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(54) **VENUE PRODUCT SALES AND NETWORKING**

Related U.S. Application Data

(75) Inventors: **Paul T. Breitenbach**, Wilton, CT (US); **Paul D. Signorelli**, Ridgefield, CT (US); **Igor Zhuk**, Weston, CT (US)

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(73) Assignee: **VENDMORE SYSTEMS, LLC**, Stamford, CT (US)

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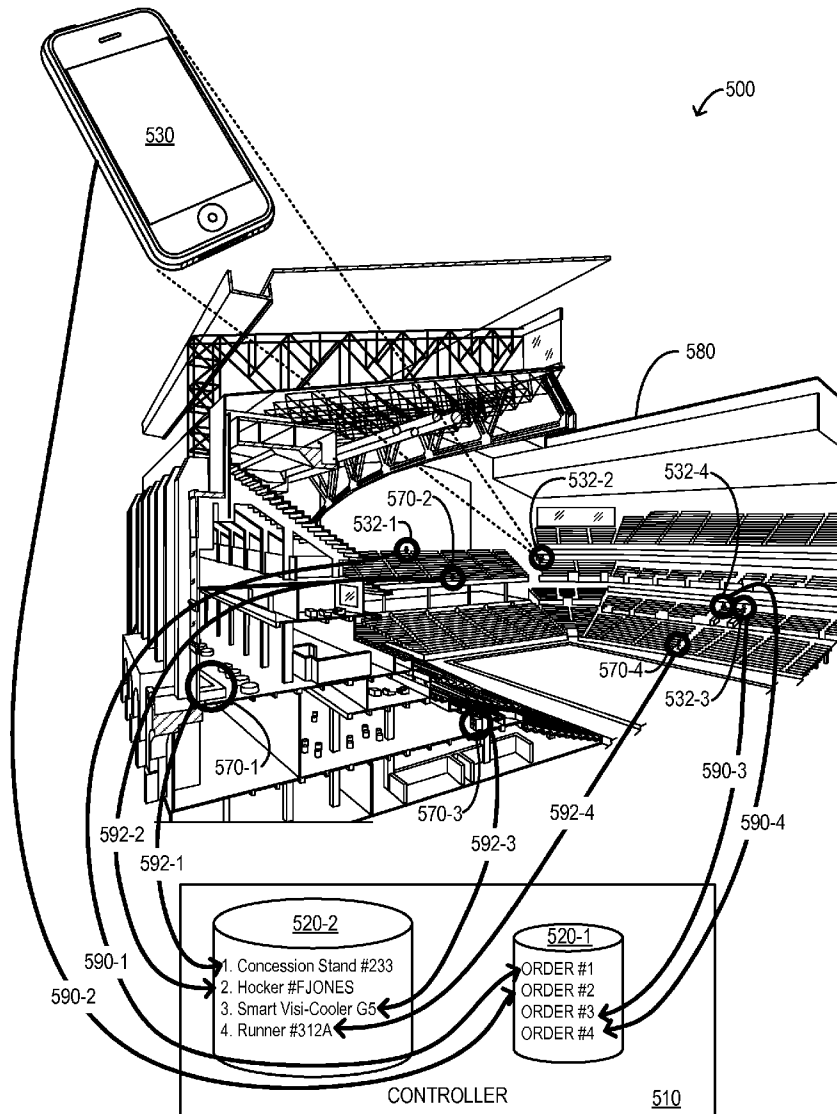
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(57) **ABSTRACT**

(22) Filed: **Jan. 11, 2011**

Systems, apparatus, interfaces, methods, and articles of manufacture for venue product sales and networking are provided.



