IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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AMAZON.COM, SERVICES LLC,

Petitioner,

v.

VB ASSETS, LLC,

Patent Owner.

_____

Case: IPR2025-01167

U.S. Patent No. 11,087,385

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PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 11,087,385

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EXHIBIT LIST (37 C.F.R. § 42.63(e))

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1002	Declaration of Padhraic Smyth, Ph.D.
1003	Prosecution File History for the '385 patent
1004	U.S. Patent App. Pub. No. 2012/0284105 ("Li")
1005	U.S. Patent No. 9,922,364 ("Chen")
1006	U.S. Patent App. Pub. No. 2012/0096358 ("Barnes")
1007	U.S. Patent App. Pub. No. 2004/0193420 ("Kennewick")
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1010	Asthana, A. & Krzyzanowski, P., "A Small Domain Communications System for Personalized Shopping Assistance," Proceedings of 1994 International Conference on Personal Wireless Communications (pp. 199-203), IEEE Press (1994, August), ("Asthana")
1011	Lucente, M., "Conversational interfaces for e-commerce applications," Communications of the ACM (Sept. 2000), 43(9), 59-61, ("Lucente")
1012	Huang, X. et al., "Spoken Language Processing: A Guide to Theory, Algorithm, and System Development," Prentice Hall (2001) ("Huang")
1013	Heinroth, T. et al., "Introducing Spoken Dialogue Systems into Intelligent Environments," Springer (2013) ("Heinroth")
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1019	Curriculum Vitae of Padhraic Smyth, Ph.D.

CHART OF CLAIMS
[1.pre] A method for providing voice commerce, the method being implemented on a computer system having one or more physical processors programmed with computer program instructions which, when executed, perform the method, the method comprising:
[1.a] receiving, by the computer system, a single first user input comprising a natural language utterance;
[1.b] providing, by the computer system, the natural language utterance as an input to a speech recognition engine;
[1.c] obtaining, by the computer system, one or more words or phrases recognized from the natural language utterance as an output of the speech recognition engine;
[1.d] searching, by the computer system, one or more databases of products or services based on the one or more words or phrases;
[1.e] selecting, by the computer system, without further user input other than the single first user input, a product or service from the database to be purchased based on the search;
[1.f] receiving, by the computer system, a second user input indicating confirmation by a user to complete a purchase transaction of the selected product or service; and
[1.g] completing, by the computer system, without further user input after the receipt of the second user input, a purchase transaction of the selected product or service.
[2] The method of claim 1, wherein selecting the product or service further comprises: determining, by the computer system, a context based at least on the one or more words or phrases, wherein the product or service is selected based at least on the determined context.
[3] The method of claim 1, wherein completing the purchase transaction for the selected product or service comprises: obtaining, by the computer system, payment information with which to pay for the selected product or service, wherein the purchase transaction is completed based on the payment information without receiving confirmation of the payment information by the user.

CHART OF CLAIMS
[4] The method of claim 1, wherein completing the purchase transaction for the selected product or service comprises: obtaining, by the computer system, shipping information with which to deliver the selected product or service, wherein the shipping information specifies a name or address of a recipient to which the selected product or service is to be delivered after the selected product or service is purchased, and wherein the purchase transaction is completed based on the shipping information without receiving confirmation of the shipping information by the user.
[5.pre] The method of claim 1, the method further comprising:
[5.a] obtaining, by the computer system, seller information describing one or more products or services available from one or more sellers via one or more remote information sources; and
[5.b] storing, by the computer system, the seller information in the one or more databases.
[6] The method of claim 5, wherein the one or more remote information sources comprise at least a third party search engine, a third party retailer, and/or a third party service provider.
[7] The method of claim 5, wherein the method further comprises: selecting, by the computer system, a seller from which to purchase the selected product or service.
[8] The method of claim 7, wherein the seller information comprises a price at which the one or more sellers will sell the one or more products or services, wherein selecting the seller comprises selecting the seller based on the price at which the seller will sell the selected product or service.
[9] The method of claim 7, the method further comprising: obtaining, by the computer system, user profile information associated with the user, wherein the user profile information indicates a predetermined set of sellers associated with the user, wherein selecting the seller comprises selecting the seller from the predetermined set of sellers indicated by the user profile information.
[10] The method of claim 7, the method further comprising: obtaining, by the computer system, a predetermined set of sellers specified by an administrator of

CHART OF CLAIMS
the system that is different than the user, wherein selecting the seller comprises selecting the seller from the predetermined set of administrator-specified sellers.
[11.pre] The method of claim 1, wherein completing the purchase transaction of the selected product or service comprises:
[11.a] obtaining, by the computer system, payment information with which to pay for the selected product or service; and
[11.b] obtaining, by the computer system, shipping information with which to deliver the selected product or service, wherein the shipping information specifies a name or address of a recipient to which the selected product or service is to be delivered after the selected product or service is purchased, and wherein the purchase transaction is completed based on the payment information and the shipping information.
[12] The method of claim 11, the method further comprising: identifying, by the computer system, an intended recipient of the identified product or service based on the single first user input and/or the second user input, and wherein obtaining the shipping information comprises: obtaining, by the computer system, an address of the intended recipient.
[13] The method of claim 12, wherein obtaining the address of the intended recipient comprises: accessing, by the computer system, an address book of the user, wherein the address book comprises an identification of the intended recipient and the address of the intended recipient.
[14] The method of claim 11, the method further comprising: completing, by the computer system, the purchase transaction without receiving confirmation of the payment information or the shipping information by the user.
[15.pre] The method of claim 1, the method further comprising:
[15.a] providing, by the computer system, without further user input after the receipt of other than the single first user input, a request for user confirmation to complete the purchase transaction for the selected product or service, wherein the second user input is received responsive to the request;
[15.b] determining, by the computer system, that the user has confirmed the purchase transaction based on the second user input, wherein the purchase

CHART OF CLAIMS
transaction of the selected product or service is completed based on the determination.
[16] A system for providing voice commerce, the system comprising: one or more physical processors programmed with computer program instructions which, when executed, cause the one or more physical processors to: receive a single first user input comprising a natural language utterance; provide the natural language utterance as an input to a speech recognition engine; obtain one or more words or phrases recognized from the natural language utterance as an output of the speech recognition engine; search one or more databases of products or services based on the one or more words or phrases; select, without further user input other than the single first user input, a product or service from the database to be purchased based on the search; receive a second user input indicating confirmation by a user to complete a purchase transaction of the selected product or service; and complete, without further user input after the receipt of the second user input, a purchase transaction of the selected product or service.
[17] The system of claim 16, wherein to select the product or service, the one or more physical processors are further caused to: determine a context based at least on the one or more words or phrases, wherein the product or service is selected based at least on the determined context.
[18] The system of claim 16, wherein to complete the purchase transaction for the selected product or service, the one or more physical processors are further caused to: obtain, without further user input after the receipt of the user input, payment information with which to pay for the selected product or service, wherein the purchase transaction is completed based on the payment information without receiving confirmation of the payment information by the user.
[19] The system of claim 16, wherein to complete the purchase transaction for the selected product or service, the one or more physical processors are further caused to: obtain, shipping information with which to deliver the selected product or service, wherein the shipping information specifies a name or address of a recipient to which the selected product or service is to be delivered after the selected product

CHART OF CLAIMS
or service is purchased, and wherein the purchase transaction is completed based on the shipping information without receiving confirmation of the shipping information by the user.
[20] The system of claim 16, wherein the one or more physical processors are further caused to: obtain seller information describing one or more products or services available from one or more sellers via one or more remote information sources; and store the seller information in the one or more databases.
[21] The system of claim 20, wherein the one or more remote information sources comprise at least a third party search engine, a third party retailer, and/or a third party service provider.
[22] The system of claim 20, wherein the one or more physical processors are further caused to: select a seller from which to purchase the selected product or service.
[23] The system of claim 22, wherein the seller information comprises a price at which the one or more sellers will sell the one or more products or services, wherein to select the seller, the one or more physical processors are further caused to: select the seller based on the price at which the seller will sell the selected product or service.
[24] The system of claim 22, wherein the one or more physical processors are further caused to: obtain user profile information associated with the user, wherein the user profile information indicates a predetermined set of sellers associated with the user, wherein selecting the seller comprises selecting the seller from the predetermined set of sellers indicated by the user profile information.
[25] The system of claim 22, wherein the one or more physical processors are further caused to: obtain a predetermined set of sellers specified by an administrator of the system that is different than the user, wherein selecting the seller comprises selecting the seller from the predetermined set of administrator-specified sellers.

CHART OF CLAIMS
[26] The system of claim 16, wherein to complete the purchase transaction of the selected product or service, the one or more physical processors are further caused to: obtain payment information with which to pay for the selected product or service; and obtain shipping information with which to deliver the selected product or service, wherein the shipping information specifies a name or address of a recipient to which the selected product or service is to be delivered after the selected product or service is purchased, and wherein the purchase transaction is completed based on the payment information and the shipping information.
[27] The system of claim 26, wherein the one or more physical processors are further caused to: identify an intended recipient of the identified product or service based on the single first user input and/or the second user input, and wherein to obtain the shipping information, the one or more physical processors are further caused to: obtain an address of the intended recipient.
[28] The system of claim 27, wherein to obtain the address of the intended recipient, the one or more physical processors are further caused to: access an address book of the user, wherein the address book comprises an identification of the intended recipient and the address of the intended recipient.
[29] The system of claim 26, wherein the one or more physical processors are further caused to: complete the purchase transaction without receiving confirmation of the payment information or the shipping information by the user.
[30] The system of claim 16, wherein the one or more physical processors are further caused to: provide, without further user input other than the single first user input, a request for user confirmation to complete the purchase transaction for the selected product or service, wherein the second user input is received responsive to the request; determine that the user has confirmed the purchase transaction based on the second user input, wherein the purchase transaction of the selected product or service is completed based on the determination.
[31.pre] A method for providing voice commerce, the method being implemented on a computer system having one or more physical processors programmed with

CHART OF CLAIMS
computer program instructions which, when executed, perform the method, the method comprising:
[31.a] receiving, by the computer system, a single first user input comprising a natural language utterance;
[31.b] recognizing, by the computer system, one or more words or phrases from the natural language utterance;
[31.c] searching, by the computer system, one or more databases of products or services based on the one or more recognized words or phrases from the single first user input, and without using further user input other than the single first user input;
[31.d] causing, by the computer system, a set of search results to be presented to a user based on the search, the search results indicating one or more products or services from the database available for purchase;
[31.e] receiving, by the computer system, a second user input comprising a selection from the set of search results, the selection identifying one or more products or services from the database to be purchased on behalf of the user based on the second user input;
[31.f] obtaining, by the computer system, user profile information associated with the user;
[31.g] identifying, by the computer system, payment information and shipping information based on the user profile information; and
[31.h] completing, by the computer system, without further user input after identifying the payment information and the shipping information, a purchase transaction of the identified one or more products or services.
[32] The method of claim 31, wherein recognizing the one or more words or phrases from the natural language utterance comprises: providing, by the computer system, the natural language utterance as an input to a speech recognition engine; and obtaining, by the computer system, the one or more words or phrases recognized from the natural language utterance as an output of the speech recognition engine.

CHART OF CLAIMS
[33] The method of claim 31, the method further comprising: obtaining, by the computer system, seller information describing one or more products or services available from one or more sellers via one or more remote information sources; and storing, by the computer system, the seller information in the one or more databases.
[34] The method of claim 31, wherein completing the purchase transaction without further user input after identifying the payment information and the shipping information comprises: completing, by the computer system, the purchase transaction without receiving confirmation of the payment information or the shipping information by the user.
[35] A system for providing voice commerce, the system comprising: one or more physical processors programmed with computer program instructions which, when executed, cause the one or more physical processors to: receive a single first user input comprising a natural language utterance; recognize one or more words or phrases from the natural language utterance; search one or more databases of products or services based on the one or more recognized words or phrases from the single first user input, and without using further user input other than the single first user input; cause a set of search results to be presented to a user based on the search, the search results indicating one or more products or services from the database available for purchase; receive a second user input comprising a selection from the set of search results, the selection identifying one or more products or services from the database to be purchased on behalf of the user based on the second user input; obtain user profile information associated with the user; identify payment information and shipping information based on the user profile information; and complete, without further user input after identifying the payment information and the shipping information, a purchase transaction of the identified one or more products or services.

CHART OF CLAIMS
[36] The system of claim 35, wherein to recognize the one or more words or phrases from the natural language utterance, the one or more physical processors are further caused to: provide the natural language utterance as an input to a speech recognition engine; and obtain the one or more words or phrases recognized from the natural language utterance as an output of the speech recognition engine.
[37] The system of claim 35, wherein the one or more physical processors are further caused to: obtain seller information describing one or more products or services available from one or more sellers via one or more remote information sources; and store the seller information in the one or more databases.
[38] The system of claim 35, wherein to complete the purchase transaction without further user input after identifying the payment information and the shipping information, the one or more physical processors are further caused to: complete the purchase transaction without receiving confirmation of the payment information or the shipping information by the user.
[39] The method of claim 1, the method further comprising: presenting a prompt that identifies the selected product or service, the cost associated with the purchase of the selected product or service, payment information to pay the associated cost, and shipping information specifying where the selected product or service is to be delivered; and soliciting approval of the identified information as the second user input.
[40] The system of claim 16, wherein the one or more physical processors to are further caused to: present a prompt that identifies the selected product or service, the cost associated with the purchase of the selected product or service, payment information to pay the associated cost, and shipping information specifying where the selected product or service is to be delivered; and solicit approval of the identified information as the second user input.

U.S. Patent No. 11,087,385 (the "'385 patent") claims technology for purchasing products using voice. *See, e.g.,* EX1001, 16:61-65; EX1002, ¶¶31-34. But this technology was known in the prior art. *See* EX1002, ¶¶38-70. This Petition demonstrates that the prior art renders each '385 patent claim obvious. *See also* EX1002, ¶¶1-326.

I. OVERVIEW OF THE '385 PATENT

A. Alleged Invention

The '385 patent purports to "facilitate[e] voice commerce" by processing a user's utterance "to determine a product or service that is to be purchased" and completing a purchase upon "receipt of [a] requested confirmation from the user." EX1001, Abstract, 1:56-65, 2:54-58; EX1002, ¶32. The product or service is identified from the user's utterance using well-known interactive speech technology, e.g., "speech recognition engine(s)" and "natural language processing engine(s)." EX1001, 2:4-7, 10:60-11:10; EX1002, ¶32.

FIGs. 6A-6B, below, show a "voice commerce application" that solicits "user confirmation...with respect to a product purchase," where the application completes "checkout of the product purchase" after the user confirms "by saying 'Yes.'" *Id.*, FIGs. 6A-6B, 20:65-21:24; EX1002, ¶34.

FIG. 6A

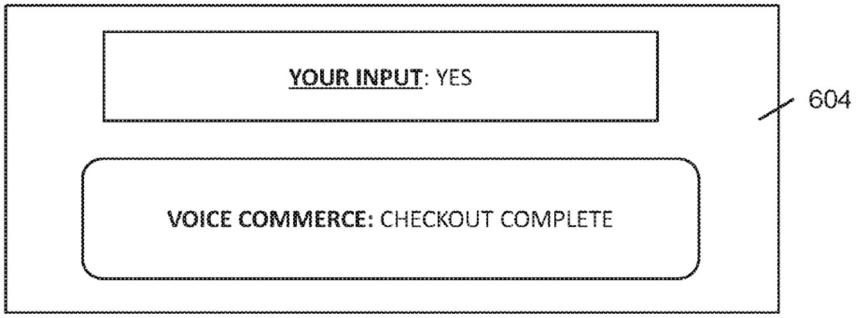


FIG. 6B

B. Priority Date

The '385 patent was filed as Application No. 16/553,553 on August 28, 2019, and claims priority through a chain of U.S. continuations to U.S. Provisional Application No. 62/051,273, filed on September 16, 2014. This Petition treats September 16, 2014 as the priority date for the '385 patent.[1]

[1] Petitioner reserves the right to challenge the '385 patent's priority date in this or other proceedings.

II. IDENTIFICATION OF CHALLENGE

A. Statutory Grounds

Petitioner requests *inter partes* review and cancellation of claims 1-40 (the "challenged claims") based on the following eight § 103 grounds. *See also* Ex1002, ¶¶1-326.

#	Claims	Ground
1	1, 3-8, 10-16, 18-23, 25-38,	Li
2	2, 17	Li, Kennewick
3	9, 24	Li, Chen
4	39, 40	Li, Lee
5	1, 3-11, 14-16, 18-26, 29-38	Chen, Barnes
6	2, 17	Chen, Barnes, Kennewick
7	12-13, 27-28	Chen, Barnes, Li
8	39, 40	Chen, Barnes, Lee

B. Prior Art[2]

1. Li

Li is prior art under §102(a)(1) and (2) because it was filed on April 13, 2012 and published on November 8, 2012, before the priority date of the '385 patent. EX1004; EX1002, ¶52.

[2] Post-AIA 35 U.S.C. § 102 applies to the '385 patent.

Li discloses a "Data Processing System" that implements methods "enabling the execution of [a] request to purchase an object," e.g., a "speech utterance" "describing the object of interest." EX1004, [0003], [0006], [0009], [0089], [0188]; EX1002, ¶¶53-56. Based on the utterance, the system identifies "the most likely object of interest" and "a Retailer offering [the] Object of Interest, in combination with one or more qualifying Offers," and presents the information to the user through a client device. EX1004, [0006], [0092]-[0093], [0197]; EX1002, ¶¶53-56. For example, the user can say "Buy XYZ," "view on the wireless device display a window displaying retailer XYZ offering the XYZ object for a low price," and then "say or text 'Buy'" to "buy the XYZ object without having to select at the retailer any object attributes, enter any offer and/or reward codes, and/or enter any payment account data." EX1004, [0005]; EX1002, ¶54. For example, Li's FIG. 3A, below, illustrates a window displaying purchase details of a requested object, e.g., a "Snow White DVD," and includes a "Buy" button that the user can select via "a mouse click, a key press, a touch, [or] a speech input." EX1004, [0146], [0149], FIG. 3A; EX1002, ¶56.

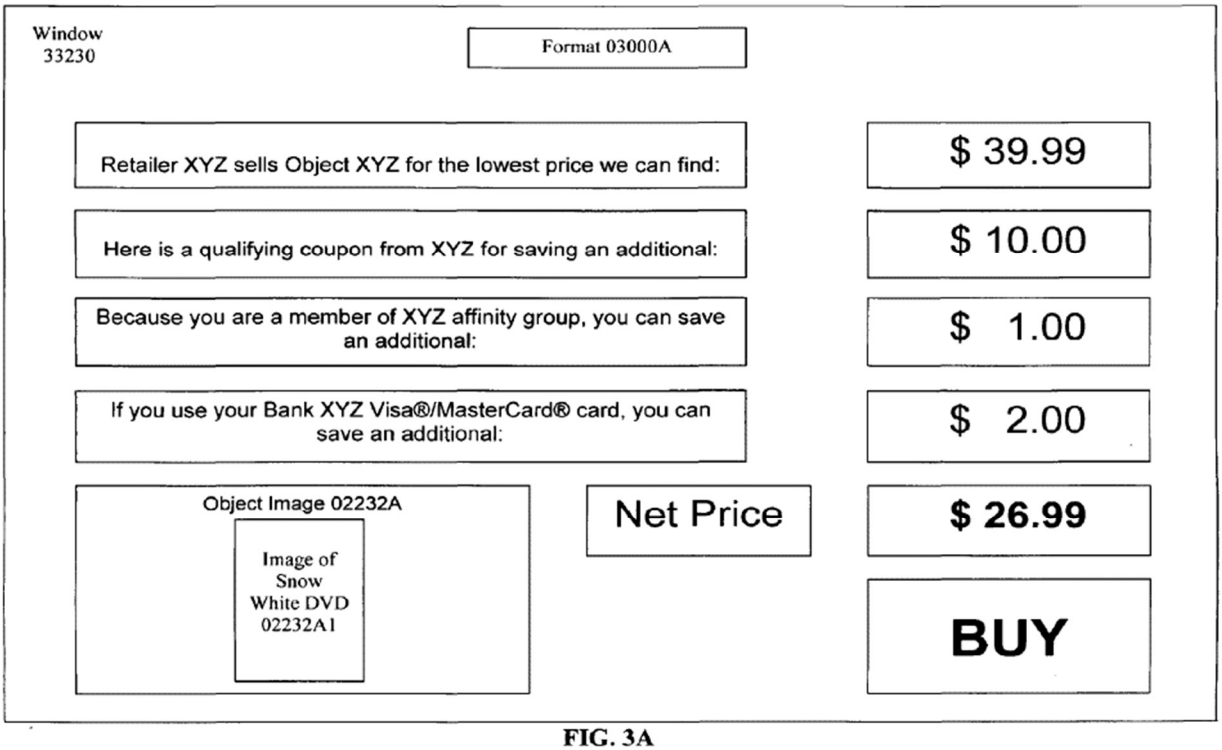


FIG. 3A

2. Chen

Chen is prior art under §102(a)(2) because it was filed on November 18, 2013, before the effective filing date of the '385 patent. EX1005; EX1002, ¶57.

