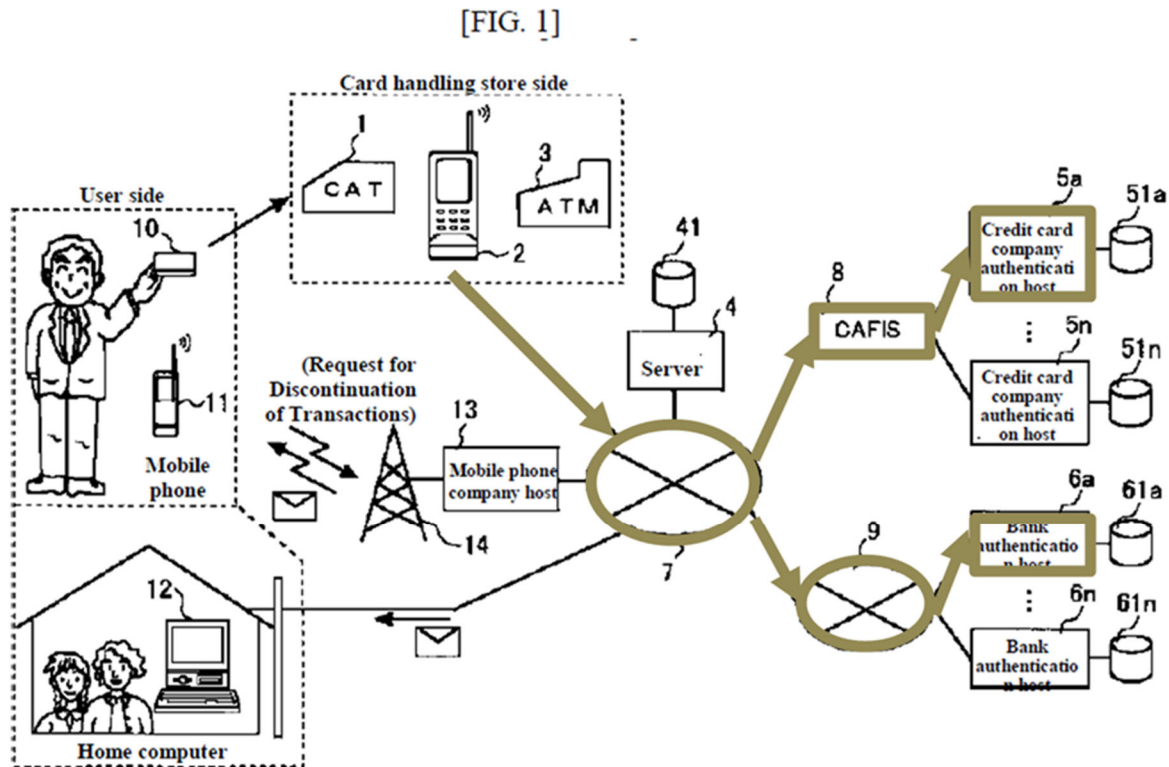
See claim 10. Horie renders this limitation obvious. Ex. 1003 ¶ 302. Horie discloses that a “card” includes, for example, a credit card, a debit card, and the like” as well as “cash advance cards issued by consumer financial institutions.” Ex. 1006, [0009]; Ex. 1003 ¶¶ 303-304. Claim 15 is a Markush claim, and because Horie explicitly discloses two of the Markush group (i.e., credit card and debit card), then the claim is rendered obvious. See Part VIII.A.3, *supra*.

16. Dependent claim 16 – The method according to claim 10, wherein the first and second transmission channels are both wireless channels.