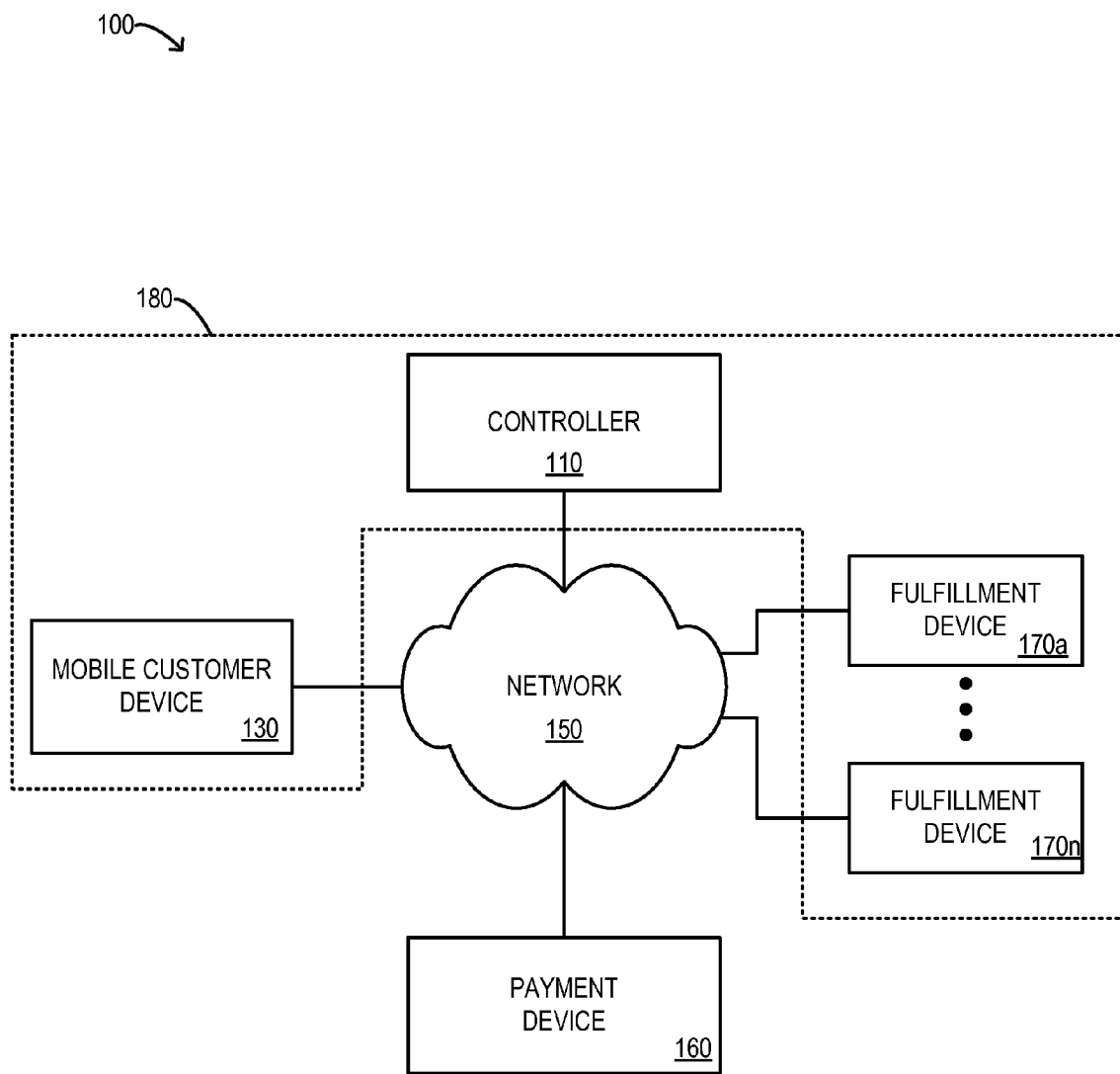


FIG. 1

200 →

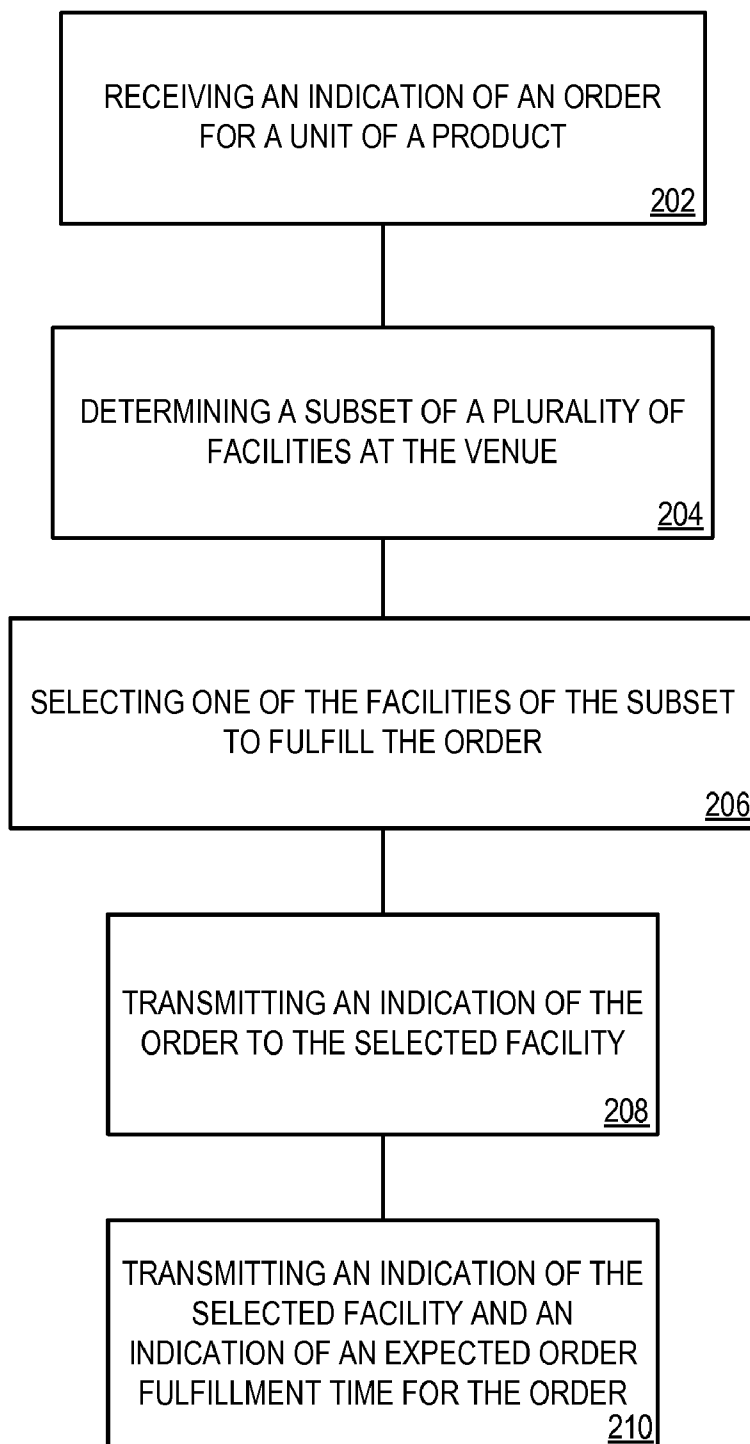


FIG. 2

300 ↘

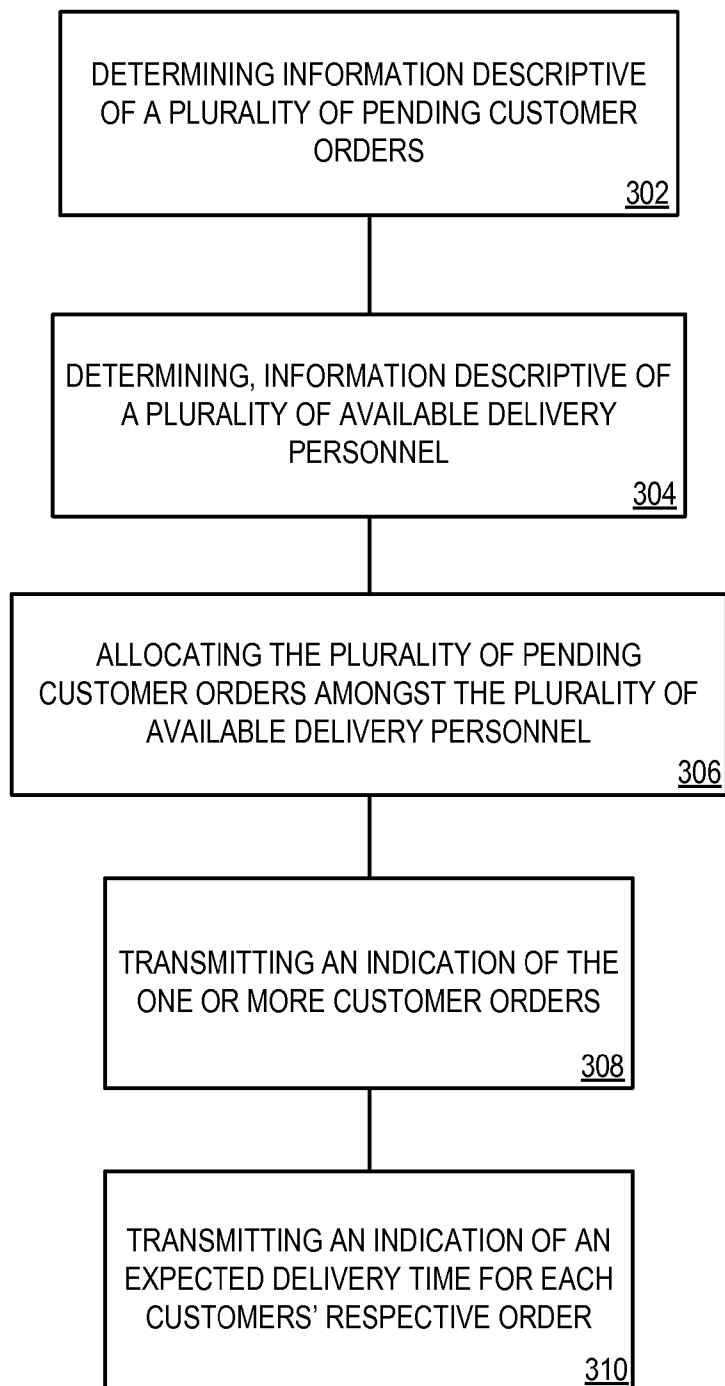


FIG. 3

410 →

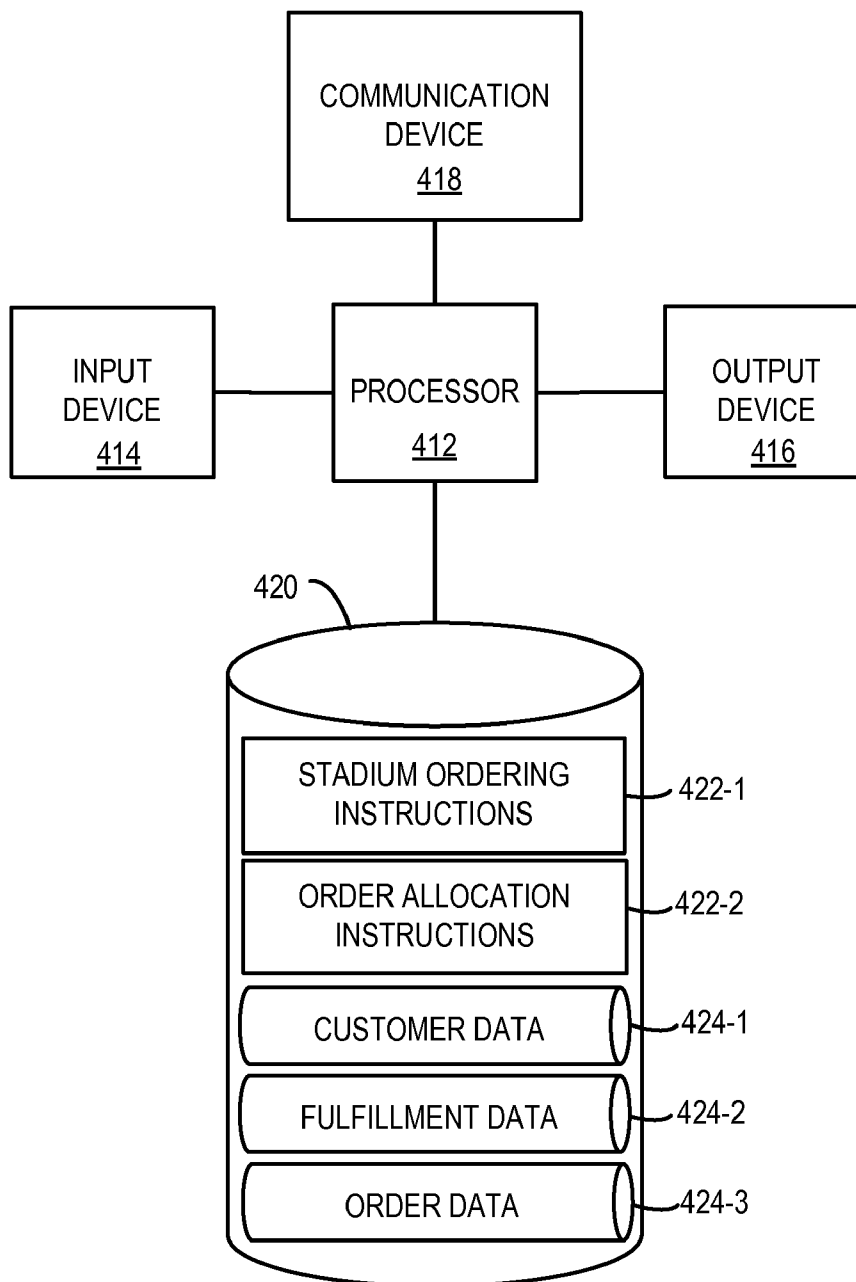


FIG. 4

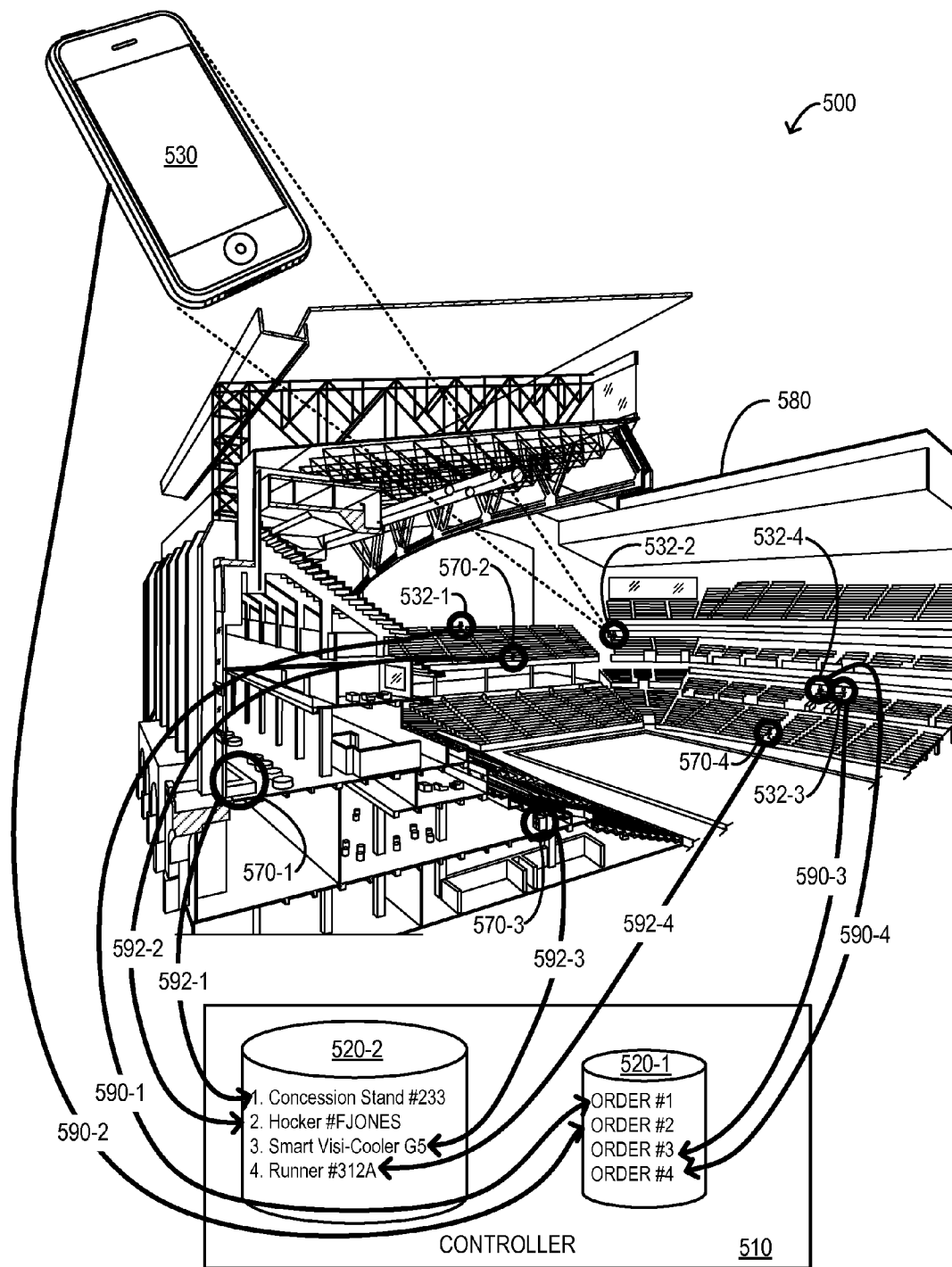


FIG. 5A

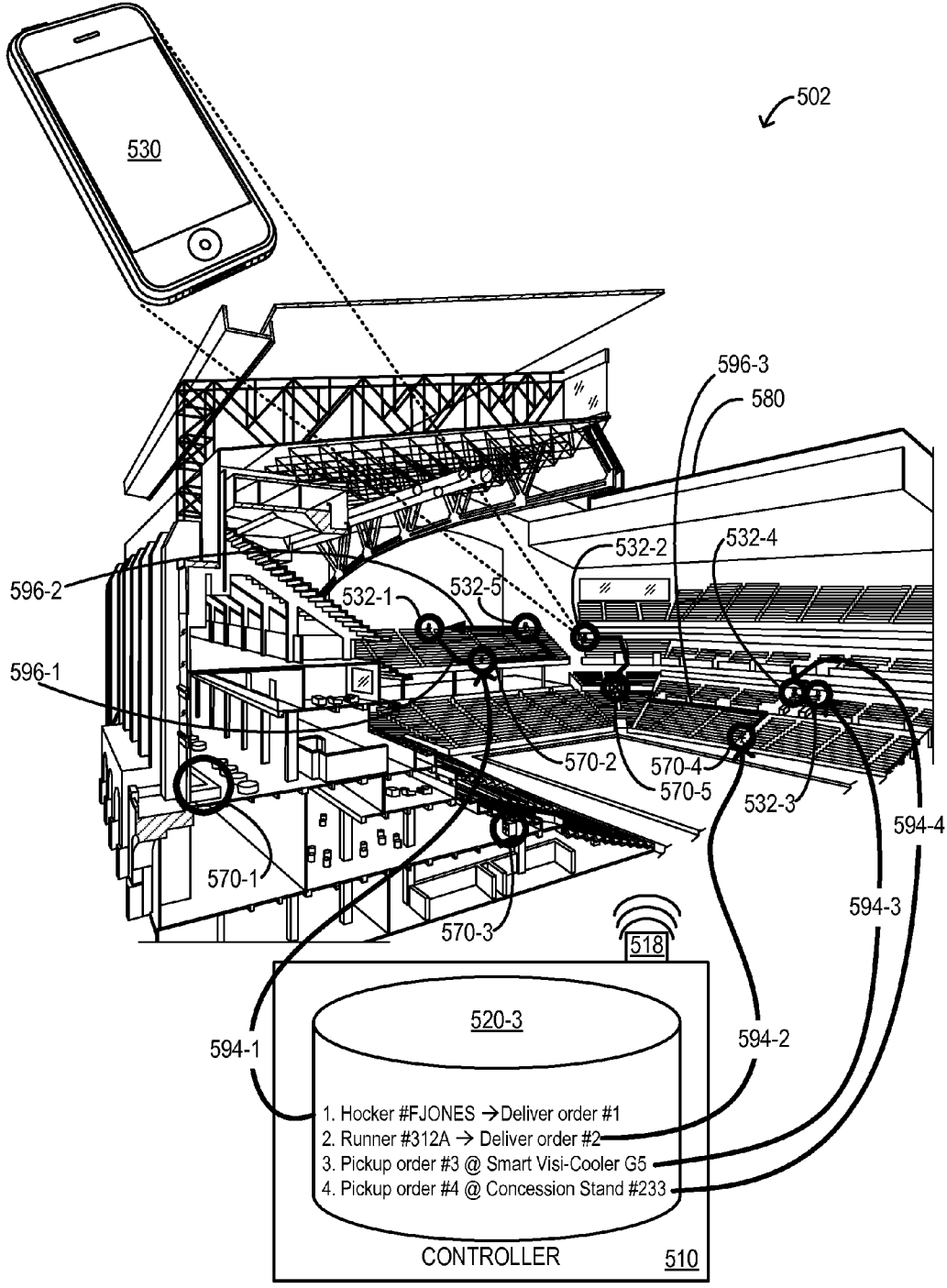


FIG. 5B

600 ↘

SIGN IN

EMAIL ADDRESS*

PASSWORD

SUBMIT

*INFORMATION USED WHEN YOU CREATED YOUR ACCOUNT

[FORGOT PASSWORD](#)

DON'T HAVE AN ACCOUNT?

CLICK TO OPEN NEW ACCOUNT

CANCEL

FIG. 6A

600 ↘

REGISTER NOW!

ENTER EMAIL ADDRESS/USER NAME
PSIGNORELLI@QUICKSTORE24.COM

RE-TYPE ENTER EMAIL ADDRESS/USER NAME
PSIGNORELLI@QUICKSTORE24.COM

PASSWORD
●●●●●●●●

RE-TYPE PASSWORD
●●●●●●●●

NEXT>>

ENTER EMAIL ADDRESS AND PASSWORD
YOU WILL USE TO ACCESS ACCOUNT.

CANCEL

FIG. 6B

600 ↘