Chen discloses a "hybrid response system ('HRS')" enabling "users to purchase a product or service by providing a voice request." EX1005, Abstract; EX1002, ¶¶58-61. The HRS's "automated response system" receives user "voice input" at a "transcription module," which "generate[s] text" transcribing the voice input used by a "categorization module" to "determine that [the] speech segment is of a particular type," e.g., a "purchase request." EX1005, 8:36-46, 9:42-47, FIG. 2; EX1002, ¶59. The HRS determines "a target product/service based on at least the

purchase request" to return a response. EX1005, Abstract; EX1002, ¶¶58-59. The HRS prompts the user "to confirm the purchase," and then the user, if "satisfied with the details," "speak[s] a command, such as 'buy,'" to complete the purchase using the user's credit card and address information stored in a "user-account." EX1005, 4:35-46, 19:62-67, 20:15-24; EX1002, ¶¶60-61.

Chen's FIG. 7 illustrates an example where the HRS receives "a first speech segment" requesting "Buy the Brand X basketball shoes for me," and responds with "Brand X model 1 basketball shoes are available for $99.99 with free shipping from the Yangtze online store. Speak 'buy' to purchase." EX1005, 21:42-58, 22:16-24, FIG. 7; EX1002, ¶61. The user speaks "buy" to send "a purchase approval request" to the HRS and complete the purchase. *Id.*

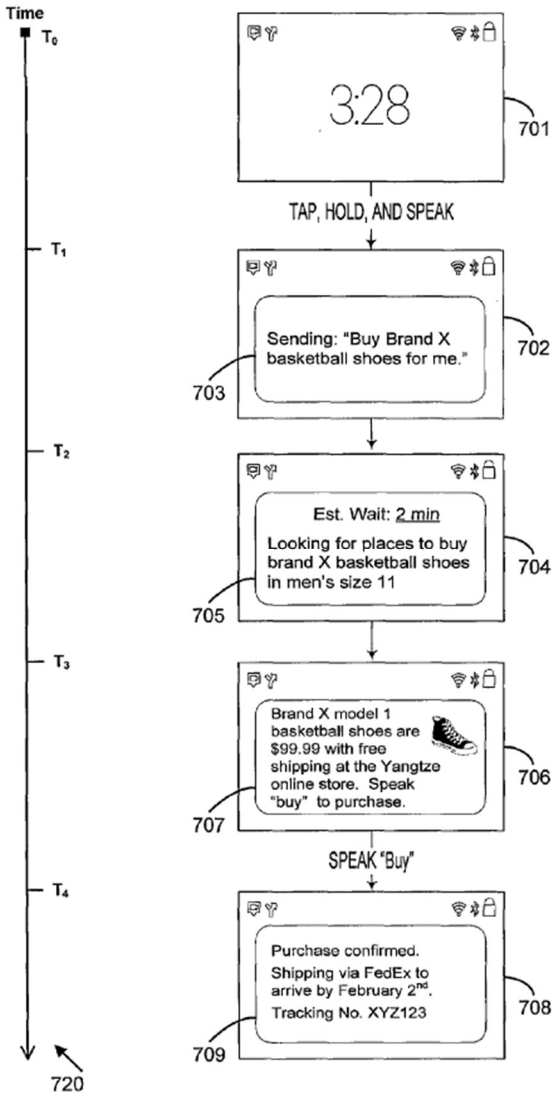


FIG. 7

3. Barnes

Barnes is prior art under §102(a)(1) and (2) because it was filed on December 20, 2011 and published on April 19, 2012, before the effective filing date of the '385 patent. EX1006; EX1002, ¶62.

Barnes discloses processing user voice input for "product identifying information," and performing a "Multi-Vender Search" for "available venders that

can provide the product." EX1006, [0163]-[0164], [0167]-[0169], [0172]-[0174]; EX1002, ¶¶63-64. The system in Barnes "convert[s] the entire voice message to text and pars[es] the text for particular words," e.g., an instruction to "'find lowest price' followed by product identifying information such as manufacturer Calloway®, Big Bertha® driver." EX1006, [0167], [0380]-[0381]; EX1002, ¶63.

To identify the product and vendors "who may offer the product," Barnes "retriev[es] data of venders from" a database and generates a request to each identified vendor. EX1006, [0169]-[0176]; EX1002, ¶64. The vendors then process "their respective requests" by "searching a database for [information] of the identified product." *Id*. The responses are received, sorted, and displayed to the user, who, after "viewing the presented data," "supplies an input," like a voice "command to transmit a request to purchase the product from a particular vender." EX1006, Abstract, [0177]-[0178]; EX1002, ¶64.

4. Kennewick

Kennewick is prior art under §102(a)(1) and (2) because it was filed on July 15, 2003 and published on September 30, 2004, before the effective filing date of the '385 patent. EX1007; EX1002, ¶65.

Kennewick discloses a "speech interface" that processes natural language questions and commands "in a wide range of domains" by making "significant use of context…and user specific profile data." EX1007, Abstract, [0002]; EX1002,

¶¶66-68. A speech recognition engine processes the user's natural language utterance to "recognize words and phrases." EX1007, [0155]; EX1002, ¶66. A parser then determines a context for the utterance based on the recognized words and phrases by "applying prior probabilities or fuzzy possibilities to keyword matching." EX1007, [0156], [0160]-[0161]; EX1002, ¶67.

Kennewick discloses that the speech interface may implement various applications, including voice commerce applications that present "interactive offers and promotions for goods and services" and enable "[r]emote ordering and payment for goods and services." EX1007, [0060]-[0085]; EX1002, ¶68. Kennewick further discloses different contexts or domains corresponding to different product types, including "fast food ordering" and "[t]ravel services." EX1007, [0018], [0068]; EX1002, ¶68.

5. Lee

Lee is prior art under §102(a)(2) because it was filed on filed on February 27, 2014, before the effective filing date of the '385 patent. EX1008; EX1002, ¶69.

Lee discloses a "payment service provider" that facilitates "faster checkout for a user" when purchasing items from "a merchant website." EX1008, Abstract, [0014]; EX1002, ¶70. The payment service provider "populate[s] a one-page checkout page" with the "details of the purchase" that includes item and price information, as well as "the stored name 504...of the user 105, the shipping address

508, [and] the last used payment method 510." EX1008, [0014], [0038], [0044]; EX1002, ¶70. If the user finds that the presented details "are acceptable and correct," they may "select a 'Confirm,' 'Pay,' or other button or link to confirm the order." *Id*.

III. LEVEL OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the art ("POSITA") at the priority date of the '385 patent would have had a Bachelor's degree in computer science, computer engineering, electrical engineering, or a related field in computing technology, and two years of experience with automatic speech recognition and natural language understanding, or equivalent education, research experience, or knowledge. Additional experience can substitute for the level of education, and vice-versa. EX1002, ¶¶4-13, 22-26.

IV. CLAIM CONSTRUCTION

For the purposes of this Petition, Petitioner applies plain-and-ordinary meaning to all terms.[3] EX1002, ¶¶27-30.

[3] Petitioner reserves the right to offer different claim constructions in other forums.

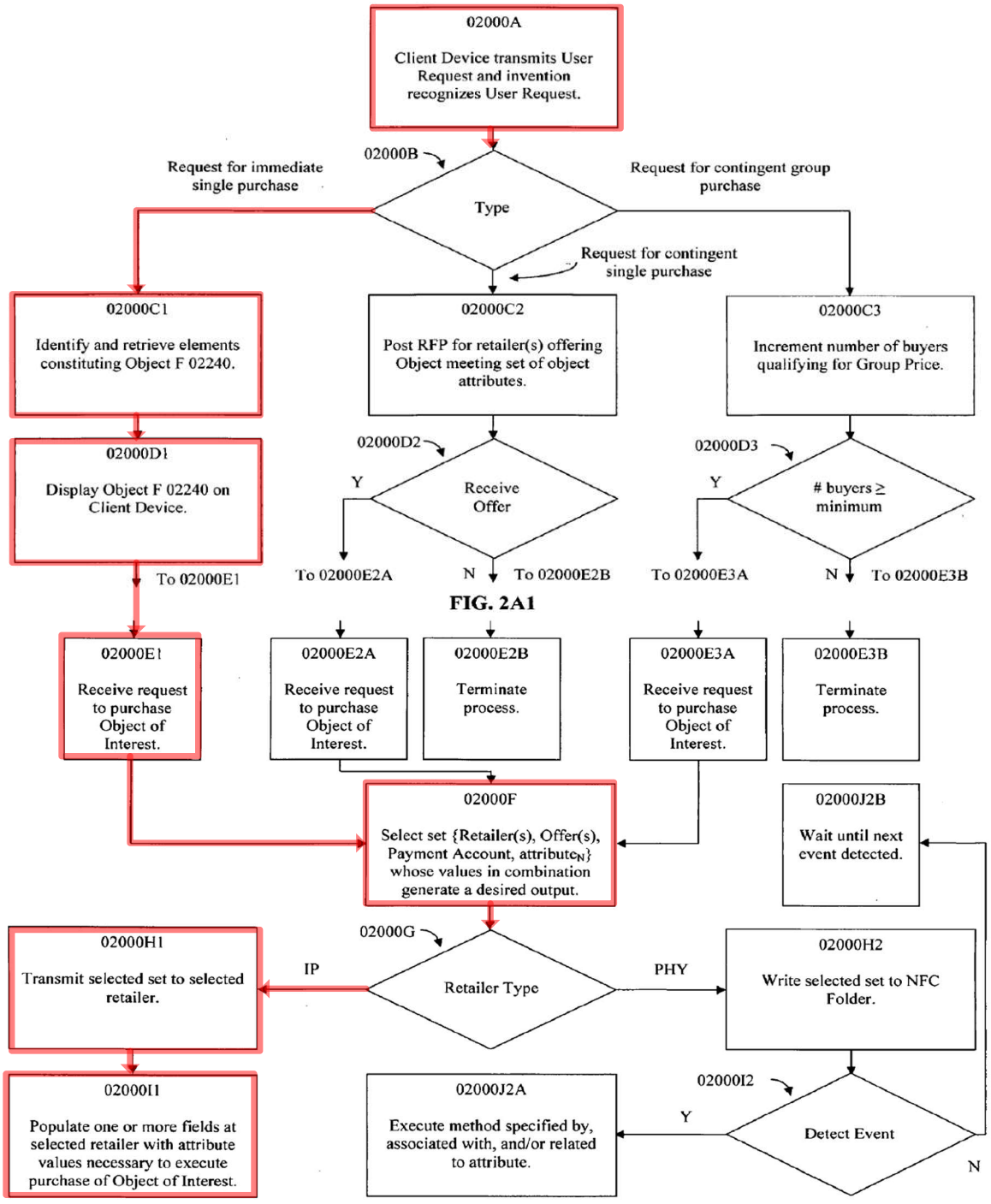
V. GROUND 1: LI

A. Claim 1

[1.pre]

Li discloses a "computer-implemented method" "***for providing voice commerce***" by processing "a speech utterance" "to purchase an object." EX1004, [0009], [0188]; EX1002, ¶¶72-73. For example, the user can say "Buy XYZ," to view "a window displaying retailer XYZ offering the XYZ object," and then say "Buy" to "buy the XYZ object." EX1004, [0005]; EX1002, ¶¶72-73. This process is shown in the flowchart of FIGs. 2A1-2A2 (shown below[4]). A user voice request is processed to select and display information about an "Object of Interest" ("Object F"), and then the purchase is complete in response to a subsequent request "to purchase the Object of Interest." EX1004, [0091].

[4] All annotations and emphases are added unless otherwise noted.



Li's "computer-implemented method" is "***implemented on a computer system***," e.g., a "Data Processing System" such as an "Inter Server," which is a

computer, server, or other "type of device which can process data." EX1004, [0076], [0081], [0119], [0254]; EX1002, ¶¶74-75. The Inter Server includes "a general- or special-purpose Processor 01040" ("***one or more physical processors***"), which are "***programmed" with [computer program] instructions to execute the [method] steps***." EX1004, [0075]-[0078], [0083]; EX1002, ¶¶74-75.

[1.a]

Li's Inter Server ("***computer system***") "receiv[es] from a client device a request" meeting the claimed "***single first user input***." EX1004, [0006]; EX1002, ¶76. The "request" is a "speech utterance" containing "any word string spoken by the user" "related to an Object of Interest," and thus comprises "***a natural language utterance***." EX1004, [0006], [0160], [0254], [0264]; EX1002, ¶76. Li provides examples of natural language "speech utterances," including "Buy XYZ," "Buy and send flowers to Mary this Valentine's Day," and "Buy Starbucks® coffee beans." EX1004, [0005], [0213], [0413]; EX1002, ¶76.

[1.b]

Li's Inter Server ("***computer system***") includes a "Speech Recognition Module" meeting the claimed "***speech recognition engine***." *See* EX1004, [0160], [0317], [0320] (Speech Recognition Module part of Apparatus "located in...Inter Server"); EX1002, ¶¶77-79. The Speech Recognition Module is a "CPP [Computer Program Product]" that processes "speech input" to recognize the words or phrases

in a natural language utterance by using "an acoustic model and a language model" to "generate a set of candidate word strings." EX1004, [0090]-[0091], [0126], [0160], [0310]; EX1002, ¶77. The Inter Server receives the natural language utterance from the client device, and provides it to the "Speech Recognition Module" for recognizing the text of the utterance. *See* EX1004, [0156], [0380]; EX1002, ¶¶77-79. For example, FIG. 17 shows the "Speech Recognition Module 17200" receiving "Speech 11512" to generate a "Hypothesized Word String 17300." *Id.*, FIG. 17.

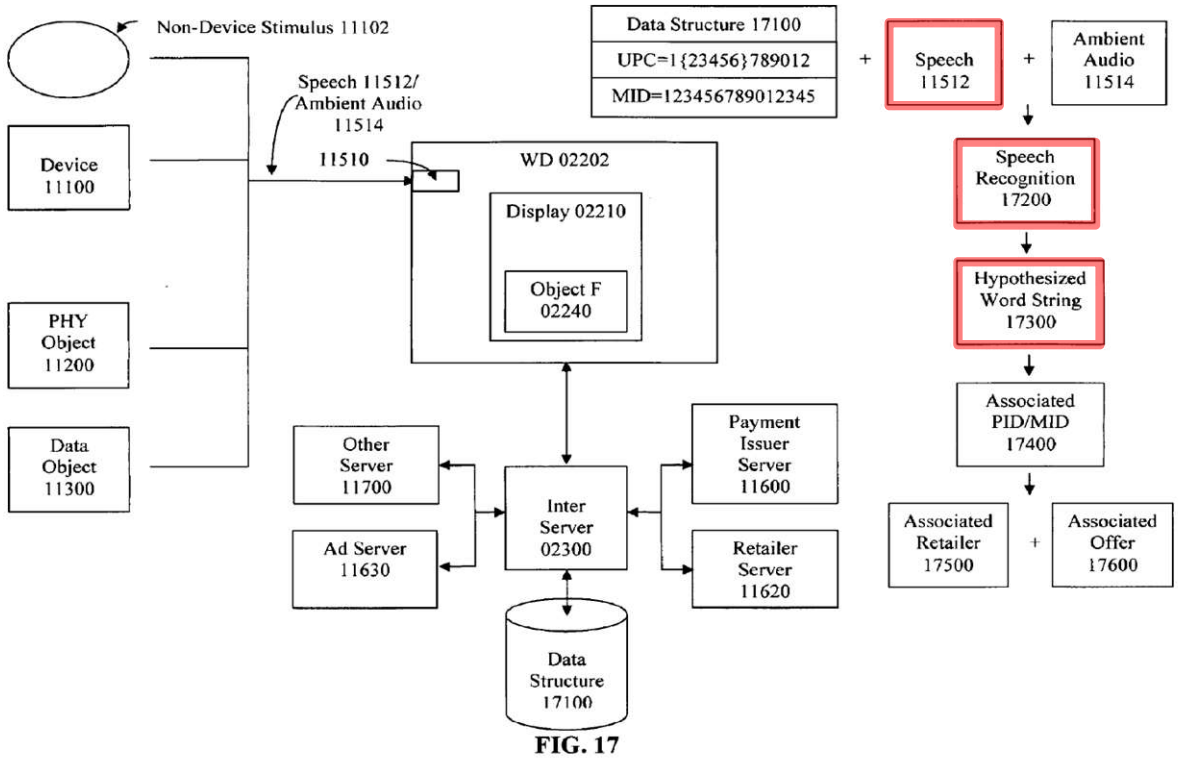


FIG. 17

[1.c]

Li's Inter Server obtains "a set of candidate word strings" or "Hypothesized Word String" corresponding to "***one or more words or phrases recognized from the natural language utterance***," generated and output by the "***speech recognition engine***" (e.g., Speech Recognition Module) using "an acoustic model and/or language model." EX1004, [0091], [0160], [0310], [0317]; EX1002, ¶¶80-81. For example, FIG. 17 above shows the "Speech Recognition Module 17200" generating "a Hypothesized Word String 17300" for use by an "Object ID Engine" to determine an Object ID (e.g., "Product ID" 17400). *See* EX1004, [0317]-[0318], [0527]; EX1002, ¶¶80-81.

[1.d]

Li's Inter Server ("***computer system***") selects from the "candidate word strings" output by the "Speech Recognition Module" ("***speech recognition engine***") a "highest ranking word or word string as the Object of Interest." EX1004, [0161], [0329]-[0337], [0553]; EX1002, ¶82. Based on the selected word string, an "Offer ID Engine" identifies "qualifying offers related to [the] object of interest" by "query[ing] one or more data structures for any data...related to the Object of Interest." EX1004, [0161], [0206], [0240], [0618]; EX1002, ¶82. For example, the Offer ID Engine determines "an identifier associated with the Object of Interest" (shown in FIG. 17 as "Product ID and/or Merchant ID 17400") by searching "a data

structure storing objects and their attributes." EX1004, [0318], [0624]-[0627], FIG. 17; EX1002, ¶¶83-84.

The Offer ID Engine further queries a "Retailer Data structure 33500" to retrieve stored data about the object, its availability, and pricing. EX1004, [0477]-[0478], [0628], FIG. 38A1 (38000A3A, "Query one or more data structures" for Offers); EX1002, ¶85. In addition, the Inter Server maintains a Product/Object database 02320 storing "data related to objects and/or object categories," which a POSITA would have understood includes data "cop[ied]...from [the] Retailer Data Structure[s]" of different retailers, to identify which "retailers offer[] for sale the object and/or object category." EX1004, [0158], [0160], [0478]; EX1002, ¶86. A POSITA would have understood that any of the above-discussed databases and data structures correspond to the claimed "***one or more databases of products or services***." *See, e.g.*, EX1004, [0157]-[0158]; EX1002, ¶87.

Li discloses searching the databases "***based on the one or more words or phrases***," e.g., searching "a data structure storing objects and their attributes" using "candidate word strings" to obtain an Object ID, and searching one or more databases using the Object ID derived from the "word string" to identify the object available at a retailer. *See, e.g.*, EX1004, [0158], [0477]-[0488], [0624]-[0627]; EX1002, ¶88.

[1.e]

Li's Inter Server "quer[ies] one or more data structures" to select "a Retailer offering [the] Object of Interest, in combination with one or more qualifying Offers," which corresponds to a "***product or service from the database to be purchased***," because it indicates a product or service ("Object of Interest") to be purchased from a selected "Retailer offering the Object" based on "an Offer related to the Object." EX1004, [0003], [0160]-[0161], [0168]-[0169], [0197], [0206]; EX1002, ¶89. The Inter Server selects the product or service "***based on the search***" of the one or more databases, e.g., "a data structure storing objects and their attributes" and/or a "Retailer Data structure 33500" identifying objects offered by the retailer. EX1004, [0477]-[0488], [0626], [0628], FIG. 38A1 (38000A3A); EX1002, ¶¶89-90. FIG. 3A shows an example interface displaying the selected "product or service from the database to be purchased" from a selected retailer. EX1001, 24:7-8, EX1004, FIG. 3A; EX1002, ¶89.