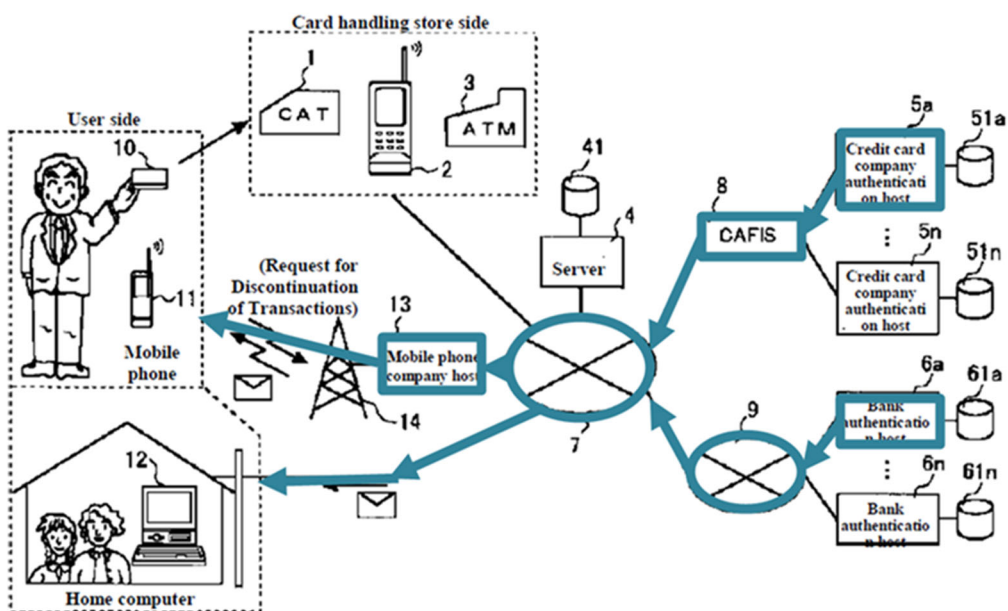
See claim 10. Horie in view of Kobayashi renders this claim obvious. Ex. 1003 ¶ 306. Horie discloses that “when [a] card 10 owned by a card user is used for payment transactions via card transaction terminal devices 1 to 3, card

authentication processing is performed between card transaction terminal devices 1 to 3 and each authentication host via CAFIS 8, and an email is sent from the side of server 4 to the mobile phone 11 owned by the card user and the PC 12 owned by the card user at home to notify the user that there was a card payment transaction.”

Ex. 1006, [0044]; Ex. 1003 ¶ 307. See Fig. 1 below.



[FIG. 1]



Ex. 1006, Fig. 1 (annotated).

Horie discloses the “first transmission channel” as being wireless. Horie expressly discloses that a “wireless CAT, etc. may also be used.” Ex. 1006, [0025]; Ex. 1003 ¶ 309. A POSITA would have understood a “wireless CAT” to be a card access terminal with a wireless connection to a network. Ex. 1003 ¶ 309. For example, Horie describes that device as a “portable wireless CAT 2 suitable for use in door-to-door sales.” Ex. 1006, [0039]; Ex. 1003 ¶ 309. As explained above, the wireless CAT sends a request for authorization through the network to the card/bank authentication hosts, and because the CAT does so through a wireless connection the “first transmission channel” includes a wireless channel. Ex. 1003 ¶ 309.

Horie also discloses a wireless “second transmission channel.” Ex. 1003 ¶ 308. Horie discloses that in one embodiment, the notification email of the second transmission channel is sent to “a wireless information terminal device such as a mobile phone having an email receiving function.” Ex. 1006, [0014]; Ex. 1003 ¶ 310. Horie also discloses that in another embodiment, the notification is sent “to the side of the wireless information terminal device specified in advance for notifying.” Ex. 1006, [0032]; Ex. 1003 ¶ 310. Therefore, Horie also discloses that the second transmission terminal is a wireless connection. Ex. 1003 ¶ 310.

17. Dependent claim 17 – The method according to claim 10, wherein the request for authorizing a transaction is received from a merchant.

See claim 10. Horie in view of Kobayashi renders this claim obvious. Ex. 1003 ¶ 312. Kobayashi discloses that “[w]hen a user 7 uses the card to pay for products purchased at a member store, the user 7 hands the card 8 of the member store to a clerk (not shown) at the member store, and the card information is read by the member store terminal 2. The card information and sales information are transmitted from the member store terminal 2 to the center 1 via the communication line 3.” Ex. 1007, [0042]. Kobayashi further states that a “member store terminal” is one that is “equipped with a credit card reading device” and that the “existing terminals at members stores [can be] used as they are.” *Id.* at [0040]; Ex. 1003 ¶ 313.

Therefore, Kobayashi discloses a “merchant” since in the Kobayashi

process, the merchant and the merchant's card reading machines handle the transaction and sending the information to the authentication center. Ex. 1003 ¶ 313.

Horie discloses that “when **card 10 owned by a card user** is used for payment transactions via **card transaction terminal devices 1** to 3, card authentication processing is performed between card transaction terminal devices 1 to 3 and each authentication host” Ex. 1006, [0044]. Horie also defines “**card transaction terminal device**” as including “**CAT (wireless CAT etc. may also be used), ATM, Kiosk terminal device, etc.**” *Id.* at [0025]; Ex. 1003 ¶ 313.

18. Dependent claim 18 – The method according to claim 10, wherein the request for authorizing a transaction is received from the group consisting of a merchant and a customer.

See claim 17. Claim 18 is a Markush claim, and because Horie discloses one of the Markush group (i.e., the request for authorizing a transaction is received from a merchant), then the claim is rendered obvious. *See* Part VIII.A.3, *supra*.