REGISTER NOW!

MOBILE PHONE NUMBER

2037707885

<< PREV

NEXT >>

PLEASE ENTER THE MOBILE NUMBER ASSOCIATED WITH YOUR ACCOUNT. IF YOU ARE SIGNING UP FROM YOUR PHONE USE YOUR MOBILE PHONE NUMBER.

CANCEL

FIG. 6C

600 ↘

ENTER NAME

NAME

PAUL SIGNORELLI

<< PREV

NEXT >>

SO WE CAN IDENTIFY YOU WHEN YOU RECEIVE YOUR ORDER.

CANCEL

FIG. 6D

600 ↘

ENTER ACCOUNT INFO

CREDIT CARD	CREDIT/DEBIT CARD #
MASTERCARD ▾	<input type="text"/>
CSC	EX. MONTH EX. YEAR
<input type="text"/>	<input type="text"/> / <input type="text"/>
NAME ON CARD	(XX) (XX)
<input type="text"/>	
BILLING ZIP CODE	
<input type="text"/>	
<< PREV	NEXT >>

ENTER THE CREDIT CARD YOU WISH TO
USE FOR YOUR ACCOUNT.

CANCEL

FIG. 6E

600 ↘

The image shows a user interface for entering account information. The main form is titled "ENTER ACCOUNT INFO" and contains several input fields: "CREDIT CARD" (a dropdown menu currently showing "MASTERCARD"), "CREDIT/DEBIT CARD #" (a text field with "XXXX XXXX XXXX"), "CSC" (a text field with "***"), "EX. MONTH" (a text field with "**"), "EX. YEAR" (a text field with "**"), "NAME ON CARD" (a text field with "PAIL"), and "BILLING ZIP CODE" (a text field). Below the form are three buttons: "PREVIOUS", "NEXT", and "DONE". A separate panel is open below the form, titled "SELECT", and lists four options: "VISA", "MASTERCARD" (which is selected with a checkmark), "AMEX", and "DISCOVER".

FIG. 6F

600 ↘

ALMOST DONE!

PRESS SUBMIT TO CREATE YOUR ACCOUNT!

READ TERMS & CONDITIONS

READ PRIVACY POLICY

CHECK TO ACCEPT THAT I HAVE READ THE TERMS & CONDITIONS

<< PREV SUBMIT

FIG. 6G

600 ↘

ALMOST DONE!

PROCESSING....