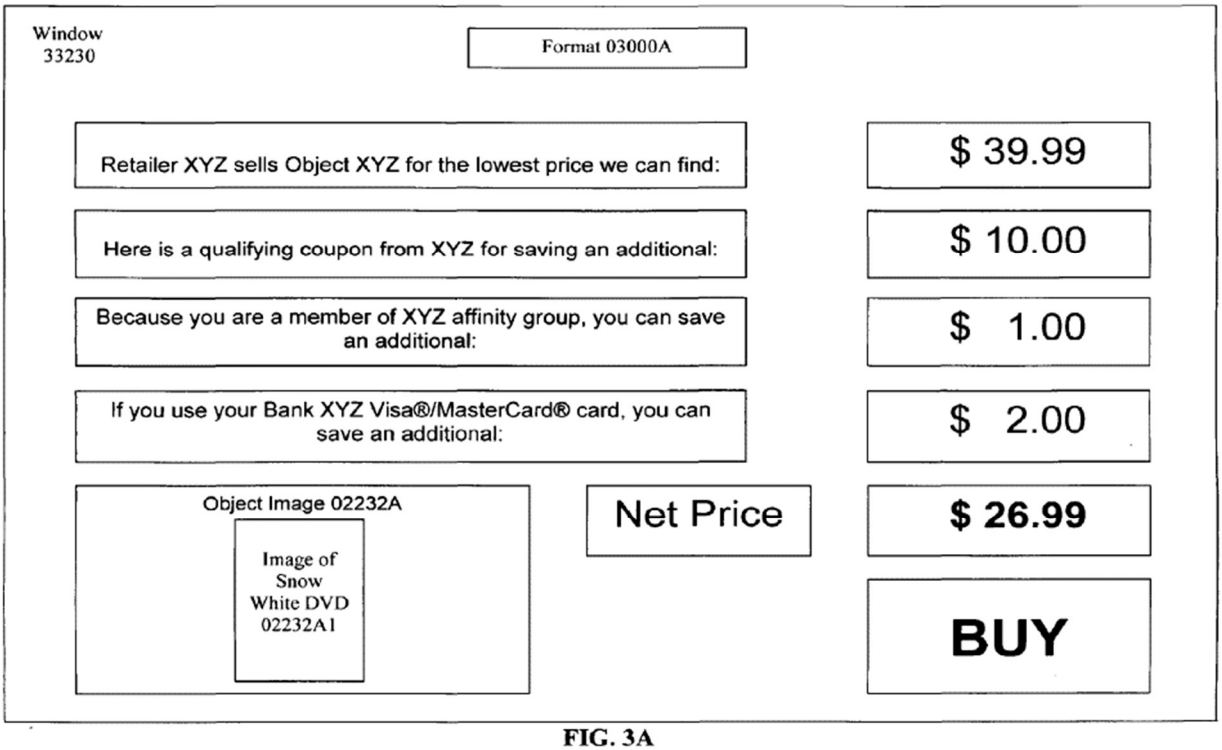


FIG. 3A

Li further discloses selecting the product or service "***without further user input other than the single first user input***." EX1002, ¶¶91-92. For example, after the user says "Buy XYZ," the Inter Server selects "retailer XYZ offering the XYZ object for a low price" without further user input. EX1004, [0005]; EX1002, ¶88. Li's FIGs. 2A1-2A2 also show identifying (02000C1) and displaying (02000D1) information about the selected product and retailer, etc. ("Object F") without any further user input other than the single first user input received at 02000A. EX1004, FIGs. 2A1-2A2; EX1002, ¶91.

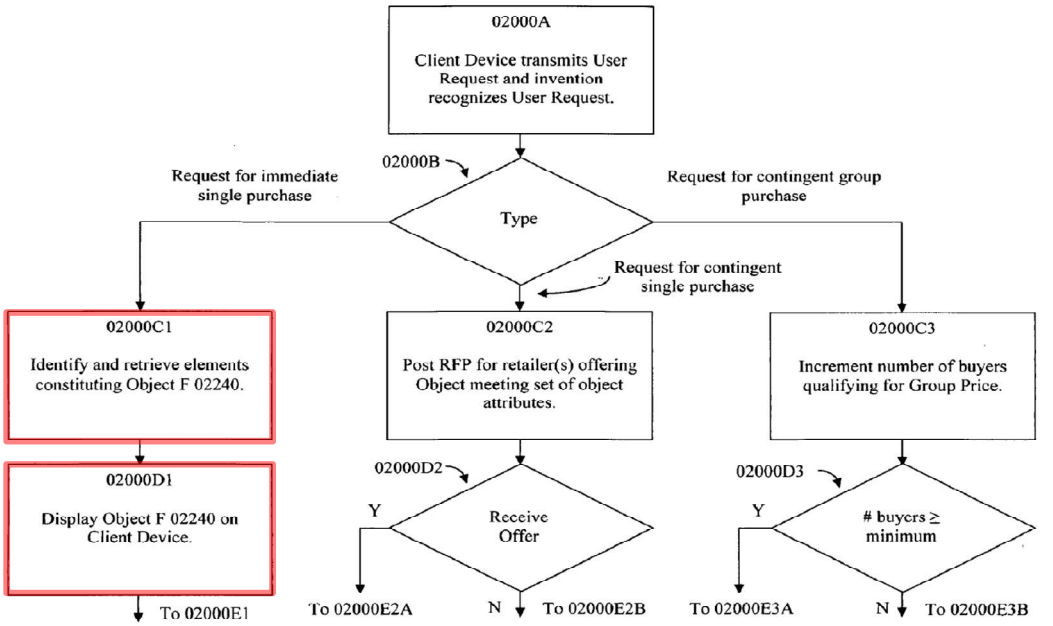


FIG. 2A1

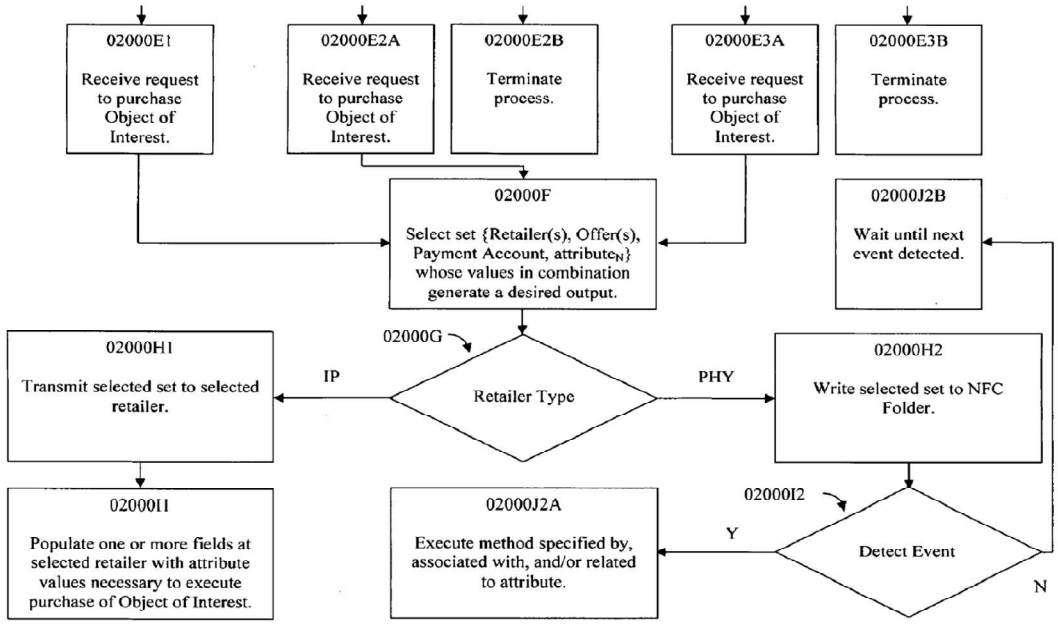


FIG. 2A2

[1.f]

Li discloses displaying an object ("BUY/CALL 02270," shown in FIG. 3A as a "Buy" button) that a user can select via "***a second user input***." EX1004, [0145], [0168]; EX1002, ¶93.

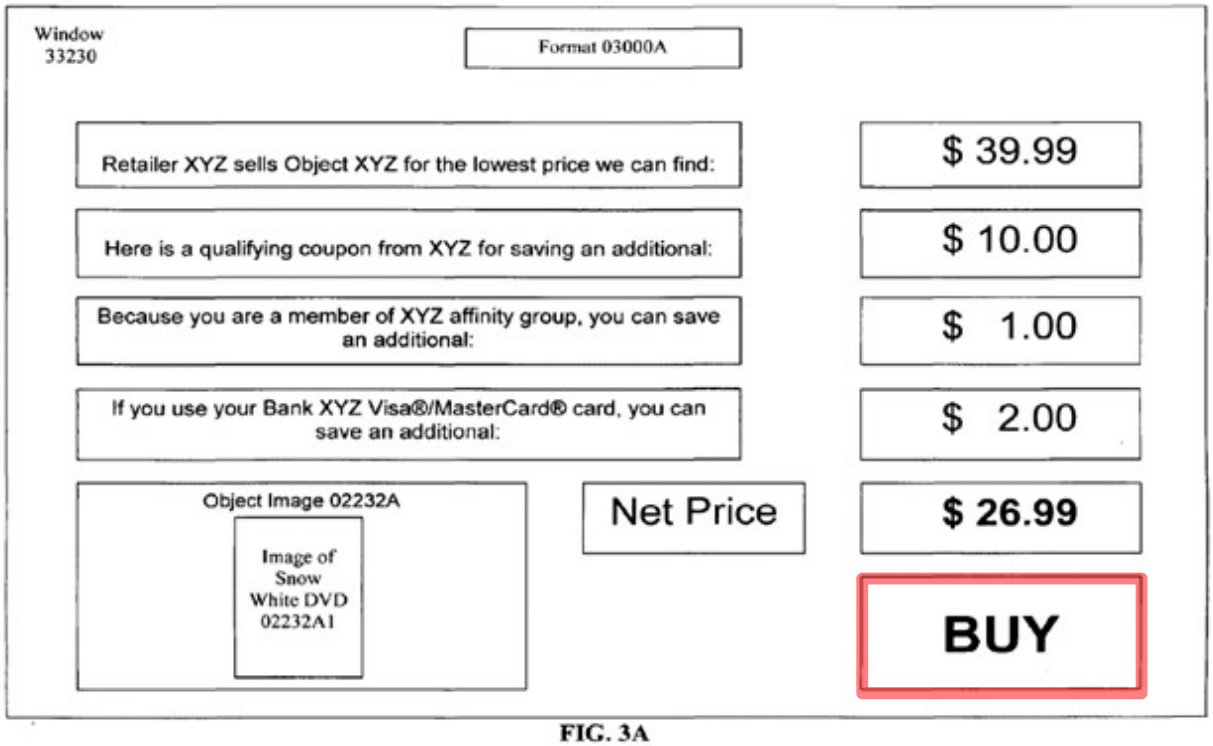
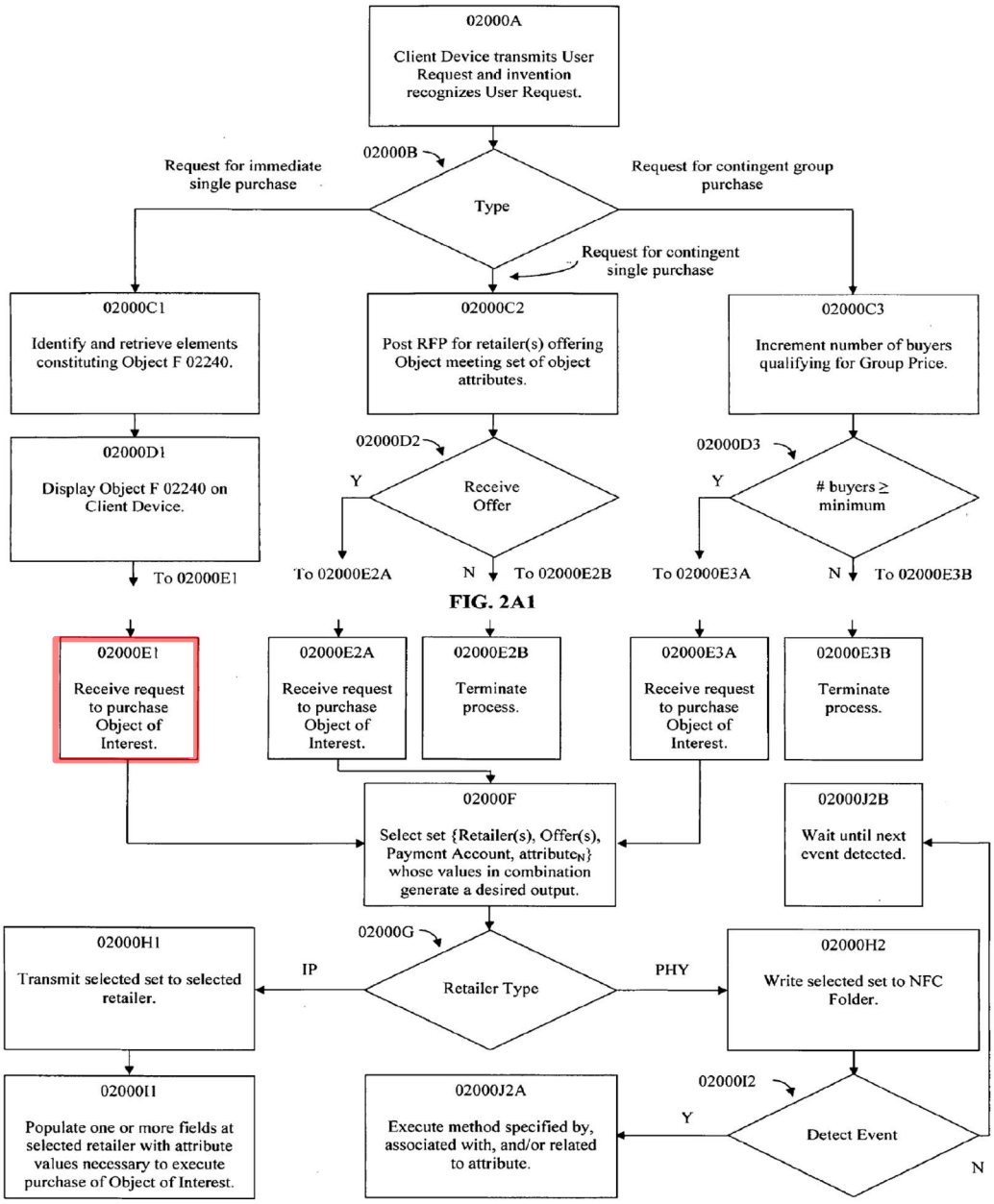


FIG. 3A

The Inter Server ("***computer system***") receives the user's selection of the BUY/CALL object (the "***second user input***") as "a request to purchase the [selected] object of interest from the [selected] Retailer," which indicates the user's confirmation "***to complete a purchase transaction of the selected product or service***." EX1004, [0146], [0149]; *see also id.*, [0005] (user says "Buy" as

confirmation to complete purchase), FIG. 2A1-2A2 (02000E1, "Receive…request to purchase the Object of Interest"); EX1002, ¶¶93-96.



[1.g]

Li's Inter Server ("***computer system***") "***complet[es]...a purchase transaction of the selected product or service***" by transmitting a "selected set of attributes and values" to "populate one or more fields at the selected [] Retailer with the values necessary" to execute the purchase. EX1004, [0108]-[0109], [0149]; EX1002, ¶97. The Inter Server completes the purchase "***without further user input after the receipt of the second user input***," e.g., the user saying or texting "Buy," because the user does not "select at the retailer any object attributes, enter any offer and/or reward codes, and/or enter any payment account data." EX1004, [0005]; EX1002, ¶¶98-99. FIGs. 2A1-2A2 also show, at 02000F-02000I1, Li's system selecting and transmitting the information necessary for the selected retailer to complete the purchase, without further input after the second user input at 02000E1. EX1004, [0101]-[0109]; EX1002, ¶¶98-99.

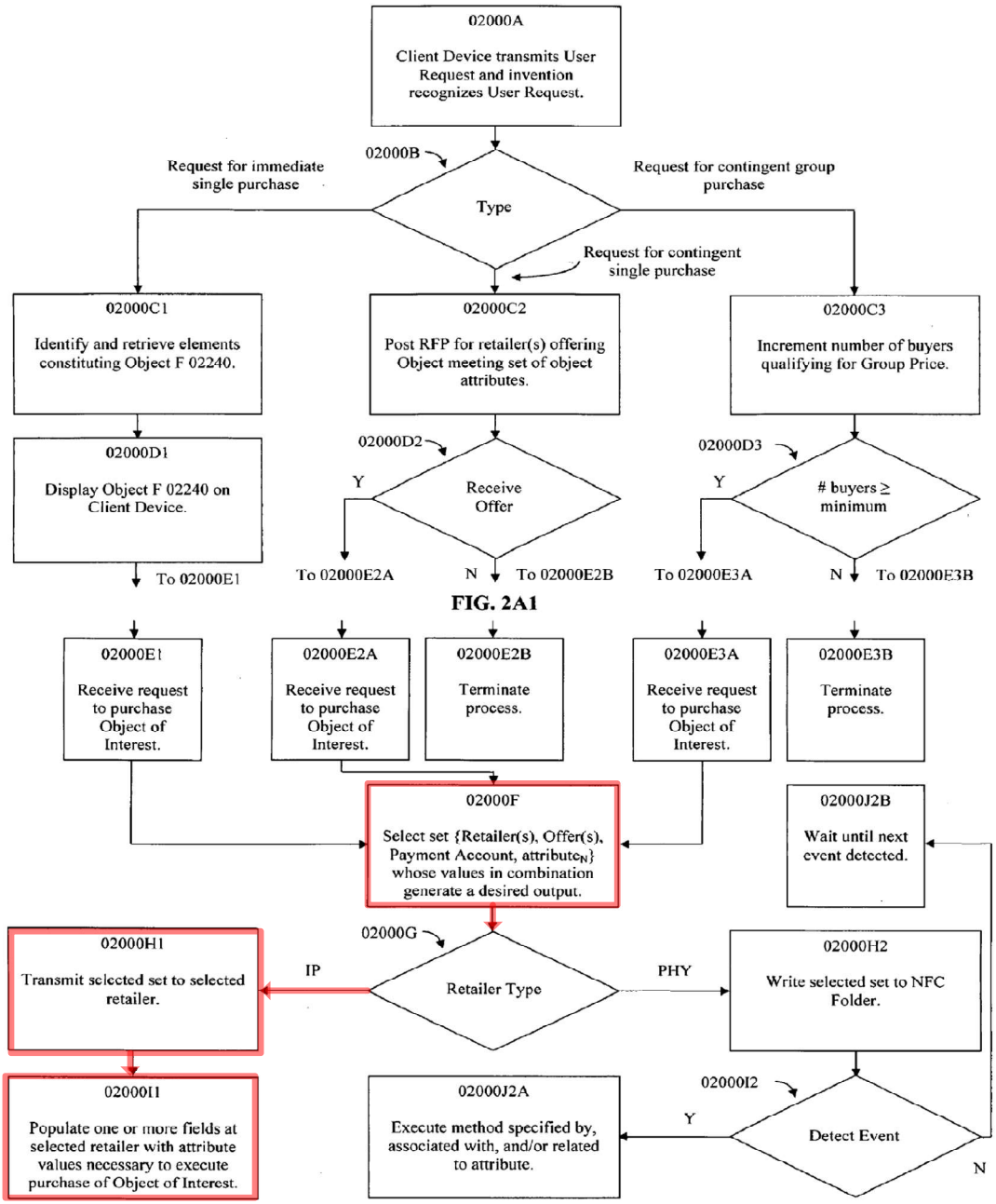


FIG. 2A1

FIG. 2A2

B. Claim 3

Li's Inter Server "***obtain[s]...payment information with which to pay for the selected product or service***" by identifying a "registered payment account," e.g.,

"Payment Account Data" stored in a "Data Structure 2302" maintained by the Inter Server, as shown in FIG. 12 below. EX1004, [0005]-[0006], FIG. 12, claim 1; EX1002, ¶100.

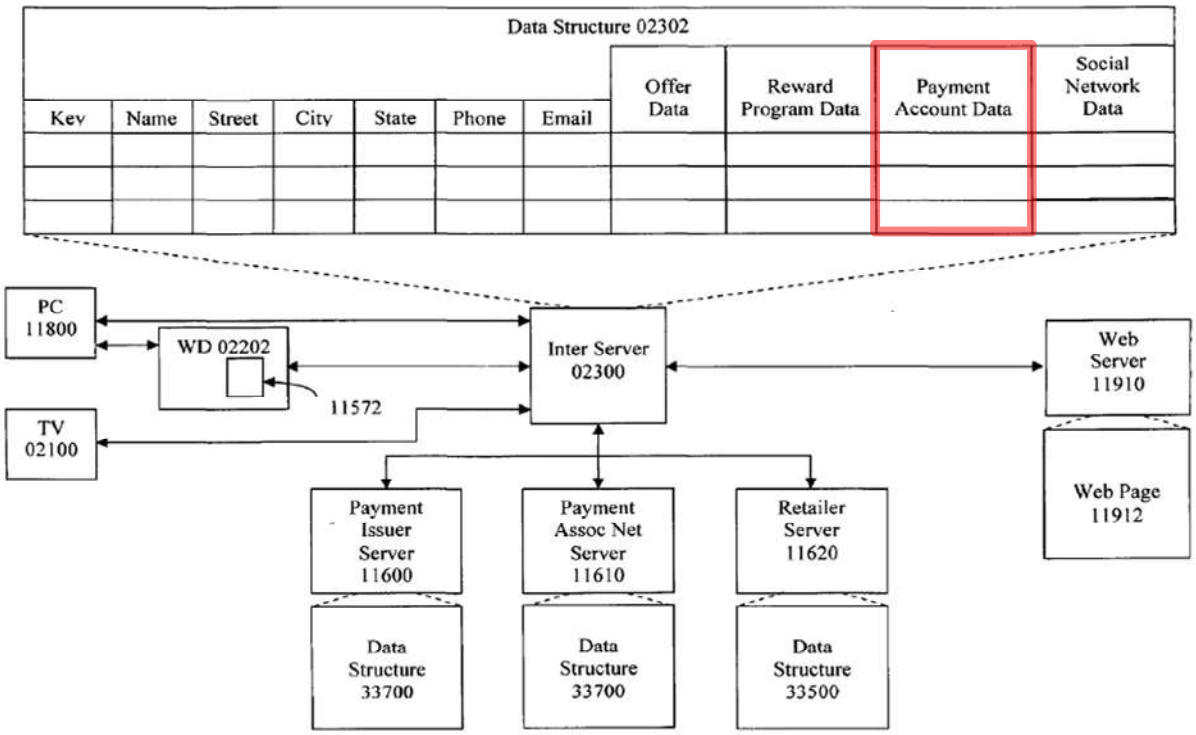


FIG. 12

The Inter Server completes the purchase "***based on the payment information***" by "populat[ing] one or more fields at the selected IP Retailer with the values necessary to execute [the] purchase," including the obtained "Payment Account" information. EX1004, [0005]-[0006], [0108]-[0109], [0114], [0149]; EX1002, ¶¶100-101. The Inter Server completes the purchase "***without receiving confirmation of the payment information by the user***" by completing the purchase

after the user says "Buy," without the user "input[ting] any...payment account data." EX1004, [0004]-[0005]; EX1002, ¶¶102-103; *see also* EX1001, 20:65-21:24; EX1002, ¶102.