Horie and Kobayashi, along with the knowledge of a POSITA, renders this claim obvious. Ex. 1003 ¶ 315. Horie discloses that “when **card 10 owned by a card user** is used for payment transactions via **card transaction terminal devices 1** to 3, card authentication processing is performed between card transaction terminal devices 1 to 3 and each authentication host” Ex. 1006, [0044]. Horie also defines “**card transaction terminal device**” as including “**CAT (wireless CAT etc.**

may also be used), ATM, Kiosk terminal device, etc.” *Id.* at [0025]; Ex. 1003 ¶ 315.

Kobayashi discloses that “[w]hen a **user 7** uses the card to pay for products purchased **at a member store**, the **user 7** hands the card 8 of the **member store** to a **clerk (not shown) at the member store**, and the card information is read by the member store terminal 2. The card information and sales information are transmitted from the member store terminal 2 to the center 1 via the communication line 3.” Ex. 1007, [0042]. Kobayashi further states that a “member store terminal” is one that is “equipped with a credit card reading device” and that the “existing terminals at members stores [can be] used as they are.” *Id.* at [0040]; Ex. 1003 ¶ 315.

Therefore, Kobayashi discloses the “merchant” since in the Kobayashi process, the merchant and the merchant’s card reading machines handle the transaction and sending the information to the authentication center. Ex. 1003 ¶ 315.

Horie also discloses a request for authorizing a transaction being received from a customer. For example, Horie discloses that one embodiment of the process begins when a customer uses his/her card at a CAT machine, which is a Cardholder Activated Terminal. Ex. 1003 ¶ 315. *See also* Ex. 1006, [Abstract] (describing “a card payment transaction system that enables online card payment transactions

through data communication between a *card transaction terminal device* and a card authentication host”) (emphasis added); *id.* [0002] (identifying “CAT and ATM” as two “card transaction terminal devices”). Accordingly, when a customer is using a CAT or ATM, then the request for authorizing a transaction is coming from the customer. Ex. 1003 ¶ 315.

19. Dependent claim 19 – The method according to claim 10, wherein the response is selected from the group consisting of a reply to an SMS message, a key depressed during a telephone call, a PIN, a password, and a voice reply.

See claim 10. Kobayashi renders this claim obvious. Ex. 1003 ¶ 318.

Similar to claim 4, claim 19 is a Markush claim. *See Gillette Co.*, 405 F.3d at 1372. Thus, when prior art discloses one of the group, all of the claim is disclosed. *See Fresenius USA*, 582 F.3d at 1298.

Kobayashi discloses an embodiment of the invention where “the password is entered from the mobile phone 6, the telephone terminal interface 15, which received the password as a PB (push button) signal from the telephone network 4, supplies the received password (converted to a text code) to the password authentication unit 19 via the telephone call and response control unit 14.” Ex. 1007, [0068]. This discloses a “key depressed during a telephone call” limitation, and thus, all of claim 19 is rendered obvious. Ex. 1003 ¶ 318.

IX. Denial Under § 325(d) is Inappropriate.

The Board should not exercise its discretion under 35 U.S.C. § 325(d) to

deny this Petition. None of the prior art in Grounds 1 through 3 was of record or cited during examination of the '564 Patent. Thus, the first part of the *Advanced Bionics* framework is not met. *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020) (precedential) (“*Advanced Bionics*”). The Board should therefore institute review.

X. Discretionary Denial is Inappropriate.

The Board should not exercise its discretion under § 314(a) because there is no co-pending litigation between Petitioner Askeladden and the Patent Owner Calabrese Stemer, which means that the *Fintiv* framework does not apply. *See Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020). The Board should thus decline to exercise its discretion under § 314(a) and institute *inter partes* review.

XI. Conclusion.

Petitioner respectfully requests that the Board institute review and find all challenged claims unpatentable.

Dated: January 2, 2024

Respectfully submitted,

By: /Alton L. Absher III/
Alton L. Absher III
Lead Counsel for Petitioner

CERTIFICATE OF WORD COUNT

The undersigned certifies pursuant to 37 C.F.R. § 42.24(d) that the foregoing **Petition for *Inter Partes* Review** excluding any mandatory notices, table of contents, table of authorities, certificates of service or word count, or appendix of exhibits or claim listing, contains fewer than 14,000 words according to the word-processing program used to prepare this paper (Microsoft Word).

Dated: January 2, 2024

/Alton L. Absher III/
Counsel for Petitioner

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing Petition for *Inter Partes* Review was served on January 2, 2024 by Priority Mail Express upon the following counsel of record:

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Dated: January 2, 2024

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