READ TERMS & CONDITIONS

READ PRIVACY POLICY

CHECK TO ACCEPT THAT I HAVE READ THE TERMS & CONDITIONS

<< PREV SUBMIT

FIG. 6H

600 ↘

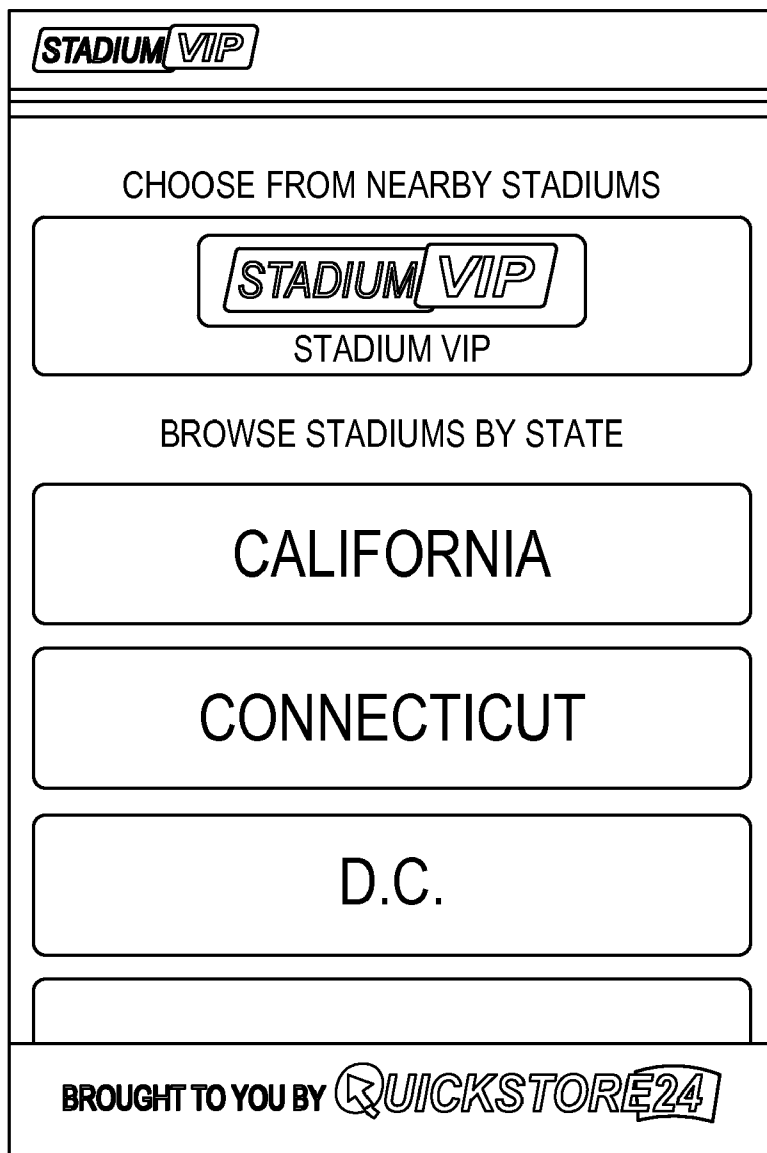


FIG. 6I

600 ↘

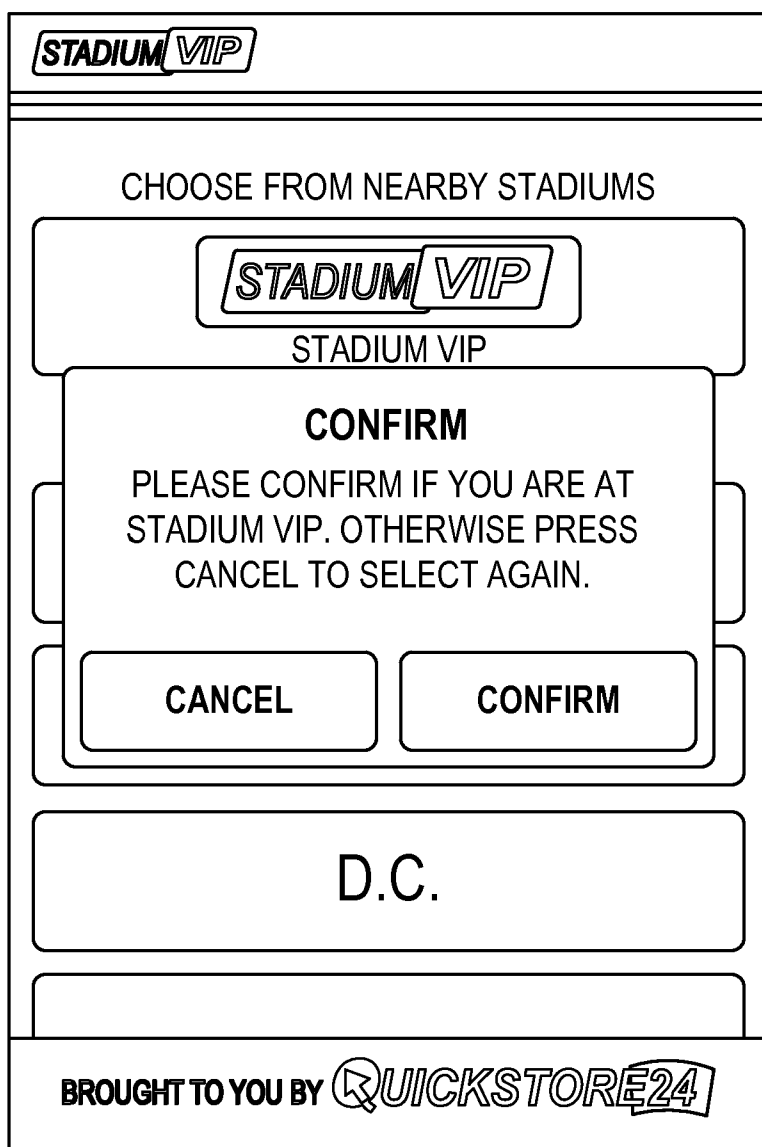


FIG. 6J

600 ↘

STADIUM VIP BACK

SECTION (X)

ROW (X)

SEAT

1 2 3 4 5 6 7 8 9 0

- / : ; () \$ & @ "

#+= . , ? ! ' (X)