C. Claim 4

Li's Inter Server "***obtain[s]...shipping information with which to deliver the selected product or service***," by obtaining "a shipping address provided by the user" "stored in a data structure," to determine a "shipping expense" associated with the purchase. EX1004, [0138], [0292]; EX1002, ¶¶104-105. The shipping information "***specifies a name or address of a recipient to which the selected product or service is to be delivered***," because, as shown in FIG. 12 below, it includes "name, street address, city, state," etc. EX1004, [0138], [0292]; EX1002, ¶¶104-105.

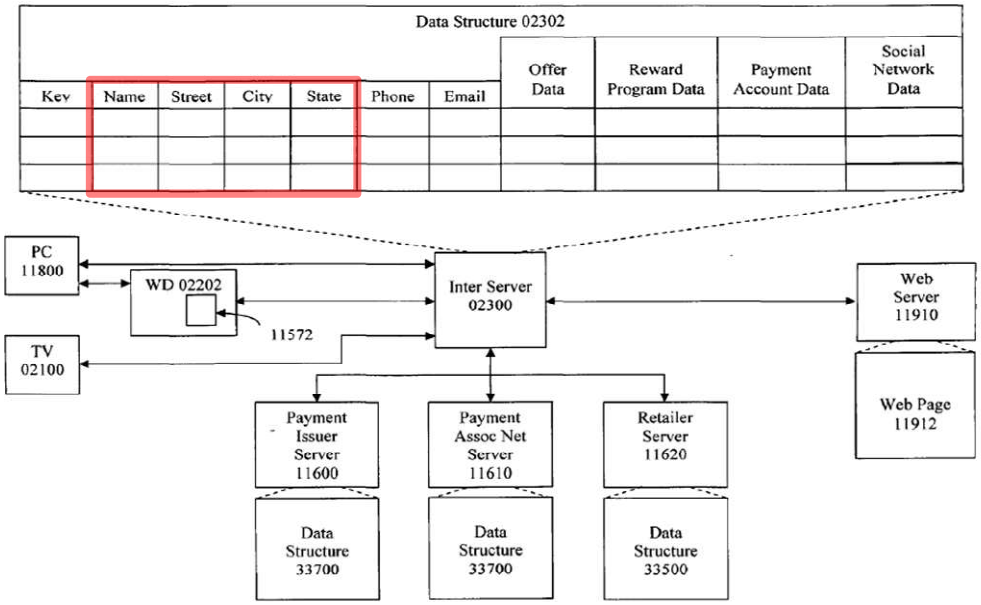


FIG. 12

When the user provides the second user input, e.g., saying "Buy," the Inter Server completes the purchase "***based on the shipping information***" by "populat[ing] one or more fields at the selected IP Retailer with the values necessary to execute [the] purchase," including the shipping information so that the product is "delivered to the address of the user." EX1004, [0109], [0138]; EX1002, ¶106. The Inter Server completes the purchase "***without receiving confirmation of the shipping information by the user***" because it completes the purchase without the user "having to input any further data." EX1004, [0004]-[0005]; *see also id.*, [0168] (describing presenting data relating to the purchase, which need not include shipping information); EX1002, ¶106.

D. Claim 5

[5.pre]-[5.a]

When selecting an offer for the user, Li's Inter Server "receive[s]" or obtains "data associated with one or more retailers offering Product A." EX1004, [0127]; EX1002, ¶¶107-108. This data includes information "identifying each object offered [by a Retailer];...(e) object availability; and/or (f) object pricing," and is therefore "***seller information describing one or more products or services available from one or more sellers***." EX1004, [0477]-[0478]; EX1002, ¶¶108-109. The Inter Server obtains the seller information "***via one or more remote information sources***," including the "Retailer Data Structure" of a "Retailer server." EX1004, [0110],

[0477]-[0478]; *see also id.*, FIG. 12 (illustrating Retailer Data Structure 33500 as remote from Inter Server 02300); EX1002, ¶109.

[5.b]

Li's Inter Server "***stor[es]…the seller information in the one or more databases***" by "copy[ing] [and/or indexing] one or more pages" from a Retailer Data Structure "to enable [its] retrieval." EX1004, [0157], [0478]; EX1002, ¶110. A POSITA would have found it obvious for the Inter Server to store the copied data in the Object/Product database 02320, which maintains "data related to objects" including "retailers offering for sale the object" and is "***one or more databases***" that the Inter Server searches to identify retailers offering the object. EX1004, [0158]; EX1002, ¶110.

E. Claim 6

As discussed above, Li's Retailer Data Structures meet the claimed "***one or more remote information sources***." EX1002, ¶111. These Retailer Data Structures may reside in Retailer Servers, including those hosted for "***third party retailer[s]***" like Starbucks and other various online or physical retailers. *See, e.g.,* EX1004, [0009], [0110], [0354]; EX1002, ¶111.

F. Claim 7

Li's Inter Server selects "***a seller from which to purchase the selected product or service***" by identifying "a Retailer offering the Object of Interest" and

selecting "the set of Retailer A, Offer B, Payment Account C, and value($attribute_N$)," where Retailer A is the selected seller. EX1004, [0101], [0114], [0189]; EX1002, ¶112.

G. Claim 8

Li's Inter Server obtains seller information about "one or more retailers offering Product A," including "the price at which [each retailer] offers Product A." EX1004, [0127], claim 1; EX1002, ¶113. The Inter Server selects a "set of Retailer A, Offer B, Payment Account C, and value($attribute_N$)" by calculating "the price of the Object of Interest offered by a Retailer," ranking the prices, and selecting the Retailer offering with the lowest price. EX1004, [0101]-[0106], [0189], [0191]; EX1002, ¶¶113-114. The seller (e.g., "Retailer A") is thus selected "***based on the price***." EX1002, ¶114.

H. Claim 10

Li discloses selecting an "Advance Negotiated Retailer" "with which an entity negotiated in advance a price" for purchasing an Object of Interest. EX1004, [0174]; EX1002, ¶115. A POSITA would have found it obvious for "***an administrator of the system***" to negotiate with the Advance Negotiated Retailers, or to maintain a list of Advance Negotiated Retailers, e.g., as part of the Object Database, corresponding to a "***predetermined set of [administrator-specified] sellers***" because the administrator, rather than the end user, is typically authorized to enter into

negotiations like these. EX1002, ¶115. Li further discloses "***selecting the seller from the predetermined set of administrator-specified sellers***" by selecting an Advance Negotiated Retailer offering the Object of Interest, if one is available. *See* EX1004, [0174], FIG. 3F (showing selecting an Advance Negotiated Retailer as seller); EX1002, ¶116; *see also* EX1001, 14:5-17; EX1002, ¶116.

I. Claim 11

[11.pre]-[11.a]

These limitations are met for the same reasons as provided for claim 3. *See also* EX1004, [0006], claim 1; EX1002, ¶¶117-118.

[11.b]

As discussed for claim 4, Li's Inter Server "***obtain[s]...shipping information***" by obtaining "a shipping address provided by the user" that includes a name or address for delivery of the selected product or service after purchase. EX1004, [0138]; EX1002, ¶119.

Li further discloses completing "***the purchase transaction...based on the payment information and the shipping information***." The Inter Server completes the purchase by "populat[ing] one or more fields at the selected IP Retailer with the values necessary to execute [the] purchase," including the payment and shipping information so that the product can be purchased and "delivered to the address of the user." EX1004, [0004]-[0005], [0109], [0138], claim 5; EX1002, ¶120.

J. Claim 12

Li's Inter Server "***identif[ies]...an intended recipient of the identified product or service***" by analyzing word strings of a received utterance, such as "Buy and send flowers to Mary this Valentine's Day," to identify "Mary" as "an intended recipient." EX1004, [0213]; EX1002, ¶121. As discussed above, the utterance "Buy and send flowers to Mary this Valentine's Day" may be the "***single first user input***." The Inter Server thus identifies "Mary" as the "intended recipient" based on "***the single first user input***." *See* EX1004, [0213], [0293]; EX1002, ¶121. The Inter Server also "***obtain[s]…an address of the intended recipient***," by accessing the user's "Social Network data," to "identify the name and shipping address of the recipient," e.g., "Mary." EX1004, [0293]; EX1002, ¶122.

K. Claim 13

As discussed above for claim 12, Li's Inter Server accesses the user's "Social Network data" to "identify the name and shipping address of the recipient," e.g., "Mary." EX1004, [0293]; EX1002, ¶123. A POSITA would have understood that a user's social network data containing names and addresses of the user's social network contacts is "***an address book of the user***." EX1002, ¶¶123-124.

L. Claim 14

As discussed for claims 3 and 4, the Inter Server completes the purchase of "the XYZ object" based on obtained payment and shipping information, without the

user "having to input any further data." EX1004, [0004]-[0005]; EX1002, ¶125. Thus, the Inter Server "***complet[es] the purchase transaction without receiving confirmation of the payment information or the shipping information by the user***." EX1002, ¶125.

M. Claim 15

[15.pre]-[15.a]

Li's Inter Server provides information to the client device for displaying a "user-selectable prompt" indicating "retailer XYZ offering the XYZ object" and including a selectable "Buy/Call" object (e.g., "Buy" button) to "enable the purchase of the XYZ object," an example of which is shown in FIG. 3A below. EX1004, [0005], [0145], [0156], FIG. 3A; claim 1; EX1002, ¶¶126-128.

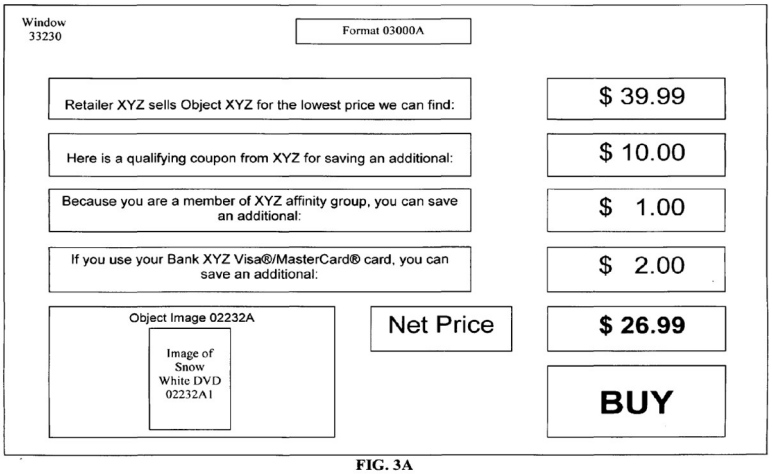


FIG. 3A

The Inter Server provides this information after the user says "Buy XYZ," "***without further user input after the receipt of other than*** *[sic]* ***the single first user***

input." *See* limitation [1.e]; EX1004, [0005]; EX1002, ¶¶127-129. Li provides "***a request for user confirmation to complete the purchase transaction for the selected product or service***" because it requests the user to select the "Buy" button to confirm the purchase for the selected "XYZ object." *See* EX1004, [0145]-[0146]; EX1002, ¶¶127-129; *see also* EX1001, 5:30-48; EX1002, ¶128.

The user's selection of the "Buy" button, including through "speech input" like saying "Buy," is the claimed "***second user input***" "***received responsive to the request***" because the user selects it in response to the Inter Server's prompt. EX1004, [0005], [0145]-[0146]; EX1002, ¶130.

[15.b]

After the user selects the "Buy/Call" object, e.g., "Buy" button ("***second user input***"), the Inter Server "***determin[es]...that the user has confirmed the purchase transaction based on the second user input***" when it receives "a request to purchase the [selected] object of interest from the [selected] Retailer," and completes the purchase transaction "***based on the determination***" by transmitting a "selected set of attributes and values" to the selected retailer for "populat[ing] one or more fields...necessary to execute [the] purchase." EX1004, [0004], [0108]-[0109], [0146], [0149]; *see also* FIGs. 2A2 (02000E1-0200I1); EX1002, ¶131.

N. Claim 16

Li renders claim 16 obvious for similar reasons as claim 1. EX1002, ¶132. The claimed "***system***" is met by Li's Inter Server, which, as discussed above, is a "Data Processing System" implementing a method for providing voice commerce. EX1004, [0110]; EX1002, ¶132. It includes "a general- or special-purpose Processor" "programmed with the instructions to execute" the claimed steps, which meets the "***one or more physical processors programmed with computer program instructions***." *See* EX1004, [0076], [0078], [0081]-[0083], [0087]; EX1002, ¶132. The remaining limitations of claim 16 are substantively identical to those of claim 1. EX1002, ¶132.

O. Claims 18-23, 25-30

Claims 18-23 and 25-30 are substantively identical to claims 3-8 and 10-15, respectively, and are rendered obvious for the same reasons. EX1002, ¶¶133-144.

P. Claim 31

[31.pre]-[31.a]

Limitations [31.pre] and [31.a] are identical to limitations [1.pre] and [1.a], respectively, and are obvious for the same reasons. EX1002, ¶¶145-146.

[31.b]

As discussed for limitation [1.c], Li's Inter Server "***recogniz[es]...one or more words or phrases from the natural language utterance***" because it includes a

speech recognition engine that recognizes "candidate word strings" from the natural language utterance. EX1004, [0160], [0310], [0317]; EX1002, ¶147.

[31.c]

As discussed for limitation [1.d], Li's Inter Server "***search[es]...one or more databases of products or services based on the one or more words or phrases***." EX1002, ¶148. The search is performed "***without using further user input other than the single first user input***" because the Inter Server analyzes the single first user input to recognize "a word string representing...an Object of Interest" and searches the databases for "data related to the identified Object of Interest" without using any further user inputs. EX1004, [0160], [0165], [0213], [0252], [0264]; EX1002, ¶148. For example, Li discloses obtaining information of "retailer XYZ offering the XYZ object" by searching one or more databases based on the single first user input "Buy XYZ," without using further user input. *See* EX1004, [0005]; EX1002, ¶¶148-149.

[31.d]

Li's Inter Server ("***computer system***") transmits, to a client device, data obtained from the search, including information about the "Object of Interest," the "Retailer offering the Object of Interest," the "net price," etc., an example of which is shown in FIG. 3A below. *See, e.g.*, EX1004, [0006], [0093], [0126]-[0145], [0160]-[0161], [0169], FIG. 3A; EX1002, ¶150.

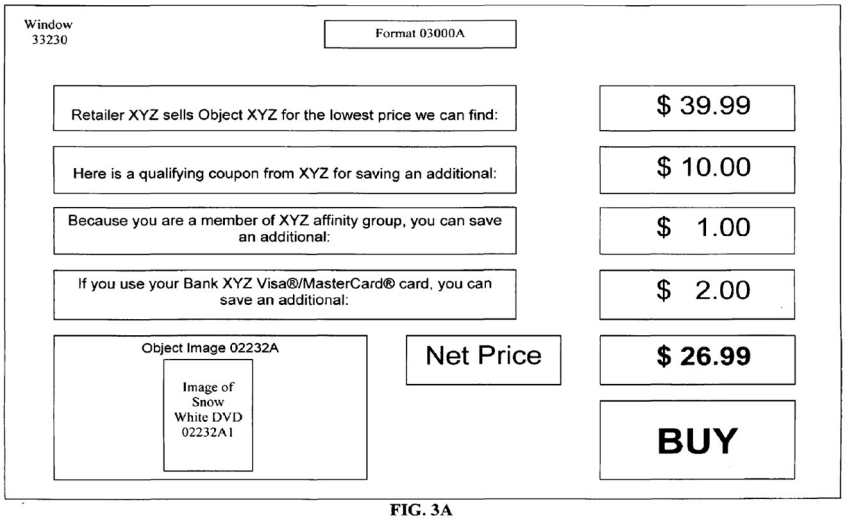


FIG. 3A

This information meets the claimed "***set of search results to be presented to [the] user based on the search***" that "***indicat[e] one or more products or services from the database available for purchase***," e.g., "Object XYZ" available for purchase from "Retailer XYZ." EX1002, ¶150.

In addition, the presented set of search results may include multiple search results, e.g., "an Object of Interest offered by a plurality of Retailers," "Equivalent Objects of Interest," and/or "a plurality of Objects of Interest," and example of which is shown in FIG. 3E below. EX1004, [0173], [0175], [0185], FIGs. 3E-3H; EX1002, ¶151.

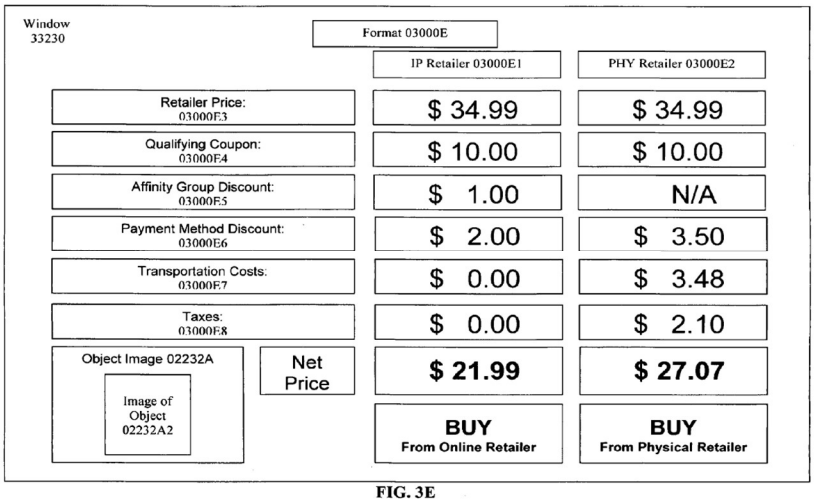


FIG. 3E

[31.e]

As discussed for limitation [1.f], Li's Inter Server receives "***a second user input***" when the user selects the "Buy/Call" object, e.g., "Buy" button. *See* EX1004, [0145]-[0149]; EX1002, ¶152. The user saying "Buy" to "buy the XYZ object" is "***a selection from the set of search results...identifying one or more products or services from the database to be purchased on behalf of the user***" because it is the user's selection of the presented offer to buy "XYZ object" from "retailer XYZ." EX1004, [0004]-[0005]; EX1002, ¶¶152-153.

The second user input may also be a "***selection from***" a set of multiple search results. EX1002, ¶154. For example, the user provides the second user input to select from the set of multiple displayed results, e.g., by selecting a "Buy/Call" object corresponding to a specific result. EX1004, [0173], [0175], [0185], FIGs. 3E-3F (illustrating respective selectable "Buy" buttons for each presented result); *see*

also id., [0213] (analyzing an utterance to identify a "word string representing a Command," e.g., "buy," and "an object of the Command"); EX1002, ¶154.

[31.f]

Li's Inter Server obtains "***user profile information associated with the user***" from a "Data Structure 02302," as shown in Figure 12 below, storing user "Personal Data" "to execute any [of the] methods described." *See* EX1004, [0138], [0292]-[0295], [0695], FIG. 12; EX1002, ¶155.