ABC SPACE NEXT

FIG. 6K

600 ↘

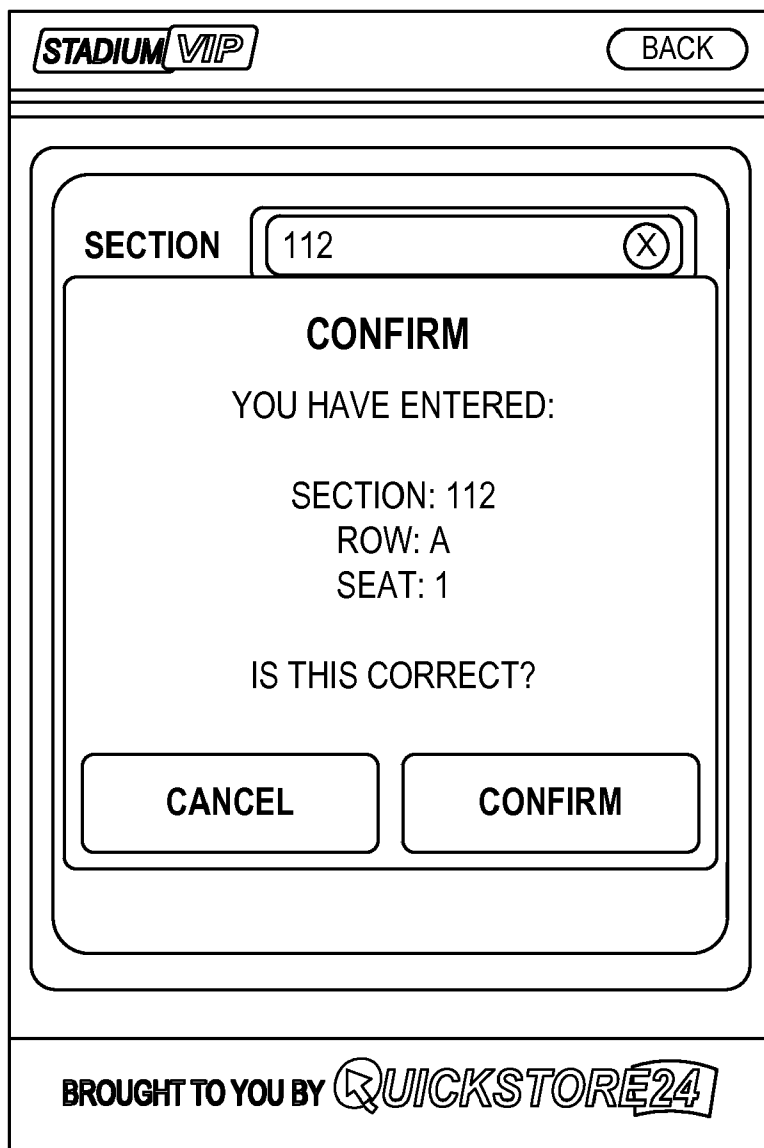


FIG. 6L

600 ↘

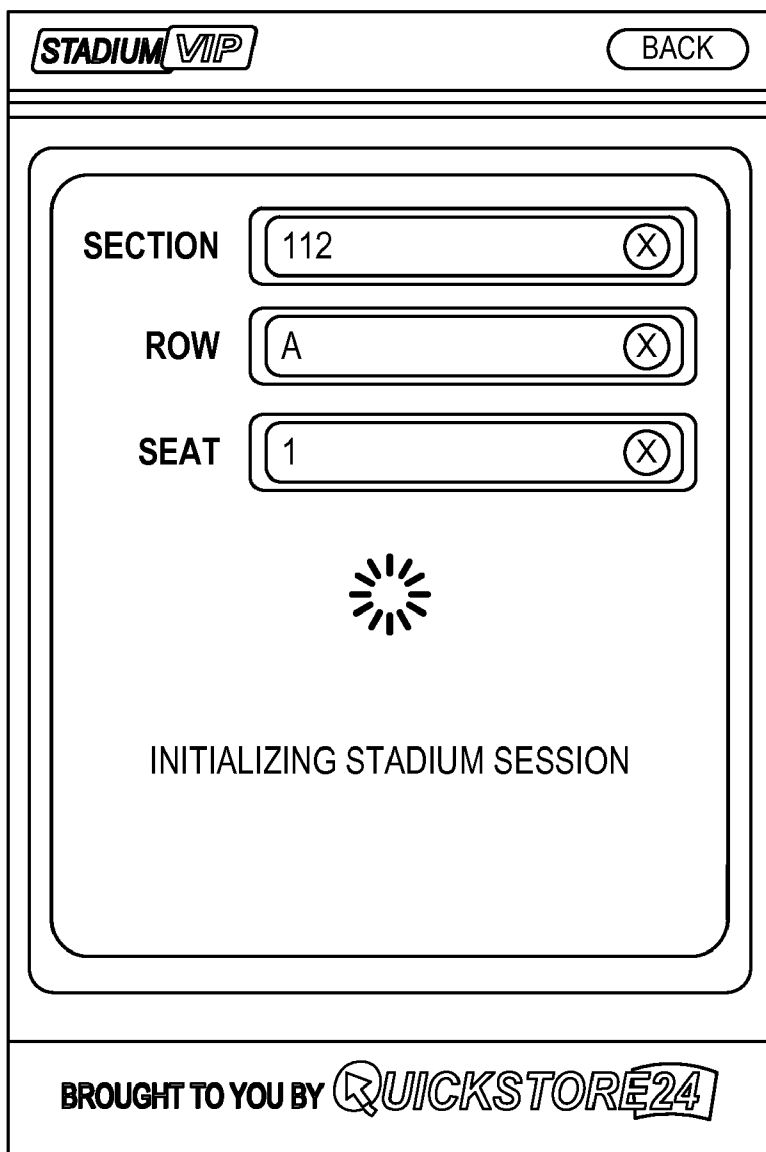


FIG. 6M

600 ↘



FIG. 6N

600

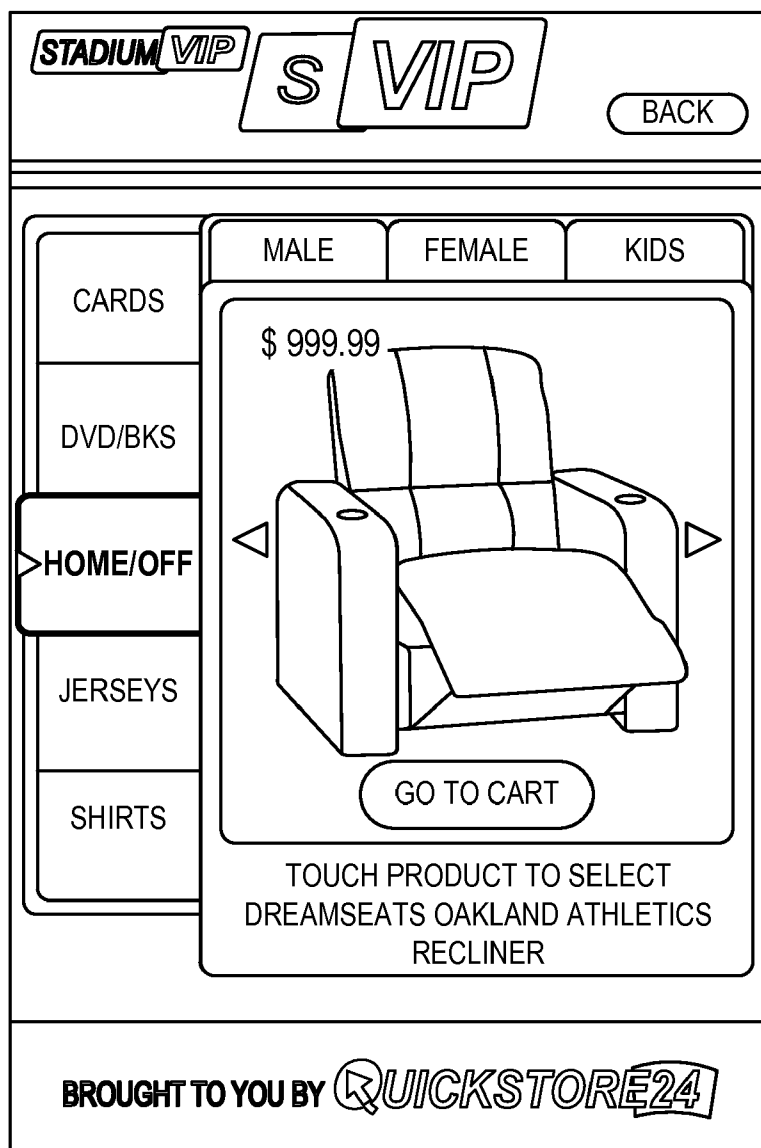


FIG. 60

600 ↘



FIG. 6P

600 ↘

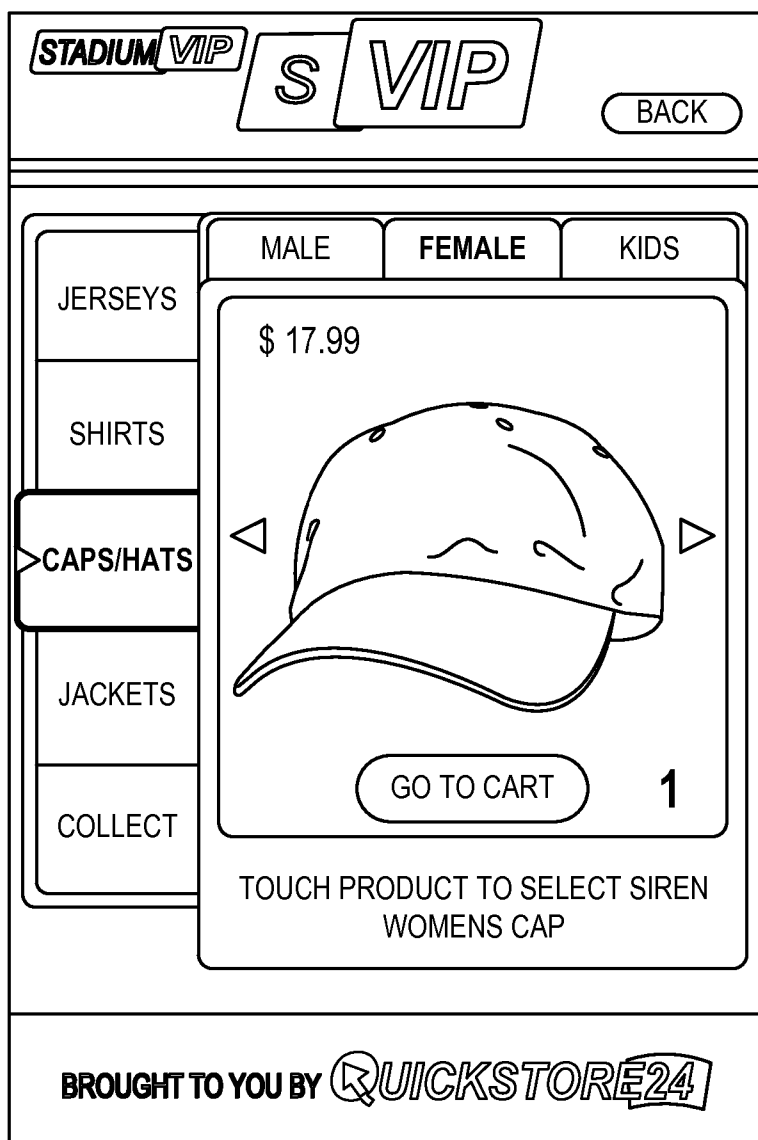


FIG. 6Q

600 ↘

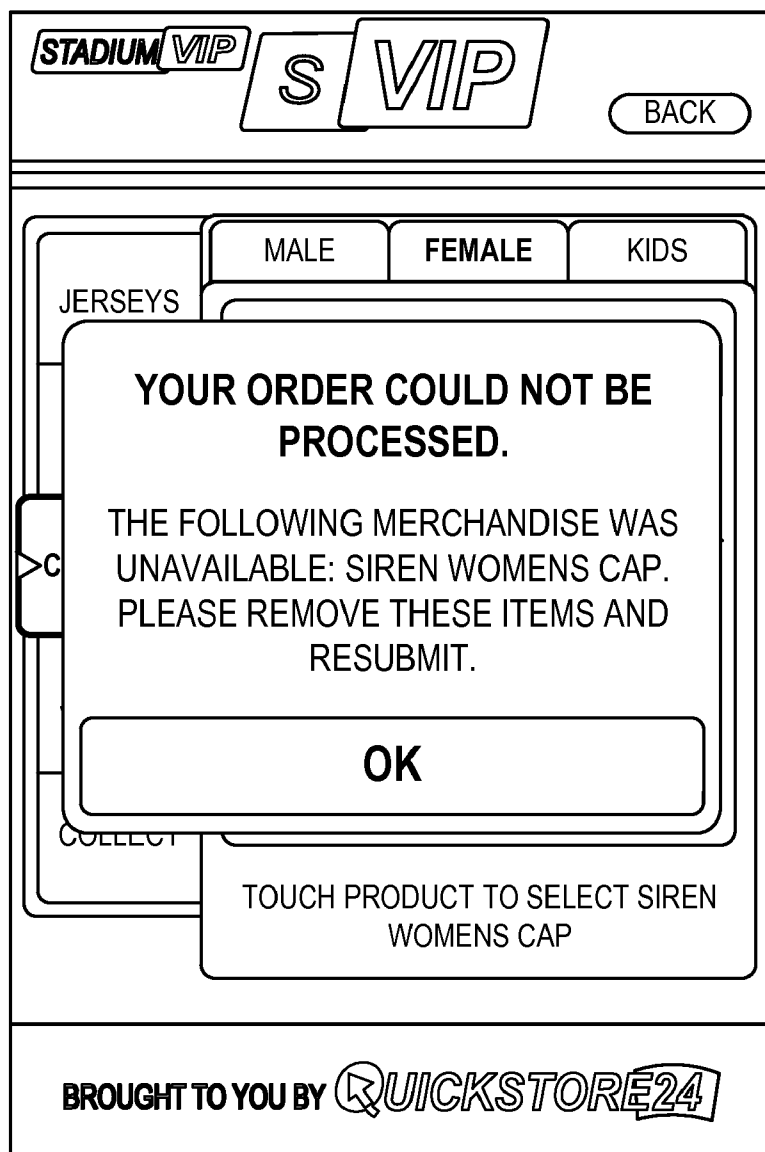


FIG. 6R

600 →



FIG. 6S

600 ↘

STADIUM VIP

BACK

SELECT YOUR SIZE

SMALL

MEDIUM

LARGE

X-LARGE

XX-LARGE

XXX-LARGE

FIG. 6T

600 ↘



FIG. 6U

600 ↘

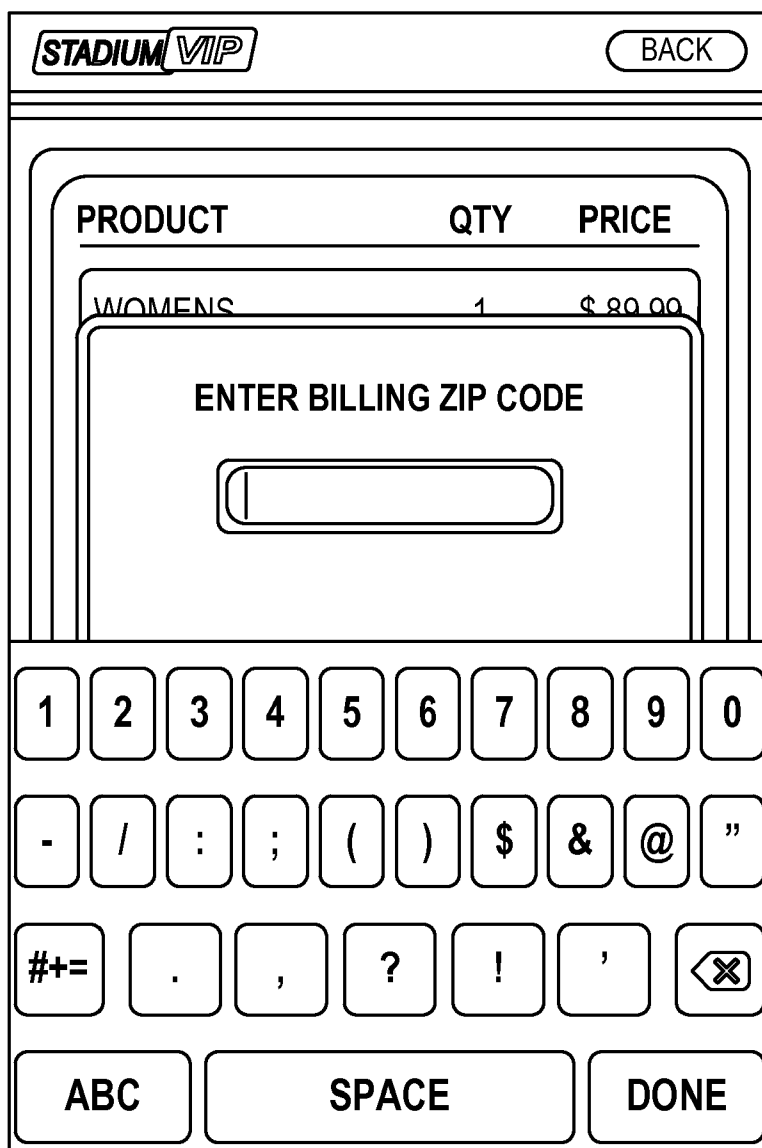