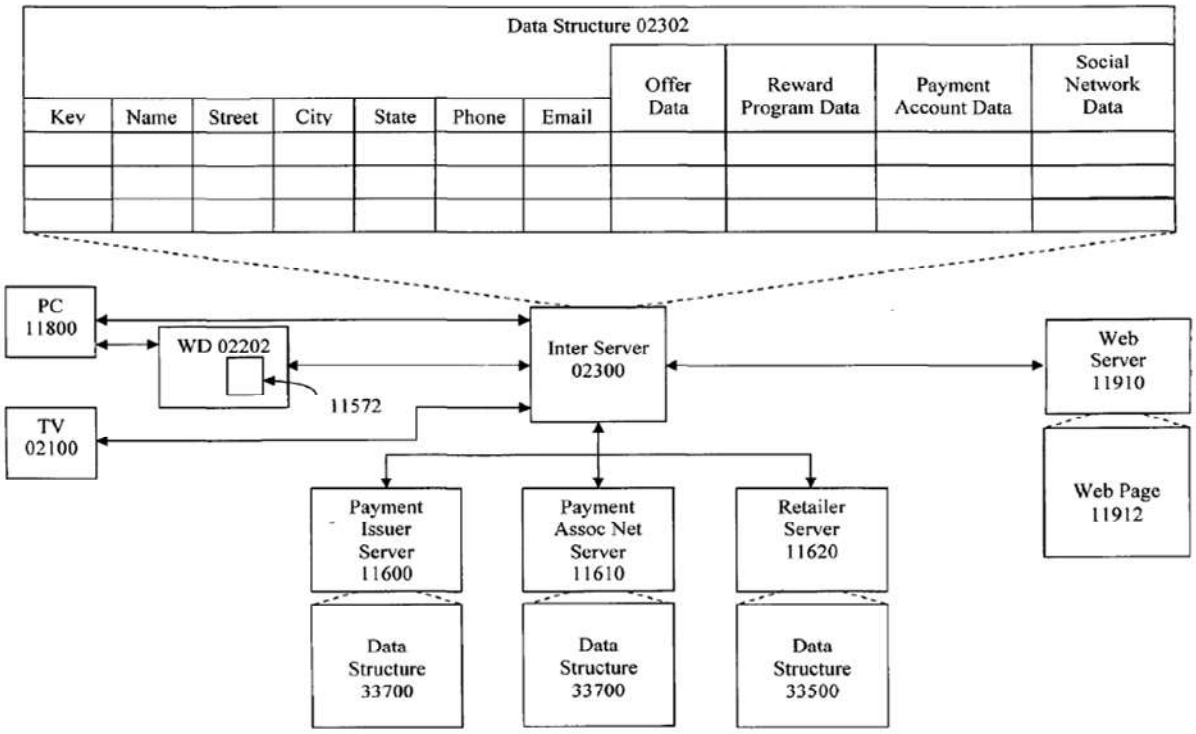


FIG. 12

[31.g]

As discussed for claims 3 and 4, Li's Inter Server obtains payment and shipping information. EX1004, [0006], [0138]; EX1002, ¶156. The payment and shipping information are identified "***based on the user profile information***" stored in the Data Structure 02302, shown in FIG. 12 below. *See* EX1004, [0292]; EX1002, ¶156.

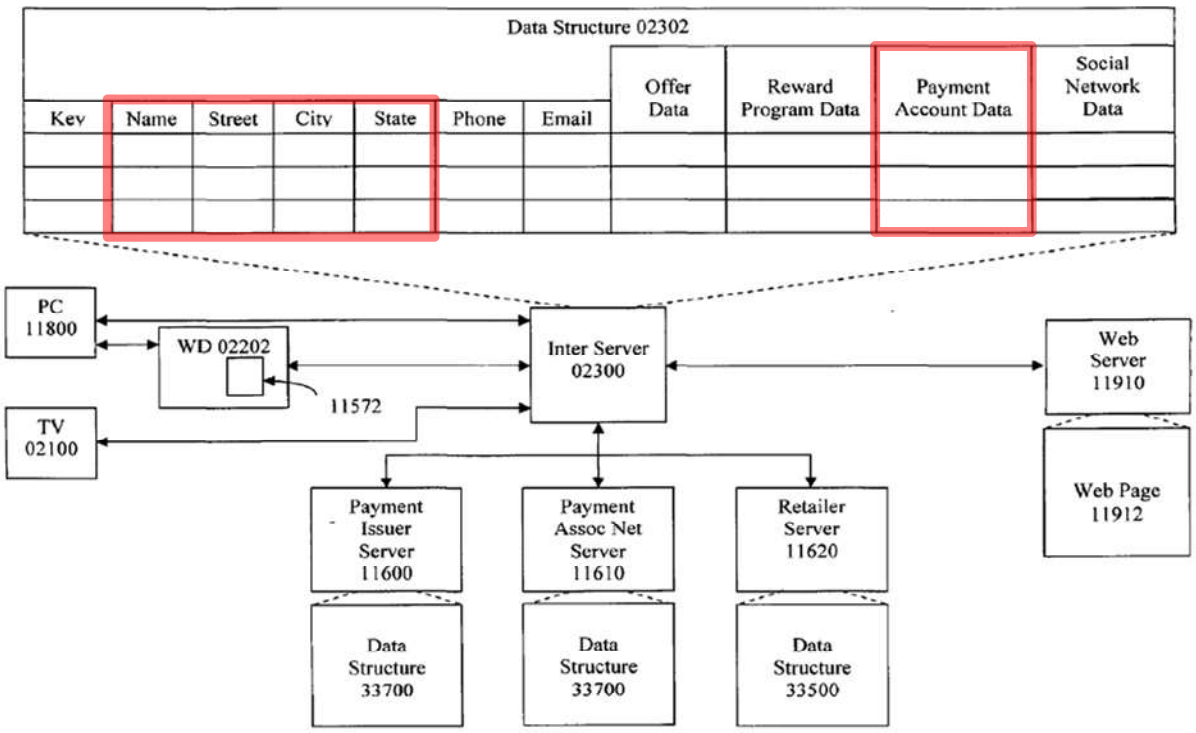


FIG. 12

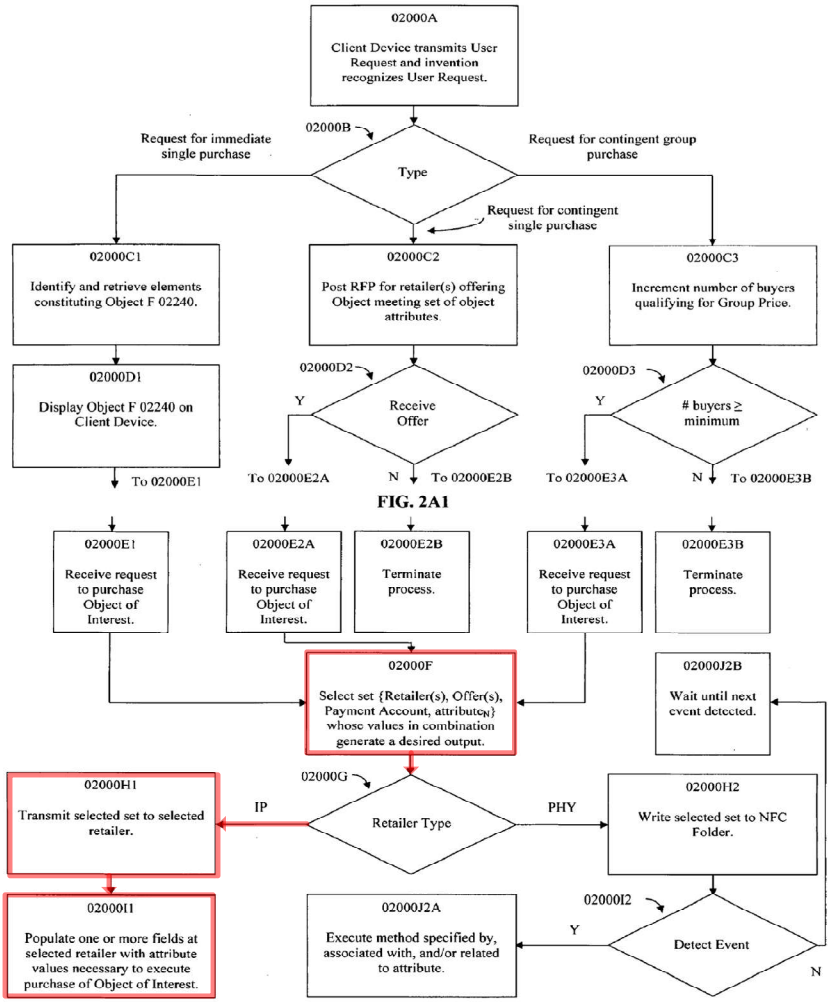
[31.h]

After the user provides "the second user input" as discussed for limitation [31.e], the Inter Server "***complet[es]...a purchase transaction***" of the identified "***one***

or more products or services" by transmitting the "set of attributes and values" associated with the selected product to "populate one or more fields at the selected [] Retailer," which as discussed for claims 3 and 4, includes the identified payment information and shipping information. EX1004, [0108]-[0109], [0149]; EX1002, ¶157. Because the user does not "select at the retailer any object attributes, enter any offer and/or reward codes, and/or enter any payment account data," a POSITA would have understood that the purchase is completed "***without further user input after identifying the payment information and the shipping information***." EX1004, [0005]; EX1002, ¶158.

Furthermore, a POSITA would have found it obvious for Li's Inter Server to identify the payment and shipping information after receiving the second user input. EX1002, ¶159. FIG. 2A2 shows at 02000F, for example, "[s]elect[ing] set {Retailer(s), Offer(s), Payment Account, $attribute_N$}," which includes identifying the payment information and shipping information, after receiving the user's "request to purchase Object of Interest." EX1004, FIG. 2A2; EX1002, ¶159. This purchase is completed without further user input after identifying the payment and shipping information. EX1002, ¶¶159-160. And when there are multiple search results corresponding to different sets of attributes (e.g., "Retailer A, Offer B, [and] Payment Account C"), a POSITA would have understood that the Inter Server

would, after receiving the "second user input," identify and transmit the payment and shipping information as part of the attributes for the specific selected result to the selected retailer to complete the purchase. EX1004, [0101], [0108]-[0109], [0173]-[0175], [0669]-[0670], FIGs. 3E-3H; EX1002, ¶¶159-160. For example, FIGs. 2A1-2A2 show the Inter Server at 02000F "[s]elect[ing] set {Retailer(s), Offer(s), Payment Account, attribute$_N$}," which includes identifying payment information, after receiving the user's "request to purchase Object of Interest."



Q. Claim 32

The limitations of claim 32 are substantively identical to limitations [1.b] and [1.c] and are obvious for the same reasons. EX1002, ¶¶161-163.

R. Claim 33

The limitations of claim 33 are substantively identical to limitations [5.a] and [5.b] and are obvious for the same reasons. EX1002, ¶¶164-166.

S. Claim 34

The limitations of claim 34 are substantively identical to those of claim 14 and are obvious for the same reasons. EX1002, ¶167.

T. Claim 35

Li renders claim 35 obvious for similar reasons as claims 16 and 31. EX1002, ¶¶168.

U. Claims 36-38

Claims 36-38 are substantively identical to claims 32-34, respectively, and are obvious for the same reasons. EX1002, ¶¶169-171.

VI. GROUND 2: LI AND KENNEWICK

A. Claim 2

Li in combination with Kennewick renders claim 2 obvious. EX1002, ¶¶172-180. Li's Inter Server ("***computer system***") recognizes the words or phrases of the user's request and "appl[ies] predefined rules to classify the User Request."

EX1004, [0091]; EX1002, ¶172. By analyzing a recognized "word string representing a Command...or other action related to the Object of Interest," such as "get," "buy," "send," etc., the Inter Server determines "***a context***" for the user's request based on the recognized words or phrases. EX1004, [0213]; EX1002, ¶172; *see* EX1001, 12:50-57; EX1002, ¶172. This is consistent with the '385 patent's disclosure of context comprising an indication of a command or action that the user would like to perform. *See* EX1001, 12:50-57 ("a user input related to 'lawnmower'" may have a context "indicating that the user intends to *buy* a lawnmower," emphasis added); EX1002, ¶172.

Li further discloses that the "***product or service is selected based at least on the determined context***" because the Inter Server selects the product or service based on the "determined context." *See* EX1004, FIGs. 2A1-2A2 (illustrating different operations to select a product/service for different User Request categorizations); EX1002, ¶173. For example, if the determined context is "immediate single purchase," the Inter Server "identif[ies] and retrieve[s] [a] set of elements" for purchasing an identified Object of Interest. EX1004, [0092], [0101], FIGs. 2A1-2A2; EX1002, ¶173. On the other hand, for a different "contingent single purchase" context, the Inter Server "post[s]...a request for proposal (RFP)," and waits for a "Qualifying Offer." EX1004, [0095]-[0096]; EX1002, ¶173.

To the extent Li does not explicitly disclose "***determining...a context***" as claimed, the combination with Kennewick renders it obvious. EX1002, ¶¶174-190. Kennewick discloses determining an utterance's "context or domain" based on the recognized words or phrases. EX1007, [0032], [0160]; EX1002, ¶174. Kennewick's system examines "tokens" that correspond to the recognized words or phrases of the utterance and then "apply[] prior probabilities or fuzzy possibilities to keyword matching, user profile 110, dialog history, and context stack contents." EX1007, [0032], [0160]; EX1002, ¶174. The determined context "determine[s] the domain" of the utterance and identifies the type of command or action to be performed. EX1007, [0160], *see also id.*, [0018] (describing different domains including "query and response," "control," etc.); EX1002, ¶174.

In the combined system, it would have been obvious to apply Kennewick's teaching of "***determining…a context***" by examining the recognized words or phrases ("tokens") and "applying prior probabilities or fuzzy possibilities to keyword matching, user profile 110, dialog history, and context stack contents" to improve and enhance Li's teaching of classifying requests based on predefined words and rules. EX1007, [0160]; EX1004, [0091]; EX1002, ¶175. A POSITA would have understood that using "probabilistic and fuzzy reasoning" and accounting for "previous questions, knowledge of the domain, or the user's history"

as taught by Kennewick would make context determination more accurate and "robust[] to partial failure." EX1007, [0007], [0011]; EX1002, ¶175. In the combined system, once the context of the user's request is determined as taught by Kennewick, the system may select the product or service based on the determined context of the request as taught by Li. EX1002, ¶175.

Furthermore, given Kennewick's disclosure of domains for different types of products/services (e.g., fast food, travel, etc.), a POSITA would have found it obvious to incorporate Kennewick's teachings of determining context to determine an Object classification as taught by Li. *See, e.g.*, EX1007, [0018], [0066]-[0068]; EX1002, ¶176. Doing so would improve Li's ability to "reduce the search space of potential" retailers from which to purchase a requested product/service, "which can increase the accuracy and/or reduce the time to identify an objective." EX1004, [0224], [0354]-[0355]; EX1002, ¶176.

A POSITA would have been motivated to combine Li and Kennewick. EX1002, ¶¶177-180. The references are analogous, both relating to speech-based interfaces allowing users to purchase products using natural language utterances. Both also disclose classifying a user utterance, and performing different operations depending on the classification. *See* EX1004, [0091]-[0114], [0213]; EX1007, [0017]-[0018], [0160]; EX1002, ¶¶177-178. Kennewick discloses additional

techniques for classifying received user requests, by "applying prior probabilities or fuzzy possibilities to keyword matching, user profile 110, dialog history, and context stack contents," to enable more robust context determination and create a more natural response query and environment. EX1007, [0011]; EX1002, ¶¶177-178.

A POSITA would therefore have been motivated to modify Li's classification process to utilize "prior probabilities or fuzzy possibilities [applied] to keyword matching" and/or other information such as user profiles, dialog history, etc. as taught by Kennewick, to create a more robust speech system able to respond to different types of requests with different domain-specific behaviors. EX1007, Abstract; EX1002, ¶¶178-179; *see also* EX1004, [0212]-[0213] (describing a variety of different types of queries and commands "related to [an] Object of Interest"). Doing so would involve a simple substitution of one known technique (classification using "predefined rules") for another (classification using "prior probabilities or fuzzy possibilities") to achieve the predictable result of a speech system that determines context for user requests in a manner that is more "robust[] to partial failure," and a POSITA would have had a reasonable expectation for its success. *See* EX1007, [0011]; EX1002, ¶180.

B. Claim 17

Claim 17 is substantively identical to claim 2 and is obvious for the same reasons. EX1002, ¶181.

VII. GROUND 3: LI AND CHEN

A. Claim 9

Li in combination with Chen renders claim 9 obvious. EX1002, ¶¶182-186. As discussed for limitation [31.f], Li's Inter Server "***obtain[s]…user profile information***." *See* EX1004, [0138], [0292]; EX1002, ¶182. To the extent Li does not explicitly disclose the user profile information indicating "***a predetermined set of sellers associated with the user***," the combination with Chen renders this obvious. EX1002, ¶¶183-184. Chen discloses a system that determines a target product/service based on a user voice request by obtaining "user-account information" ("***user profile information***"). EX1005, Abstract, 22:8-15; EX1002, ¶¶183-184. This "user-account information" identifies "predetermined user preferences" such as the user's "preferred retailers" and "specified stores or service providers," which are "***a predetermined set of sellers associated with the user***." EX1005, Abstract, 4:10-13, 19:24-32, 22:8-15; EX1002, ¶¶183-184. Chen's system selects the seller from the set by "selecting the target product or service based on" the user's "specified stores or service providers...among other possibilities." EX1005, 19:24-32; EX1002, ¶184.

A POSITA would have found it obvious to modify Li's Inter Server to account for user seller preferences as taught by Chen when selecting a "set of Retailer A, Offer B, [and] Payment Account C." EX1002, ¶¶185-186. Li recognizes that users

may prefer "finding the retailer offering the [product/service] for the lowest price," and teaches selecting a seller/retailer based on price. EX1004, [0003], [0189]; EX1002, ¶¶185-186. Chen further recognizes that in addition to selecting a seller based on price, a user may, "among other possibilities," prefer a specific seller "even if [its] price is not the lowest." *See* EX1005, 19:24-42; EX1002, ¶186. A POSITA would have been motivated, based on the teaching of Chen, to modify Li's seller selection process to account for "other possibilities" such as "***a predetermined set***" of "specified stores or service providers" preferred by the user, to enable Li's system to provide the user with options more likely to be of interest and which align with the user's preferences. *See* EX1005, 19:24-32; EX1002, ¶¶185-186. A POSITA would have had a reasonable expectation of success because the combination is a simple substitution of one known technique (selecting a seller by lowest price) for another (selecting a seller by other criteria such as preferred seller) to yield predictable results. EX1002, ¶186. The POSITA further would have found the modification obvious to try as a way to provide users with more relevant search results based on their individual preferences. EX1002, ¶186.

B. Claim 24

Claim 24 is substantively identical to claim 9 and is obvious for the same reasons. EX1002, ¶187.

VIII. GROUND 4: LI AND LEE

A. Claim 39

[39.pre]-[39.a]

Li in combination with Lee renders this limitation obvious. EX1002, ¶¶188-189. Li's Inter Server causes a client device to present a prompt identifying the "Object of Interest" ("***the selected product or service***"), a "net price" identifying "***the cost associated with the purchase of the selected product or service***," a "Payment Account" identifying "***payment information to pay the associated cost***," and "shipping expense" corresponding to "***shipping information***." EX1004, [0004], [0138], [0168], [0173], *see also* FIGs. 3A, 3E, claim 1 ("user-selectable prompt"); EX1002, ¶189.

To the extent Li does not explicitly disclose the presented prompt identifying "***shipping information specifying where the selected product or service is to be delivered***," the combination with Lee renders this obvious. EX1002, ¶190. Lee describes e-commerce systems that, like Li, present the user with a "***prompt***" (e.g., a "one-page checkout page," an example of which is shown in FIG. 5 below) containing the "details of [a] purchase," including payment information corresponding to a "last used payment method," and a "shipping address" "***specifying where the selected product or service is to be delivered***." EX1008, Abstract, [0038], [0044], FIG. 5; EX1002, ¶190.

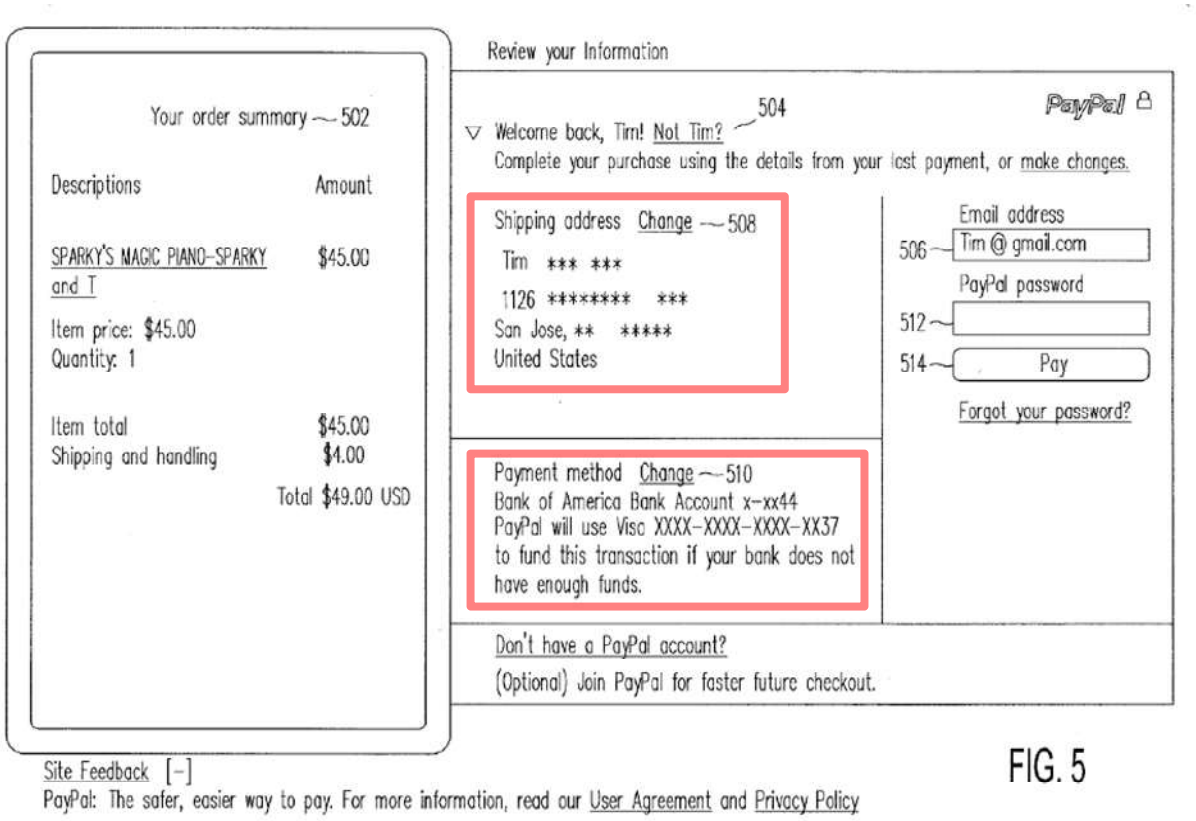


FIG. 5

A POSITA would have been motivated to modify Li's prompt based on Lee's teachings to identify a shipping address so that the user can confirm that the details of the purchase "are acceptable." EX1008, [0038]; EX1002, ¶¶191-192. For example, Li recognizes that users "can find it useful" to see information such as "Payment Account data," to "make it easier…to decide whether to purchase the Object of Interest." EX1004, [0133]; EX1002, ¶191. A POSITA would have understood that, for similar reasons, users may also find it useful to see shipping information "***specifying where the selected product or service is to be delivered***," enabling them to verify that the product/service will be delivered to the correct

location. EX1002, ¶191. The modification is a combination of prior art elements (displaying shipping information on a "checkout page," and displaying product, cost, and payment information on a page) to yield predicable results (displaying product, cost, payment, and shipping information on a page), and a POSITA would have had a reasonable expectation for its success. EX1002, ¶192. Furthermore, a POSITA would have found the modification obvious to try because Li notes that the prompt can include "more elements, and/or different elements" from the specific ones shown. EX1004, [0168]. EX1002, ¶192.

[39.b]

As discussed above, Li's prompt includes a "Buy/Call" object, e.g., "Buy" button, that when selected via the "second user input," enables purchase of the Object of Interest. EX1004, [0005], [0145], FIG. 3A; EX1002, ¶193. The presented "Buy/Call" object is a "user-selectable prompt" that "***solicit[s] approval of the identified information as the second user input***," which, in the combination with Lee, includes all the information recited in limitation [39.a] above. EX1004, [0145]-[0146], claim 1; EX1002, ¶193.

B. Claim 40

Claim 40 is substantively identical to claim 39 and is obvious for the same reasons. EX1002, ¶194.

IX. GROUND 5: CHEN AND BARNES

A. Claim 1

[1.pre]

Chen's "hybrid response system ('HRS')" implements methods for ***providing voice commerce***, "enabling users to purchase a product or service by providing a voice request." EX1005, Abstract; EX1002, ¶200. The HRS is a "***computer system***" ("one or more computing systems" or "computing device") having "***one or more physical processors***" ("a processor") that execute "***program instructions***" stored on a "non-transitory computer-readable medium" to perform the method. EX1005, 6:1-11, 17:34-57, 20:28-39, FIG. 4; EX1002, ¶¶201-202.

[1.a]

Chen's HRS ("***computer system***") receives a "***single first user input***" corresponding to "a first speech-segment message" as "voice input" from "a client device." EX1005, Abstract, 1:52-56, 5:26-41, 18:32-36; EX1002, ¶203. The "first speech-segment message" comprises "***a natural language utterance***" indicating a "command or request" such as a "purchase request." EX1005, 3:58-62, 18:25-38; EX1002, ¶203. For example, FIG. 7 (below) illustrates the single first user input is the utterance "Buy Brand X basketball shoes for me." EX1005, FIG. 7; *see also id.*, 4:47-49, 18:52-19:4 (additional speech-segment message examples); EX1002, ¶¶203-204.

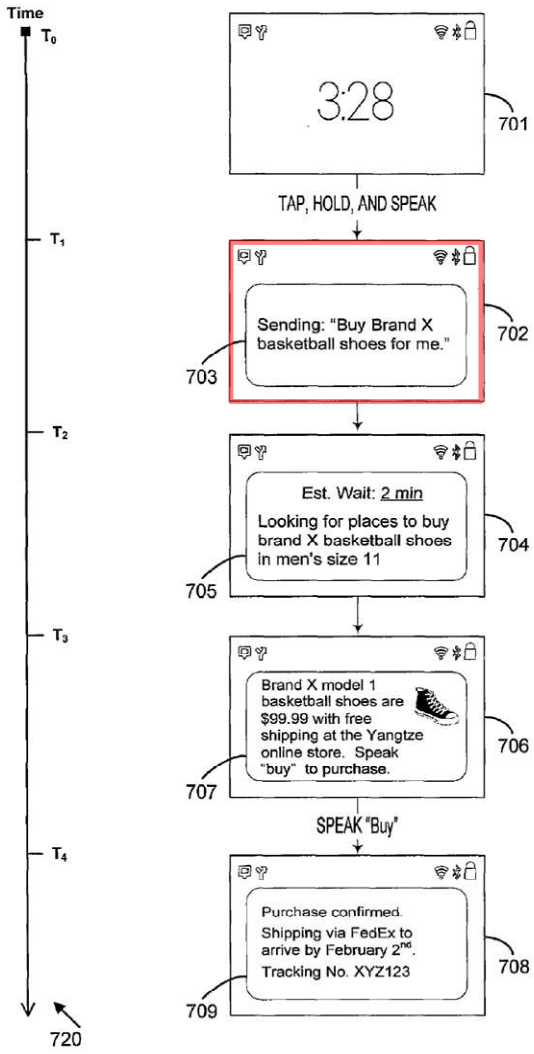


FIG. 7

[1.b]

Chen's HRS includes a "transcription module" that is a "***speech recognition engine***." The "transcription module" recognizes the words or phrases of received "voice input" containing the speech-segment message ("***natural language utterance***") by applying a "speech-to-text process" to the voice input. EX1005, 8:30-39, 23:36-41; EX1002, ¶¶205-206. The HRS provides the natural language

utterance as input to the transcription module, as shown in FIG. 2 (reproduced below). EX1002, ¶¶205-206.

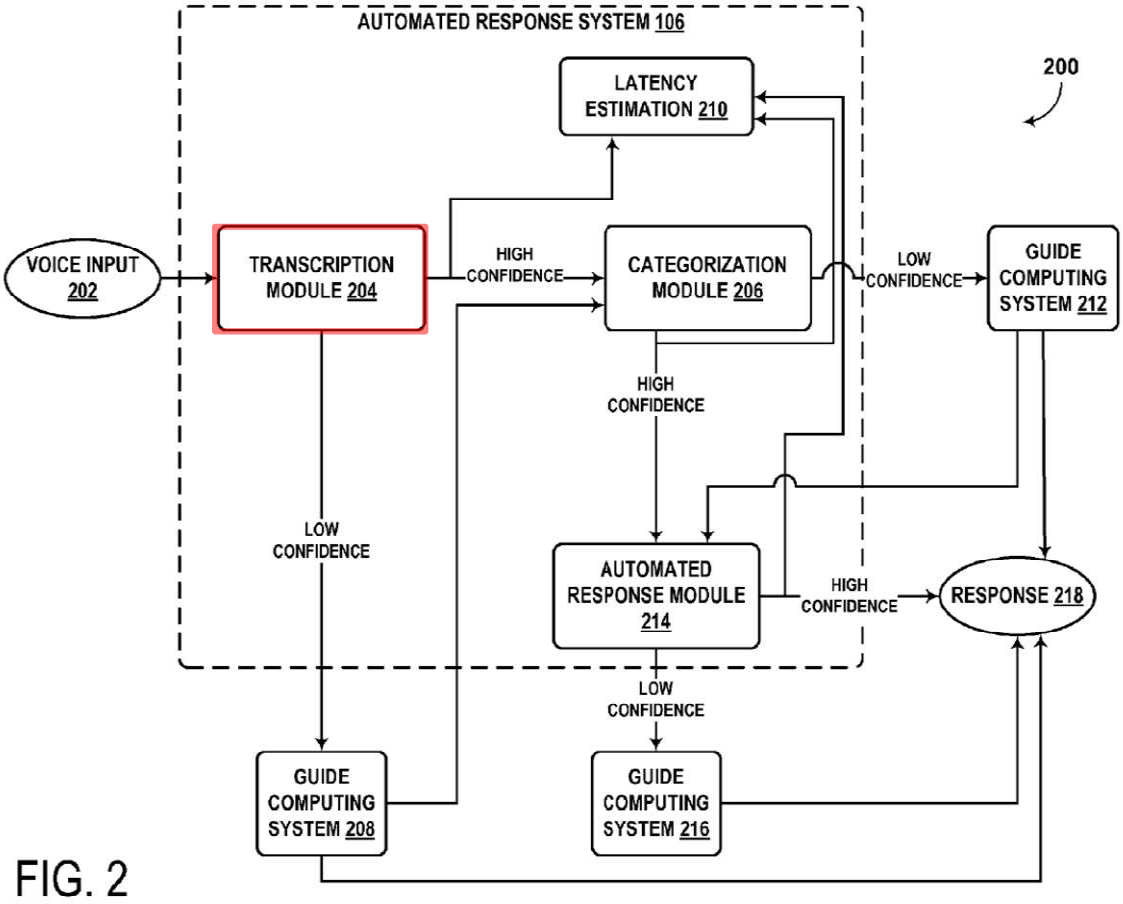


FIG. 2

[1.c]

Chen's "transcription module" ("***speech recognition engine***") applies a "speech-to-text process" to "generate text corresponding to the voice input." EX1005, 8:36-39; EX1002, ¶207. This text is a transcription of "***one or more words or phrases recognized from natural language utterance***." EX1005, 8:36-39; *see also id.*, 5:36-41 ("speech-to-text transcription"); EX1002, ¶207. The HRS

"***obtain[s]***" the generated text as an "***output***" of the transcription module. EX1005, 8:44-46, 9:5-18; FIG. 2; EX1002, ¶207.

[1.d]

Chen's HRS ("***computer system***") identifies "a target product or service in response to the [user's] voice request" "through a series of queries." EX1005, 1:38-39, 18:40-43; EX1002, ¶208. A POSITA would have understood that the "series of queries" is a search "***based on the one or more words or phrases***" because the queries are generated by analyzing the "speech-to-text transcription" of the voice request. *See* EX1005, 9:5-22 ("Categorization module 206" analyzes "the received text"); EX1002, ¶¶208-209. For example, Chen's FIG. 7 shows that the HRS searches "for places to buy brand X basketball shoes in men's size 11" based on a user's request for "Brand X basketball shoes." EX1005, 21:53-58, 22:16-24; EX1002, ¶209. A POSITA would have found it obvious that the queries would search "***one or more databases of products and services***" for the requested shoes, because "queries" are typically used to search for and extract data from databases. EX1002, ¶209.

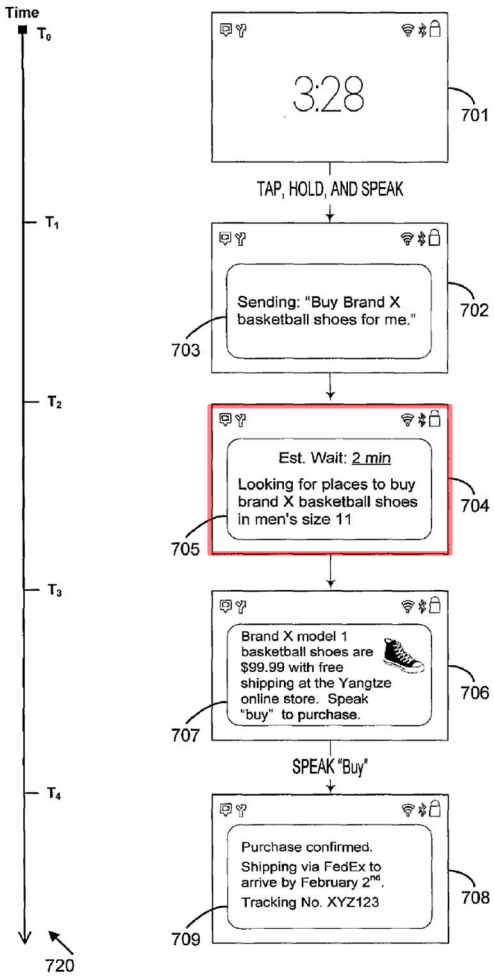


FIG. 7

To the extent that Chen does not explicitly disclose searching "***one or more databases of products or services based on the one or more words or phrases***," the combination with Barnes renders it obvious. EX1002, ¶¶210-215. Barnes discloses a device that determines "product identifying information" from the recognized words or phrases of the user's voice input, to search "data of venders from local memory, a remote computer system, and/or" a "service registry" for "available venders that can provide the product." EX1006, [0167]-[0169], [0172]-[0174]; *see*

also id., [0149] (database "stored locally…or remotely"); EX1002, ¶¶210-212. Barnes then generates a request for each identified vendor to "search[] a [respective] database for [information] of the identified product." EX1006, [0172]-[0174]; EX1002, ¶¶210-212. Barnes thus discloses "***searching one or more databases of products or services based on the one or more words or phrases***," e.g., by searching a local memory or remote computer system for vendors "who offer…the product" and searching vendor databases for the product identified based on the words or phrases. EX1006, [0171], EX1002, ¶¶210-212.

A POSITA would have found it obvious to modify Chen's HRS to search databases as taught by Barnes to better identify a target product or service and available vendors for purchasing the product or service. *See* EX1005, 22:1-8; EX1006, [0167]-[0174]; EX1002, ¶¶195-199, ¶¶213-215. A POSITA would have found this to be an obvious way for Chen's HRS to perform a "series of queries" "[l]ooking for places to buy" a requested product/service, e.g., by querying databases containing data of products offered by different vendors to find "available venders that can provide the product," and sending requests to search respective vendor databases for the requested product. EX1005, 4:66-67, 22:1-8, EX1006, [0121], [0169], [0172]; EX1002, ¶¶198-199, ¶213. This would allow for the HRS to perform a "Multi-Vender Search" to receive data "from [a] plurality of venders," to

"compar[e] the price of the product offered by" different vendors. EX1006, [0164]; EX1002, ¶¶198-199, ¶213. A POSITA would have found this to be an obvious way to identify a "target product/service" for purchase from "an appropriate vendor," e.g., "Brand X basketball shoes in men's size 11" from "Yangtze online store," as taught by Chen. *See* EX1005, 4:55-59, 18:38-43, 22:1-24; EX1002, ¶¶198-199, ¶213.

A POSITA would have been motivated to combine Chen and Barnes. EX1002, ¶¶195-199, ¶214. Both references are in the same field of interactive speech technology and e-commerce that identify a product and a retailer/vendor from which to purchase the product in response to user requests. *Id.*, ¶¶195-197. Chen explains that multiple retailers may be considered when selecting the product/service "through a series of queries," e.g., to determine "the lowest price available." EX1005, 4:10-13, 19:29-32; EX1002, ¶198, ¶¶214-215. Barnes' "Multi-Vender Search" identifies requested products offered by different vendors, so that different purchase options can be compared and evaluated, e.g., based on price. *See* EX1006, [0164]-[0179]; EX1002, ¶198, ¶¶214-215. A POSITA would have been motivated to combine Chen and Barnes to improve how Chen selects a target product/service responsive to a user request. EX1002, ¶199, ¶215. For example, it would be obvious to modify how Chen "[l]ook[s] for places to buy" a requested

product to search a database for available vendors that can provide the product, and to search respective vendor databases as taught by Barnes, to create a system able to search multiple vendors/retailers to present results most likely to be of interest to the user. EX1002, ¶199, ¶215. The proposed modification is a combination of prior art elements using a known technique practiced by Barnes (e.g., identifying multiple vendors and searching a database of each vendor) to improve similar systems (e.g., Chen's HRS "[l]ook[ing] for places to buy" a requested product) in the same way (e.g., the HRS performing a "multi-vender search" to look for places to buy a requested product), and a POSITA would have had a reasonable expectation that it would be successful. *Id*.

[1.e]

Chen's HRS ("***computer system***") "***select[s]…a product or service…to be purchased based on the search***" by automatically identifying "a target product or service" through "a series of queries," which, in the combination with Barnes, search "one or more databases." EX1005, 1:38-39, 4:66-5:1, 18:37-43; EX1002, ¶216. The HRS selects the identified target product/service and prompts the user with "a purchase-approval request" to purchase the selected product/service. EX1005, 18:40-43, 20:9-18; EX1002, ¶216.

The HRS can select the product/service "***without further user input other than the single first user input***." EX1002, ¶217. For example, responsive to a first

user input requesting "Brand X basketball shoes," the HRS searches for and selects "Brand X model 1 basketball shoes...available for $99.99 with free shipping from the Yangtze online store" based on the search, without further user input, as shown in Figure 7 below. EX1005, 21:53-22:24; EX1002, ¶217.

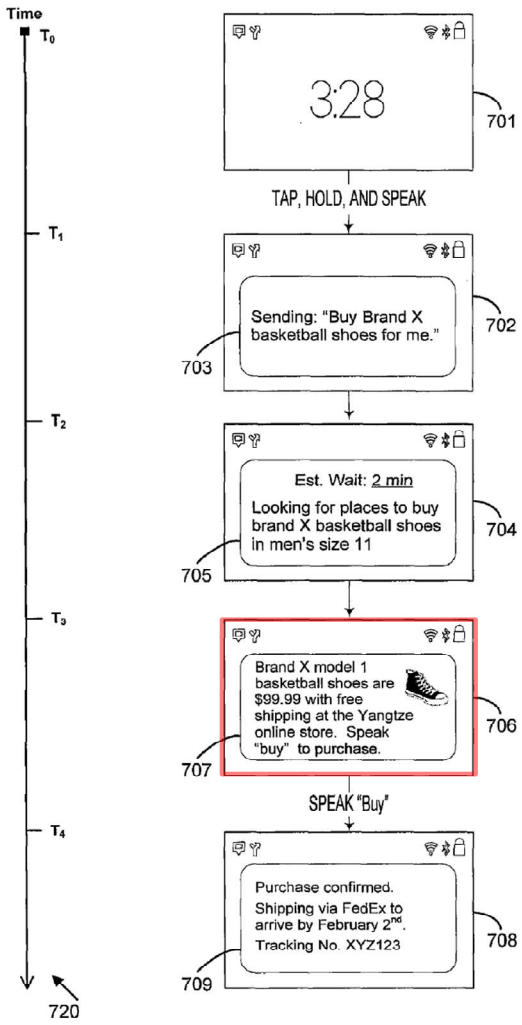


FIG. 7

To the extent that Chen does not explicitly disclose selecting the product or service "***from the database…based on the search***," the combination with Barnes

renders it obvious. EX1006, [0166], [0169]-[0174]; EX1002, ¶218. For example, a POSITA would have found it obvious that the HRS selects "Brand X model 1 basketball shoes" from a vendor database of products offered by "Yangtze online store." EX1002, ¶218.

[1.f]

After determining "an appropriate product," Chen's HRS prompts the user "to confirm the purchase" by "sending a purchase-approval request." EX1005, 4:38-46, 20:9-18; EX1002, ¶219, ¶221. If "satisfied with the details of the purchase-approval request," the user provides a "***second user input***" by "speak[ing] a command, such as 'buy,' that is sent to the hybrid response system." EX1005, 20:9-18; EX1002, ¶¶219-220. The second user input is a "purchase approval response" "***indicating confirmation by [the] user to complete a purchase transaction of the selected product or service***," e.g., the selected shoes shown in FIG. 7 below. EX1005, 20:15-24, 22:19-24, FIG. 7; EX1002, ¶¶220-222.

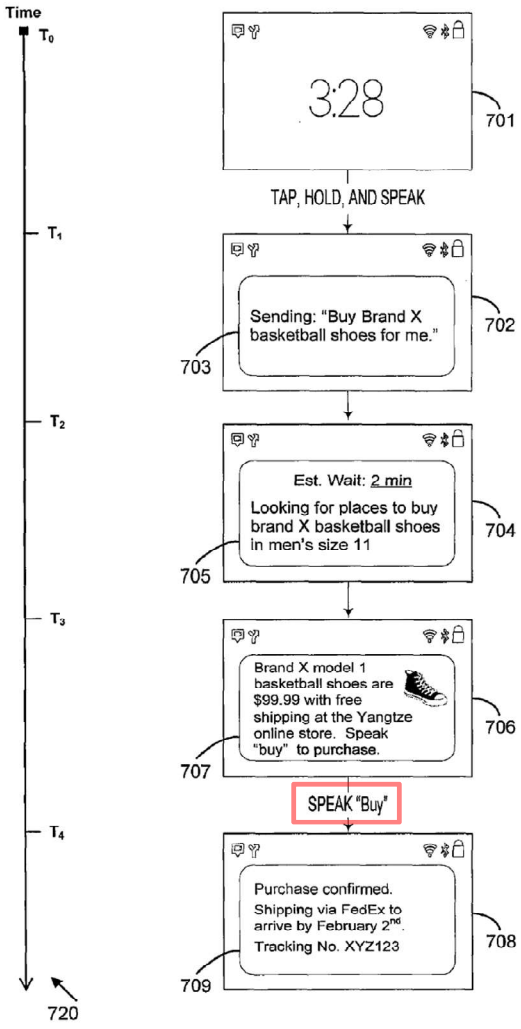


FIG. 7

[1.g]

After receiving the "second user input," Chen's HRS ("***computer system***") "***complet[es]…a purchase transaction***" by "send[ing] a purchase order…for the target product or service." EX1005, 18:43-46, 19:55-67, 20:9-24; EX1002, ¶223. For example, Chen's FIG. 7 shows presenting confirmation-of-purchase message stating "Purchase confirmed. Shipping via FedEx to arrive by February 2nd.

Tracking No. XYZ123" after the purchase transaction is complete, which is done "***without further user input after the receipt of the second user input***," e.g., after the user's spoken command "Buy." EX1005, 22:16-24, 22:38-43, FIG. 7; EX1002, ¶¶223-224.

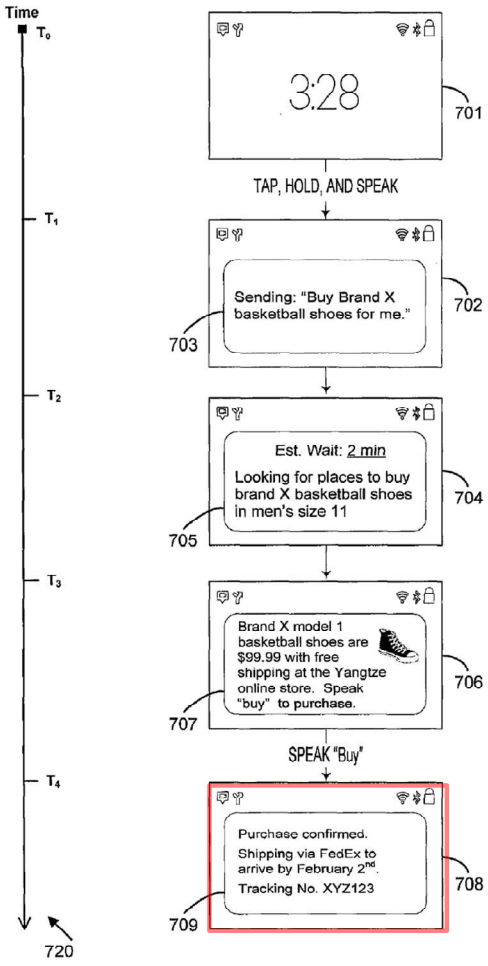


FIG. 7

B. Claim 3

Chen's HRS obtains "user information" stored in "a user-account associated with voice requests," or "a linked user-account…such as Google Wallet," including

"credit card information" corresponding to "***payment information with which to pay for selected products and services***." EX1005, 4:35-43, 4:49-52, 19:62-67; EX1002, ¶225. The payment information is "sent with the order," so that the purchase is "conducted with the user's provided credit card information." EX1005, 4:35-41, 4:59-61, 19:55-67; EX1002, ¶225. The HRS may send and complete the purchase order "***without receiving confirmation of the payment information by the user***." EX1002, ¶201. For example, Chen's FIG. 7 shows the HRS completing the purchase transaction for "Brand X model 1 basketball shoes" without receiving user confirmation of the payment information. EX1005, FIG. 7; EX1002, ¶226.

C. Claim 4

Chen's HRS obtains "user information" from "a user-account" to "facilitate[] the sending of orders," including "***shipping information***" comprising "a default shipping address, a preferred shipping carrier," etc. EX1005, 4:35-52; EX1002, ¶¶227-228. The shipping information (e.g., "default shipping address") specifies "***a name or address of a recipient to which the selected product or service is to be delivered***" following purchase. EX1005, 4:49-61; EX1002, ¶¶227-228. The HRS completes the purchase transaction "***based on the shipping information without receiving confirmation of the shipping information by the user***," by sending the shipping information "with the order," so that the purchase is "shipped to the user's default shipping address." EX1005, 4:35-41, 4:59-61; EX1002, ¶229. For example,

FIG. 7 shows the HRS completing a purchase for "Brand X model 1 basketball shoes" including "Shipping via FedEx," without receiving user confirmation of the shipping information. EX1005, 22:38-43, FIG. 7; EX1002, ¶229.

D. Claim 5

[5.pre]-[5.a]

Chen's HRS ("***computer system***") obtains seller information describing available products or services when searching "for places to buy" to a target product/service, e.g., information that "Yangtze online store" sells "Brand X model 1 basketball shoes" for $99.99, and a POSITA would have found it obvious for such information to be obtained from "***remote information sources***," such as a search engine or an information source associated with the seller (e.g., database or website of "Yangtze online store"). EX1005, 20:9-15, 21:53-22:24; EX1002, ¶¶230-231.

To the extent that Chen does not explicitly disclose obtaining the claimed "***seller information***" via "***remote information sources***," the combination with Barnes renders it obvious. EX1002, ¶232. Barnes discloses identifying "available venders that can provide the product" by "retriev[ing] data of venders from local memory, a remote computer system, and/or" a "service registry," and obtaining product price and availability information of each identified vendor/seller from respective "vender computer systems (VCSs)." EX1006, [0167]-[0169], [0172]-[0174]; EX1002, ¶232. Thus, Barnes discloses obtaining the seller information via

"***one or more remote information sources***," e.g., the VCSs of identified vendors. EX1002, ¶232.

A POSITA would have found it obvious to modify Chen's HRS to obtain seller information from one or more remote information sources (e.g., VCSs of identified vendors) as taught by Barnes. *See* EX1005, 22:1-8; EX1006, [0167]-[0174]; EX1002, ¶¶233-234. Because the price and availability of products from a given vendor may change over time, this would help ensure that the seller information obtained by the HRS is accurate and up-to-date. EX1002, ¶233. The modification applies a known technique used by Barnes's speech interface (e.g., identifying candidate vendors and obtaining current information from each vendor) to improve Chen's HRS in the same way, and a POSITA would have had a reasonable expectation that it would be successful. *Id*., ¶234. For example, in the example of Chen's FIG. 7, a POSITA would have found it obvious for the HRS in the combination to, when "[l]ooking for places to buy" the requested shoes, send a request to a computer system associated with Yangtze online store to obtain up-to-date "seller information" indicating the current price and availability of "Brand X basketball shoes" at Yangtze online store, based on the teaching of Barnes. *Id*.

[5.b]

As discussed above, Barnes accesses data of "available venders" "from local memory, a remote computer system, and/or" vendor "service registry." EX1006,

[0167]-[0169], [0172]-[0174]; EX1002, ¶235. Barnes further discloses that the vendor data in the local memory or remote computer, which are part of the "***one or more databases***" of limitation [1.d] discussed above, was stored "during a previous transaction." EX1006, [0149], [0171]; EX1002, ¶¶235-236. Barnes thus discloses storing seller/vendor information in "one or more databases" of the local memory or remote computer. EX1002, ¶¶235-236.

A POSITA would have found it obvious to modify Chen's HRS to store obtained seller information in a database based on the teaching of Barnes. *See* EX1005, 22:1-8; EX1006, [0167]-[0174]; EX1002, ¶237. For example, Chen discloses storing information about "previous purchases" for later use. EX1005, 19:33-47; EX1002, ¶237. A POSITA would have found it obvious for the HRS to store vendor information from "a previous transaction" as taught in Barnes, for more efficient retrieval when searching for "available venders" for a later transaction. *See* EX1006, [0149], [0169], [0171]; EX1002, ¶237. The modification is a combination of prior art elements relating to storing information of previous transactions disclosed in Chen and Barnes according to known methods to yield predictable results, and a POSITA would have had a reasonable expectation of success. EX1002, ¶237.

E. Claim 6

Barnes discloses obtaining seller information from "***remote information sources***" such as VCSs of third-party vendors (which may be a "***third party retailer, and/or a third party service provider***"). EX1006, [0164], [0172]-[0174], [0357] (referring to "a vender or other third party"); EX1002, ¶238.

F. Claim 7

Chen's HRS "***select[s]…a seller***" by searching "for places to buy" the target product/service and selecting a seller, e.g., "based on the lowest price available." EX1005, 19:24-32, 22:1-8; EX1002, ¶239. As one example, the HRS selects the seller "Yangtze online store" to purchase "Brand X basketball shoe." EX1005, 1:38-39, 19:24-32, 22:1-8, FIG. 7; EX1002, ¶¶239-240; *see also* EX1006, [0166].

G. Claim 8

Chen's HRS selects "the target product or service…based on one or more predetermined user preferences," such as "lowest price available." EX1005, 19:24-32; EX1002, ¶241. Chen's HRS therefore "***select[s] the seller based on the price***," e.g., "lowest price." EX1005, 4:55-61; EX1002, ¶241; *see also* EX1005, 21:53-22:24, FIG. 7 (obtaining information that "Brand X" shoes are available from "Yangtze online store" for "$99.99 with free shipping").

The combination with Barnes also renders the limitation obvious, because Barnes discloses "determin[ing] the venders offering [a requested] product," and

obtaining seller "price information" to "determine[] the vender with the lowest price." EX1006, [0166]; EX1002, ¶242. A POSITA would have found it obvious to modify Chen's HRS to obtain seller information to select the seller based on price as taught by Barnes. EX1002, ¶242. The modification only involves combining prior art elements (e.g., obtaining price information and selecting a seller based on price) according to known methods to yield predictable results, e.g., the HRS comparing seller price information to select one "with the lowest price." EX1006, [0166]; EX1005, 19:29-31; EX1002, ¶242.

H. Claim 9

Chen's HRS obtains "***user profile information associated with the user***" corresponding to "user-account information that the user opted to make available," including "predetermined user preferences" such as the user's "preferred retailers," "specified stores or service providers," which are "***a predetermined set of sellers associated with the user***." EX1005, 4:10-13, 19:24-32, 22:8-15; EX1002, ¶¶243-244. The HRS selects the seller from the set by "selecting the target product or service based on" the user's "specified stores or service providers." EX1005, 19:24-32; EX1002, ¶¶244-245.

I. Claim 10

As discussed above, Barnes discloses retrieving vendor information from "a database" "such as a service registry or directory." EX1006, [0121]; EX1002, ¶246.

The "service registry or directory" may be "a predetermined service registry" and/or a "service registry for a given area." EX1006, [0351], [0364]; EX1002, ¶246. A POSITA would have found it obvious for a predetermined "service registry or directory" of vendor information to contain "a predetermined set of sellers" specified or maintained by "***an administrator of the system that is different from the user***" because a typical responsibility for network administrators is to maintain network hardware and software, including registries and directories. EX1002, ¶246.

Barnes further discloses "***selecting the seller from the predetermined set of administrator-specified sellers***" by searching a "service registry" to identify vendors offering the requested product/service. EX1006, [0171]-[0174]; EX1002, ¶247. In the combined system, in which Chen's HRS is modified to identify available vendors as taught by Barnes, a POSITA would have understood that the HRS may select the seller from the predetermined set of sellers in the same way as taught by Barnes. EX1002, ¶247.

J. Claim 11

[11.pre]-[11.a]

These limitations are met for the same reasons as provided for claim 3. *See also* EX1005, 4:35-43, 4:49-52, 19:62-67; EX1002, ¶¶248-249.

[11.b]

As discussed for claim 4, the HRS completes a purchase by "***obtaining…shipping information***" that "***specifies a name or address of a recipient to which the selected product or service is to be delivered after [it] is purchased***." *See also* EX1005, 4:35-43, 4:49-61, 19:62-67; EX1002, ¶250. The HRS completes the purchase transaction "***based on the payment information and the shipping information***" because it sends the payment and shipping information "with the order" that is then processed "with the user's provided credit card information and shipped to the user's default shipping address." EX1005, 4:35-41, 4:59-61, 22:22-24; EX1002, ¶251.

K. Claim 14

As discussed for claims 3 and 4, Chen's HRS sends the payment and shipping information "with the order" to "***complet[e]…the purchase transaction without receiving confirmation of the payment information or the shipping information by the user***." EX1005, 4:35-41, 4:59-61, 19:55-62, 22:22-24; EX1002, ¶252. For example, FIG. 7 shows completing the purchase of "Brand X model 1 basketball shoes" after the user says "Buy," without the user confirming the payment or the shipping information. EX1005, FIG. 7; EX1002, ¶252.

L. Claim 15

[15.pre]-[15.a]

Chen's HRS presents a "purchase-approval request" to the user that prompts the user "to confirm the purchase." EX1005, 4:38-46, 20:9-15; EX1002, ¶¶253-254. This meets the claimed "***request for user confirmation to complete the purchase transaction for the selected product or service***." EX1005, 4:38-46, 20:9-15; EX1002, ¶¶253-254. FIG. 7 shows an example purchase-approval request ("Brand X model 1 basketball shoes are $99.99 with free shipping at the Yangtze online store. Speak 'buy' to purchase"), requesting the user to say "Buy" to confirm the purchase of the selected shoes. *See id.*, 22:16-24, FIG. 7; EX1002, ¶254. The HRS provides the purchase-approval request "***without further user input after the receipt of other than the single first user input***," e.g., "Buy Brand X basketball shoes for me." *See id.*, 21:53-22:24, FIG. 7; EX1002, ¶255. Chen further discloses that "***the second user input is received responsive to the request***" because the user's spoken command "Buy" is received responsive to the user being presented the "purchase-approval request." EX1005, 20:9-18; EX1002, ¶256.

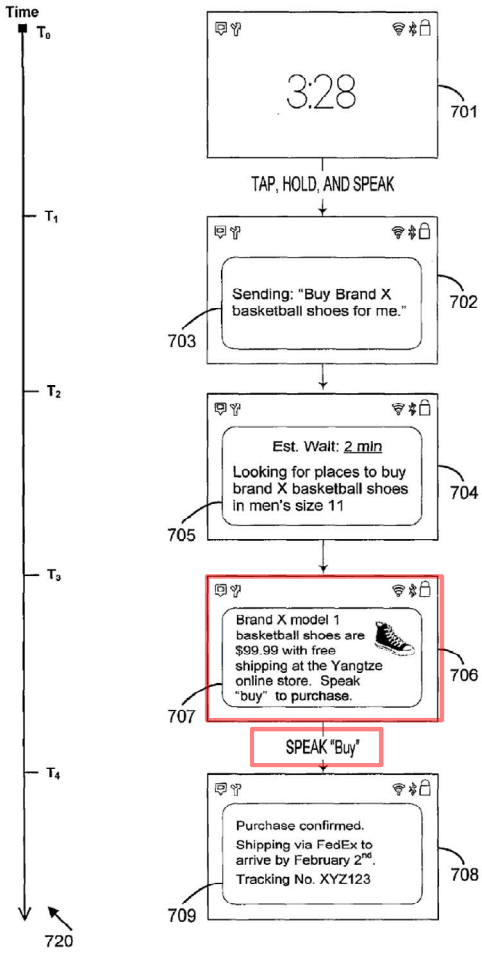


FIG. 7

[15.b]

Chen's HRS "***determin[es]…that the user has confirmed the purchase transaction based on the second user input***" when the user "speak[s] a command, such as 'buy'" to send "a purchase approval response to the hybrid response system." EX1005, 20:15-18, 22:22-24; EX1002, ¶257. The HRS, upon determining that the purchase approval response has been received, completes the purchase by "send[ing] a purchase order…for the target product or service." EX1005, 18:43-46, 19:55-67,

22:22-24; *see also id.*, 9:19-26 (HRS analyzes each received input to determine whether it constitutes an actionable command); EX1002, ¶257. For example, FIG. 7 shows the client device "receive[s] a confirmation message" from the HRS that the purchase is complete. EX1005, 22:38-43, FIG. 7; EX1002, ¶257.

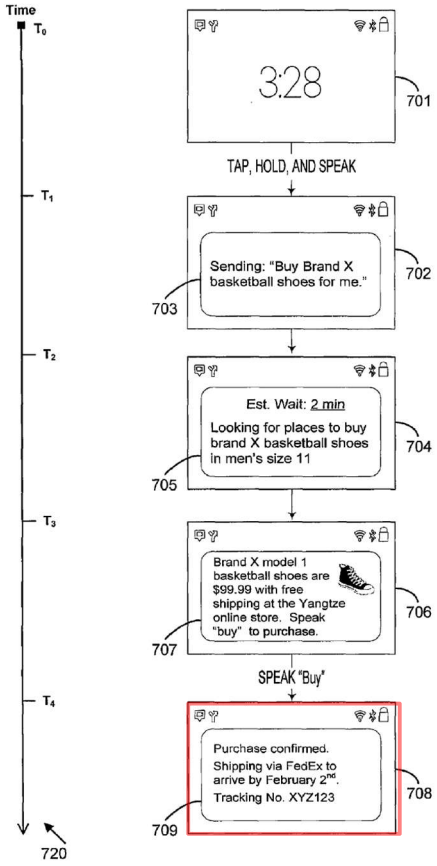


FIG. 7

M. Claim 16

The combination of Chen and Barnes renders claim 16 obvious for similar reasons as claim 1. EX1002, ¶258. The claimed "***system***" is met by Chen's HRS, which, as discussed above in relation to limitation [1.pre], is a "system" that provides

voice commerce. EX1005, Abstract; EX1002, ¶258. The HRS includes "a processor" programmed to execute "program code" to perform specific functions, which meets the "***one or more physical processors programmed with computer program instructions***." *See* EX1005, Abstract, 20:32-39, 23:9-21; EX1002, ¶258. The remaining limitations of claim 16 are substantively identical to those of claim 1. EX1002, ¶258.

N. Claims 18-26 and 29-30

Claims 18-26 and 29-30 are substantively identical to claims 3-11 and 14-15, respectively, and are obvious for the same reasons. EX1002, ¶¶259-269.

O. Claim 31

[31.pre]-[31.a]

Limitations [31.pre] and [31.a] are identical to limitations [1.pre] and [1.a], respectively, and are obvious for the same reasons. EX1002, ¶¶270-271.

[31.b]

As discussed for limitation [1.c], Chen's "transcription module" applies a "speech-to-text process" to recognize and generate text corresponding to "***one or more words or phrases***" of "***the natural language utterance***" received in the voice input. EX1005, 8:36-39; EX1002, ¶272.

[31.c]

As discussed for limitation [1.d], Chen in combination with Barnes discloses "***searching…one or more databases of products or services based on the one or more words or phrases***" to identify "a target product or service in response to the [user's] voice request." EX1005, 1:38-40; EX1002, ¶273. In addition, the HRS performs the search "***without using further user input other than the single first user input***." EX1002, ¶274. For example, the HRS, in response to a request for "Brand X basketball shoes," performs a search "[l]ooking for places to buy brand X basketball shoes in men's size 11," which as shown in FIG. 7, is done without using further user input other than the single first user input. EX1005, 21:53-22:24; EX1002, ¶¶274-275.

[31.d]

As discussed for limitation [1.e], Chen-Barnes's HRS identifies "a target product or service" responsive to the user's voice request from one or more searched databases. EX1005, 4:66-5:1, 20:9-18; EX1006, [0166]-[0174]; EX1002, ¶¶276-277. The HRS then causes a client device to present to the user a purchase-approval request containing "an identification of the target product or service" available for purchase, e.g., "Brand X model 1 basketball shoes…available for $99.99 with free shipping from the Yangtze online store." EX1005, 20:9-18, 22:16-24, FIG. 7; EX1006, [0177]-[0178]; EX1002, ¶¶276-277. The presented target product or

service is "***a set of search results…presented to a user based on the search***" conducted by the HRS discussed above, "***indicating one or more products or services from the database available for purchase***." EX1002, ¶¶276-277.

In addition, to the extent the claimed "***set of search results***" requires presentation of multiple search results, the combination of Chen and Barnes renders this obvious. EX1002, ¶278. Barnes discloses receiving search results from multiple vendors, "sort[ing] the responses from the venders according to price," and "display[ing] the data in order of ascending price," whereupon the user can select one of the presented results "to purchase the product from a particular vender." EX1006, [0166], [0174], [0177]-[0178]; EX1002, ¶278. A POSITA would have found it obvious to modify Chen's HRS to display multiple search results as taught by Barnes, to give the user the flexibility to choose between multiple purchase options that may satisfy their request. EX1005, 19:36-42; EX1002, ¶279. A POSITA would have had a reasonable expectation of success because the combination is a simple substitution of one known technique (presenting multiple selectable search results) for another (presenting a selectable search result) to obtain predictable results. EX1002, ¶279.

[31.e]

As discussed for limitation [1.f], the HRS receives the "***second user input***" when the user speaks a command, e.g., "buy." EX1005, 4:38-46, 20:15-24; EX1002,

¶280. By providing the second user input, e.g., speaking "buy," the user selects the presented target product/service to be purchased "***from the set of search results***" identifying "***one or more products or services from the database to be purchased on behalf of the user***." EX1002, ¶¶280-281. For example, in Chen's FIG. 7, the user speaks "buy" to select and identify the presented basketball shoes available from "Yangtze online store" to be purchased on behalf of the user. EX1005, 22:16-24, FIG. 7; EX1002, ¶281.

As discussed above, the HRS in the combination may present a plurality of vendor "responses" corresponding to products from different vendors. EX1006, [0177]; EX1002, ¶282. Upon "viewing the presented data," the user "supplies an input" requesting "to purchase the product from a particular vender," which is the "***second user input***" selecting "the product from a particular vender" from the set of search results to be purchased. EX1006, [0178]; EX1002, ¶282. A POSITA would have found it obvious to make this modification to allow the user to choose between multiple presented results. EX1002, ¶283. A POSITA would have had a reasonable expectation of success because the combination is a simple substitution of one known technique (selecting between multiple presented options) for another (selecting a presented option) to yield predictable results. EX1002, ¶283.

[31.f]

The HRS obtains "user information" stored in "a user-account associated with voice requests" or "derived from a linked user-account," which is "***user profile information associated with the user***." EX1005, 4:35-43, 19:62-67; EX1002, ¶284.

[31.g]

The HRS obtains "***payment information***" and "***shipping information***," as discussed for claims 3, 4, and limitations [11.a]-[11.b], based on the "***user profile information***," e.g., "user information" stored in "a user-account associated with voice requests," or "derived from a linked user-account. EX1005, 4:35-43, 19:62-67; EX1002, ¶285.

[31.h]

As explained for limitation [1.g], the HRS completes the purchase by "send[ing] a purchase order, via the associated user-account, for the target product or service." EX1005, 18:43-46, 19:55-67, 20:9-18, 22:38-43; EX1002, ¶286. In addition, a POSITA would have found it obvious that the HRS completes the purchase "***without further user input after identifying the payment information and the shipping information***" because the HRS identifies the payment and shipping information from the "user-account" and sends it "with the order" after the user says "buy" to complete the purchase using "the user's provided credit card

information and shipped to the user's default shipping address," without further user input. EX1005, 4:35-41, 4:59-61; EX1002, ¶287.

To the extent the Chen-Barnes combination does not explicitly disclose the timing at which the payment and shipping information is identified, a POSITA would have found it obvious to identify it after receipt of the second user input. EX1002, ¶¶288-289. For example, a POSITA would have understood that the HRS may generate the purchase-approval request without the payment and shipping information. EX1002, ¶288. In addition, in cases where multiple results are presented, a POSITA would have understood that when the user provides the second user input "to purchase the product from a particular vender," the HRS would identify the purchase and shipping information to be sent with the purchase order to the vendor. EX1005, 18:43-46, 19:55-67; EX1006, [0177]-[0178]; EX1002, ¶289.

P. Claim 32

These limitations are substantively identical to limitations [1.b] and [1.c] and are obvious for the same reasons. EX1002, ¶¶290-292.

Q. Claim 33

These limitations are substantively identical to limitations [5.a] and [5.b] and are obvious for the same reasons. EX1002, ¶¶293-295.

R. Claim 34

The limitations of claim 34 are substantively identical to those of claim 14 and are obvious for the same reasons. EX1002, ¶296.

S. Claim 35

Li renders claim 35 obvious for similar reasons as claims 16 and 31. EX1002, ¶297.

T. Claims 36-38

Claims 36-38 are substantively identical to claims 32-34, respectively, and are obvious for the same reasons. EX1002, ¶¶298-300.

X. GROUND 6: CHEN, BARNES, AND KENNEWICK

A. Claim 2

Chen-Barnes in combination with Kennewick renders claim 2 obvious. EX1002, ¶¶301-308. Chen's HRS includes a "categorization module" that analyzes "text corresponding to the voice input" ("***one or more words or phrases***") to "classify" a speech segment as "a particular type, [or] relat[ing] to a certain topic," e.g., whether it is a question seeking information ("where can I get lunch right now?") or a purchase request ("buy those shoes for me."). EX1005, 9:19-47; EX1002, ¶301. The categorization module determining the "type of message" of the user's speech input corresponds to determining "***a context***" based on the words and phrases of the speech input. EX1002, ¶301. This is consistent with the '385 patent's

explanation that context may comprise an indication of what the user intends to do. *See* EX1001, 12:50-57 ("a user input related to 'lawnmower'" has a context "indicating that the user intends to *buy* a lawnmower," emphasis added); EX1002, ¶301. If the categorization module determines that the speech segment is of a particular type, e.g., a "purchase request," then the HRS "determines a target product or service based on at least the purchase request." EX1005, 18:36-40; EX1002, ¶302. Thus, Chen's HRS selects the target product or service "***based at least on the determined context***," e.g., the context that the user request is a purchase request. EX1002, ¶302.

Chen also renders obvious selecting the product/service based on the determined context relating to a "certain topic." *See* EX1005, 9:42-47; EX1002, ¶303. When the user requests "Brand X basketball shoes," the HRS determines that the request relates to shoes to identify account information indicating "that the particular user wears size 11 shoes." EX1005, 21:64-22:15; EX1002, ¶303. The HRS thus selects the product by accessing the appropriate account information based on the determined context. EX1002, ¶303; *see also* EX1001, 12:50-57; EX1002, ¶303.

In addition, the combination with Kennewick renders the limitation obvious. EX1002, ¶¶304-308. Kennewick discloses determining "the most likely context"

for an utterance by "examin[ing] the tokens" corresponding to the recognized words and phrases and "applying prior probabilities or fuzzy possibilities to keyword matching." EX1007, [0032], [0160]; EX1002, ¶304. The context "determine[s] the domain" of the utterance, corresponding to the type of command or action to be performed. EX1007, [0160], *see also id.*, [0018] (describing different domains such as "query and response," "control," etc.); EX1002, ¶304.

In the combined system, it would have been obvious to apply Kennewick's teaching of "***determining...a context***" by examining the recognized words or phrases ("tokens") of the user's input and "applying prior probabilities or fuzzy possibilities to keyword matching, user profile 110, dialog history, and context stack contents" to enhance how Chen's "categorization module" categorizes the user's speech as "a particular type" or relating to a "certain topic," and make the categorization more accurate and "robust[] to partial failure." EX1007, [0011], [0160], EX1005, 9:19-50; EX1002, ¶¶305-308; *see also* EX1005, 18:54-19:4 (describing different types of commands, e.g., to buy "product X," "Reserve Hotel X," "Book a flight," "Rent a four-door sedan," etc.). In the combination, the HRS would determine the appropriate context of the user's request (e.g., type of request or topic) as taught by Kennewick, and select the product or service based on the determined context as

taught by Chen-Barnes. *See, e.g.*, EX1005, 1:38-39, 18:40-43, 21:53-58, 22:16-24, FIG. 7; EX1002, ¶305.

A POSITA would have been motivated to combine Chen and Barnes with Kennewick. EX1002, ¶¶307-308. The references all relate to speech-based interfaces through which users can search for and purchase products using voice utterances, and which categorize received user requests and perform different actions based on the categorization. *See, e.g.*, EX1005, Abstract, 1:38-40, 9:19-50, FIG. 7; EX1006, [0017]-[0018], [0032], [0160], [0164], [0167]-[0179]; EX1007, Abstract, [0018], [0066]-[0068]; EX1002, ¶307. A POSITA would have been motivated to modify how Chen's HRS categorizes user requests, to make use of "prior probabilities or fuzzy possibilities [applied] to keyword matching" and other information such as user profiles, dialog history, etc. as taught by Kennewick, to create a more robust speech system that can respond to different types of requests with different domain-specific behaviors. EX1002, ¶307. Doing so would involve simple substitution of one known technique (application of "prior probabilities or fuzzy possibilities" to determine context and categorize requests) for another (general analysis of speech text to categorize requests) to achieve the predictable result of a speech system that categorizes user requests in a manner that is more

"robust[] to partial failure," and a POSITA would have had a reasonable expectation for its success. *See* EX1007, [0011]; EX1002, ¶308.

B. Claim 17

Claim 17 is substantively identical to claim 2 and is obvious for the same reasons. EX1002, ¶309.

XI. GROUND 7: CHEN, BARNES, AND LI

A. Claim 12

Chen-Barnes in combination with Li renders claim 12 obvious. EX1002, ¶¶310-314. Chen discloses that the first user input may include a recipient, e.g., "buy those shoes for me," and obtaining shipping information such as the user's "shipping address." EX1005, 4:47-52, 9:31-34, 21:56-67; EX1002, ¶310. However, to the extent that Chen-Barnes does not explicitly disclose "***identifying...an intended recipient***" as claimed and "***obtaining…an address of the intended recipient***," the combination with Li renders it obvious. EX1002, ¶¶311-314. As discussed above, Li discloses analyzing the words or phrases of the user's voice input to identify an "***intended recipient***," e.g., "Mary" from "Buy and send flowers to Mary this Valentine's Day." EX1004, [0213]; EX1002, ¶311. Li also obtains "***an address of the intended recipient***" by "identify[ing] the name and shipping address of the recipient" from the user's "Social Network data." EX1004, [0293]; EX1002, ¶311.

Chen's HRS analyzes the text of user input to determine information about the request, and a POSITA would have been motivated to modify the HRS to incorporate Li's teaching of analyzing the text to identify specific data such as an intended recipient, to expand the types of requests the HRS can process to include purchase requests on behalf of others. EX1002, ¶312. For example, where the "***single first user input***" is "Buy Brand X basketball shoes for me," a POSITA would have found it obvious for HRS to use Li's teachings to identify the "intended recipient" as "me," and that the same techniques may be used to identify other recipients, e.g., if the user had said "Buy Brand X basket shoes *for Mary*" instead of "for me." *Id*., ¶312. A POSITA would also have found it obvious to modify Chen's HRS to incorporate Li's teaching of obtaining the intended recipient's address so that the purchased product/service is delivered to the correct recipient. *Id*., ¶313. Indeed, Chen discloses that the HRS may have access to social networking services and address books, and a POSITA would have found it obvious in the combination for the HRS to obtain the address based on social network data or an address book. EX1005, 18:18-21; EX1002, ¶313.

A POSITA would have been motivated to combine the references, which all relate to speech-based interfaces allowing users to search for and purchase products using natural language utterances, to increase the HRS's ability to enable users to

not only purchase products for themselves ("for me") but also for others ("for Mary"). *See, e.g.*, EX1005, Abstract, 1:38-40, FIG. 7; EX1006, [0032], [0164], [0167]-[0179]; EX1004, [0002], [0009], [0188]; EX1002, ¶314. A POSITA would have had a reasonable expectation of success because it is a combination of known prior art techniques for extracting information from recognized text (analyzing recognized text to determine a type of request, and to determine an intended recipient of the request) according to known methods to yield predictable results. EX1002, ¶314.

B. Claim 13

As discussed above, Li discloses accessing the user's "Social Network data," a type of "***address book***," to "identify the name and shipping address of the recipient." EX1004, [0293]; EX1002, ¶315. In addition, Chen's HRS may access social networking services and address books. EX1005, 18:18-21; EX1002, ¶316. In the combination, it would have been obvious to apply Li's teaching of accessing an address book of the user (e.g., Chen's "address book," or Li's social network data) to enable the HRS to obtain an address for the intended recipient, so that the purchased product/service is delivered to the correct recipient. EX1002, ¶¶315-316.

C. Claims 27-28

Claim 27-28 are substantively identical to claims 12-13, respectively, and are obvious for the same reasons. EX1002, ¶¶317-318.

XII. GROUND 8: CHEN, BARNES, AND LEE

A. Claim 39

[39.pre]-[39.a]

Chen and Barnes in combination with Lee renders this limitation obvious. EX1002, ¶¶319-323. Chen's HRS presents a "purchase-approval request" prompting the user "to confirm the purchase," which identifies the "target product or service" ("***selected product or service***") and the price ("***cost associated with the purchase of the selected product or service***"). EX1005, 4:44-46, 20:9-15; EX1002, ¶320; *see also* EX1005, FIG. 7 ("Brand X model 1 basketball shoes are available for $99.99 with free shipping from the Yangtze online store. Speak 'buy' to purchase"). A POSITA also would have found it obvious for the purchase-approval request to include additional information such as payment information to pay the associated cost, and shipping information specifying where the selected product or service is to be delivered. EX1002, ¶320.

To the extent that Chen and Barnes do not explicitly disclose the purchase-approval request identifying payment and shipping information, the combination with Lee renders it obvious. EX1002, ¶¶321-323. As discussed above, Lee's e-commerce system presents a "***prompt***" (e.g., "one-page checkout page" as shown in FIG. 5 below) containing the "details of [a] purchase," including payment information corresponding to a "last used payment method," and a "shipping

address" "***specifying where the selected product or service is to be delivered***." EX1008, Abstract, [0038], [0044], FIG. 5; EX1002, ¶321.

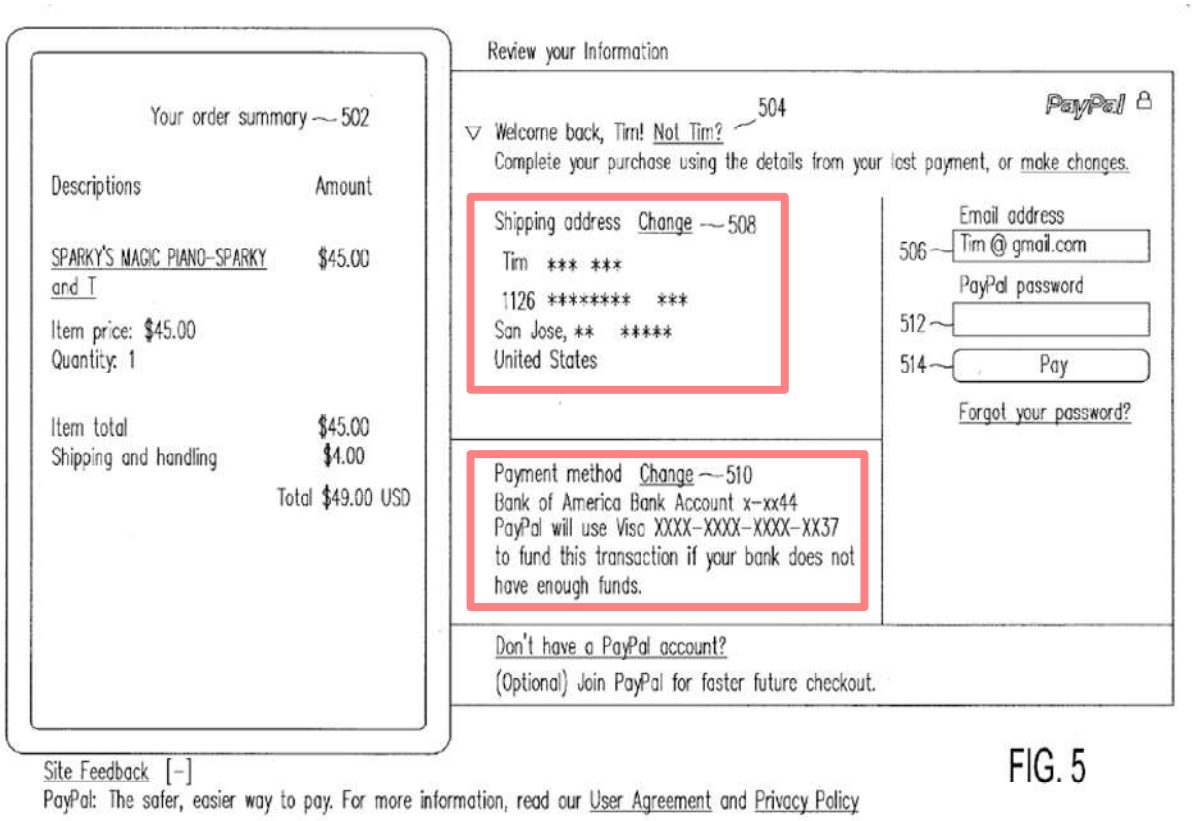


FIG. 5

Lee's "one-page checkout page" performs a similar function as Chen's "purchase-approval request," allowing the user to review and approve the "details of the purchase." EX1008, [0038]; EX1005, 4:44-46, 20:9-15; EX1002, ¶322. A POSITA would have been motivated to modify Chen's "purchase-approval request" based on Lee's "one-page checkout page" to include payment and shipping information, to ensure that the user "is satisfied with the details of" the purchase before "confirm[ing] the purchase." EX1005, 4:43-46, 20:9-18; EX1002, ¶322.

Indeed, Chen recognizes "other possibilities" for information included in the purchase-approval request, and a POSITA would have found it obvious to include payment information and shipping information as taught by Lee. EX1005, 20:9-18; EX1002, ¶322. This is a combination of prior art elements (displaying payment and shipping information to the user, with displaying product, vendor, shipping price, etc. information to the user) to yield predictable results (e.g., displaying product, cost, payment, and shipping information on a page). EX1002, ¶323. A POSITA would have had a reasonable expectation of success as displaying different types of information to a user was well-known. EX1005, 20:9-18; EX1002, ¶323.

[39.b]

Chen's HRS "***solicit[s] approval of the identified information***," which in the combination includes payment and shipping information, "***as the second user input***," by prompting the user to make the second user input if they approve. EX1005, 4:44-46, 20:9-18, 22:19-24; EX1002, ¶324. For example, the "purchase-approval request" may instruct the user to "Speak 'buy,'" to approve the information and make the purchase EX1005, 20:9-18, 22:19-24; EX1002, ¶324.

B. Claim 40

Claim 40 is substantively identical to claim 39 and is obvious for the same reasons. EX1002, ¶325.

XIII. CONCLUSION

For these reasons, Petitioner requests *inter partes* review and cancellation of the challenged claims. *See* EX1002, ¶¶1-325.

XIV. STANDING

Petitioner certifies that Petitioner is not barred or estopped from requesting this *inter partes* review and the '385 patent is IPR-eligible.

XV. MANDATORY NOTICES AND FEES

A. Real Party-in-Interest

Petitioner is the real party-in-interest. No other party directed, controlled, or funded this IPR proceeding.

B. Related Matters

Patent Owner asserts the '385 patent against Petitioner in *VB Assets, LLC v. Amazon.com Services, LLC*, No. 1:24-cv-00839 (District of Delaware, July 18, 2024) (the "parallel litigation").

Petitioner is aware of the following additional related matters involving the '385 patent and/or related patents:

Case Caption	Forum	Patents
VB Assets LLC v. SoundHound AI Inc., Case No. 1:24-cv-01279	DDE	7,818,176 10,755,699 11,087,385 11,222,626 10,297,249 9,269,097

Case Caption	Forum	Patents
		9,502,025 8,886,536 8,073,681
VB Assets LLC v. Amazon.com Services LLC et al., Case No. 1:19-cv-01410	DDE	7,818,176 9,626,703 9,015,049 9,269,097 8,886,536 8,073,681
VB Assets LLC v. Amazon.com Services LLC, Case No. 25-1142	Fed. Cir.	7,818,176 9,626,703 9,015,049 9,269,097 8,886,536 8,073,681
Amazon.com Services LLC v. VB Assets LLC, Case No. 25-1113	Fed. Cir.	7,818,176 9,626,703 8,073,681 9,269,097
IPR2020-01380	PTAB	9,626,703
IPR2020-01381	PTAB	9,626,703

C. Lead and Backup Counsel

Pursuant to 37 C.F.R. §42.8(b)(3) and 42.10(a), Petitioner designates J. David Hadden, Reg. No. 40,629 as lead counsel and Saina Shamilov, Reg. No. 48,266, Brian M. Hoffman, Reg. No. 39,713, Dargaye Churnet, Reg. No. 71,288, and Eric Zhou, Reg. No. 68,842, as back-up counsel, each of Fenwick & West LLP.

D. Service Information

Petitioner consents to service by electronic mail at:

VBAssets-IPR@fenwick.com.

Petitioner's counsel may also be served by mail or hand delivery at Fenwick & West LLP, 801 California St, Mountain View, CA 94041. Petitioner's counsel may be reached by telephone at (650) 988-8500.

E. Fees

The Office is authorized to charge fees for this Petition to Deposit Account 19-2555.

Dated: June 16, 2025

FENWICK & WEST LLP

/J. David Hadden/
J. David Hadden
Reg. No. 40,629

Attorneys for Petitioner
Amazon.com Services LLC

CERTIFICATION OF WORD COUNT

The undersigned certifies pursuant to 37 C.F.R. §42.24 that the foregoing Petition for *Inter Partes* Review, excluding any table of contents, mandatory notices under 37 C.F.R. § 42.8, certificates of service or word count, or appendix of exhibits, contains 13,783 words according to the word-processing program used to prepare this document (Microsoft Word).

Dated: June 16, 2025

FENWICK & WEST LLP

/J. David Hadden/
J. David Hadden
Reg. No. 40,629

Attorneys for Petitioner
Amazon.com Services LLC

CERTIFICATE OF SERVICE ON PATENT OWNER UNDER 37 C.F.R. § 42.105

I hereby certify, pursuant to 37 C.F.R. §§ 42.6(e) and 42.105, that a complete copy of this Petition for *Inter Partes* Review including all exhibits are being served via Federal Express on June 16, 2025, upon Patent Owner by serving the correspondence address of record with the USPTO as follows:

James Gatto
Daniel Yannuzzi
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Sheppard Mullin Richter & Hampton
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Costa Mesa, CA 92626
Patent Owner's correspondence address of record for US Patent 11,087,385

Dated: June 16, 2025

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