FIG. 6V

600 ↘



FIG. 6W

600 →

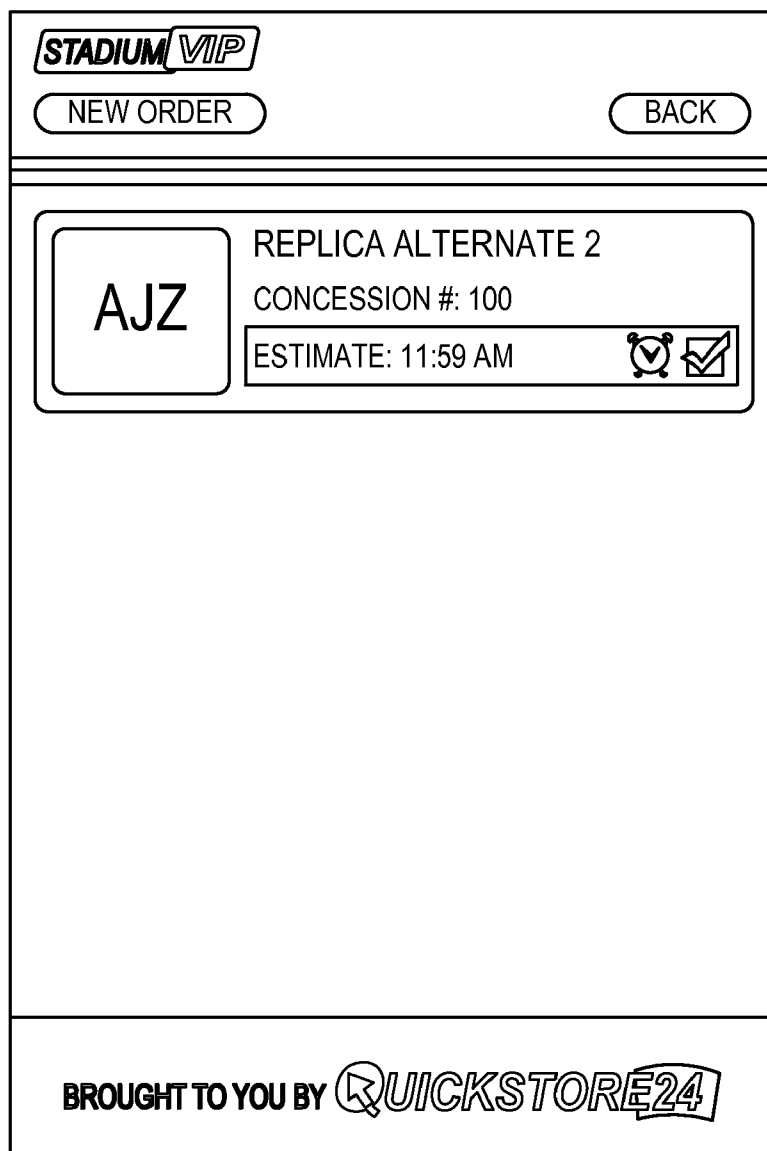


FIG. 6X

600 →

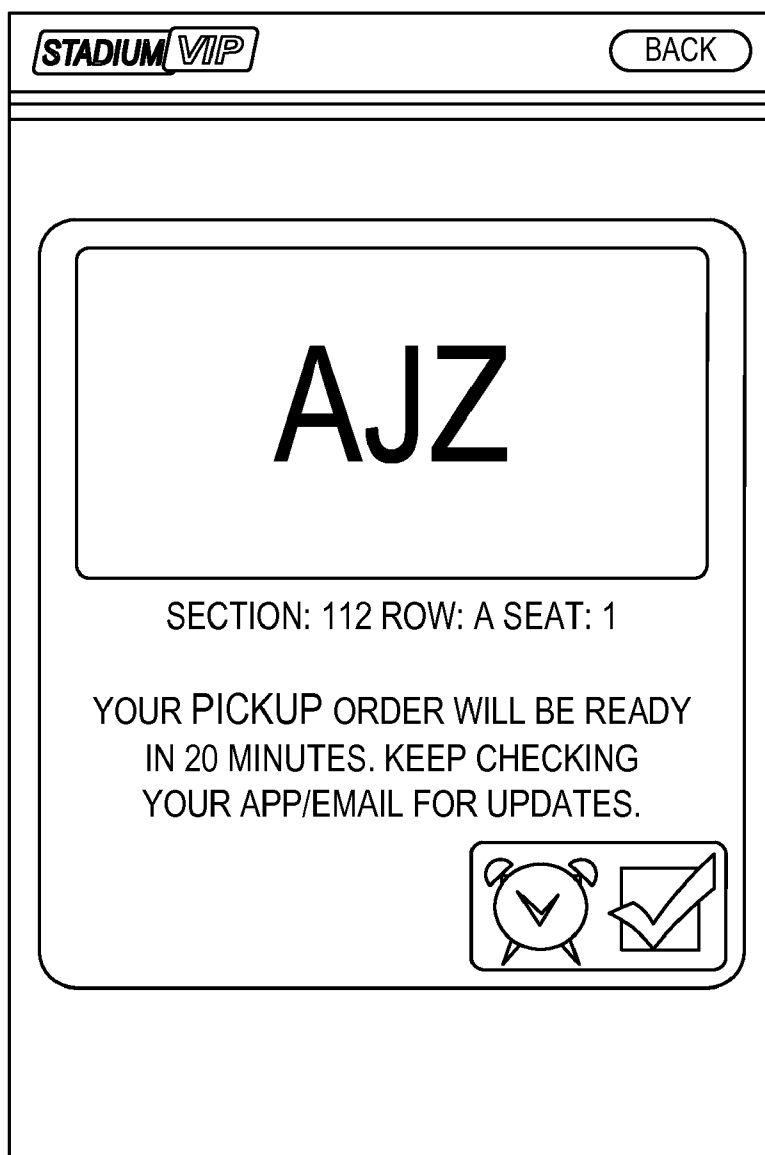


FIG. 6Y

600 ↘

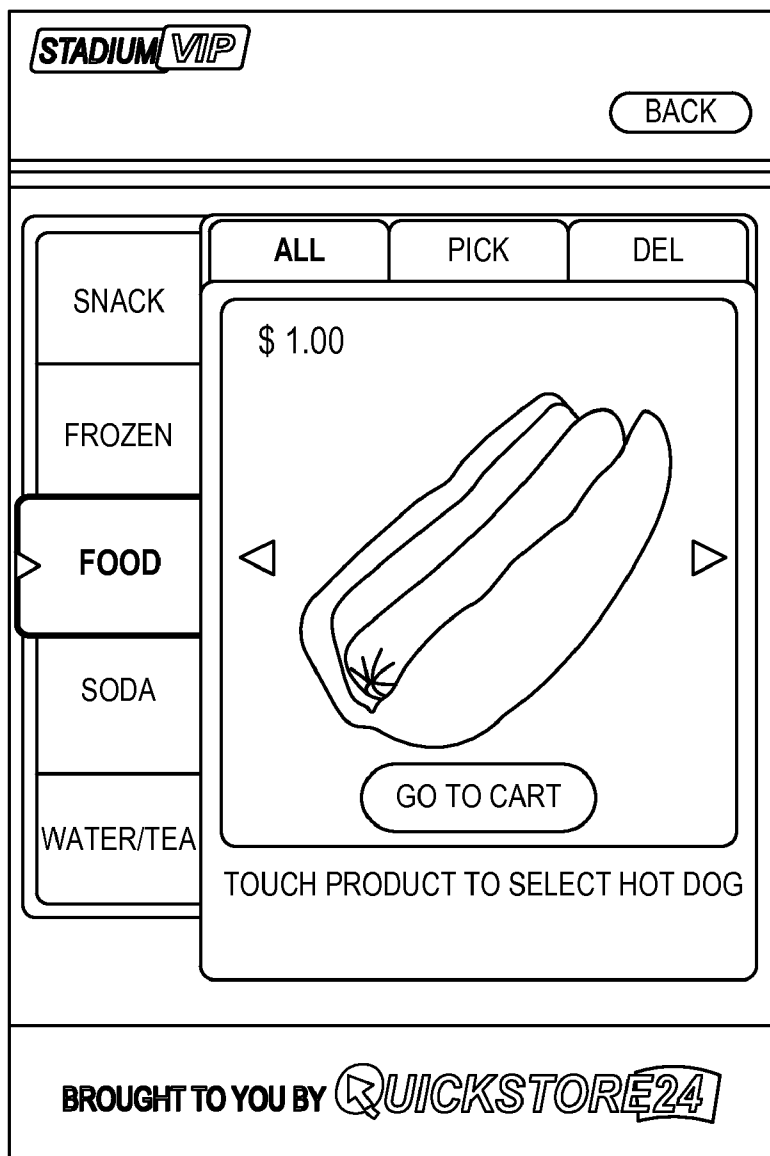


FIG. 6Z

600 ↘

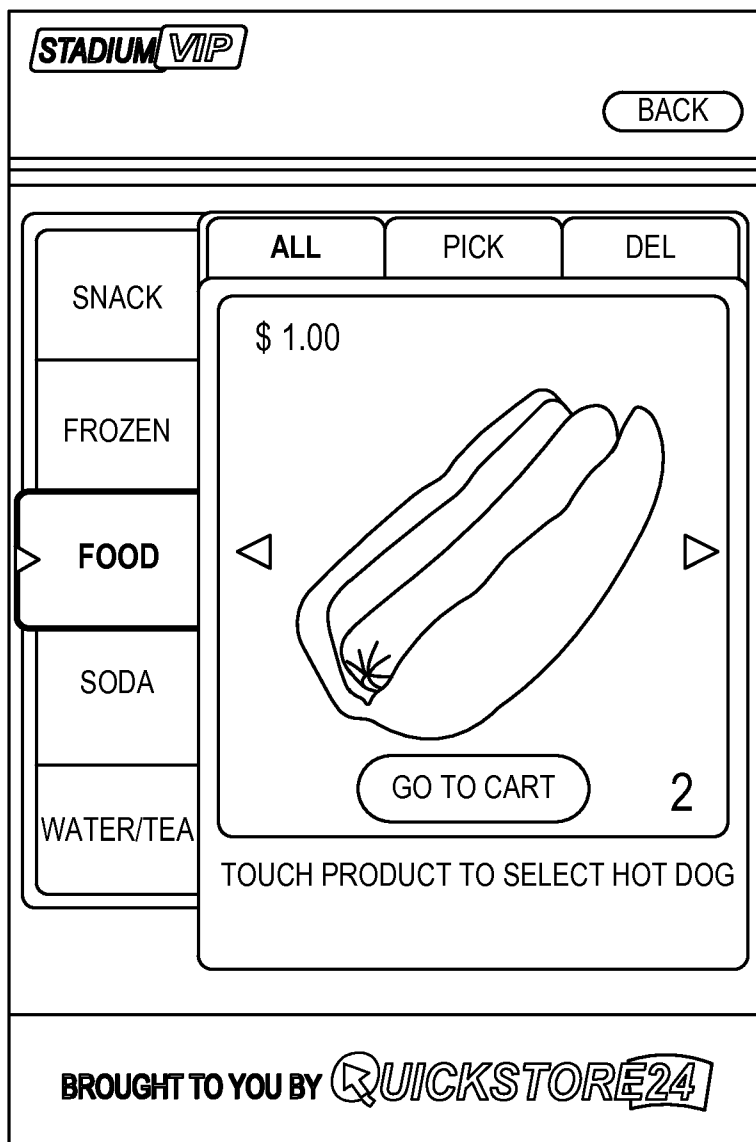


FIG. 6AA

600 ↘

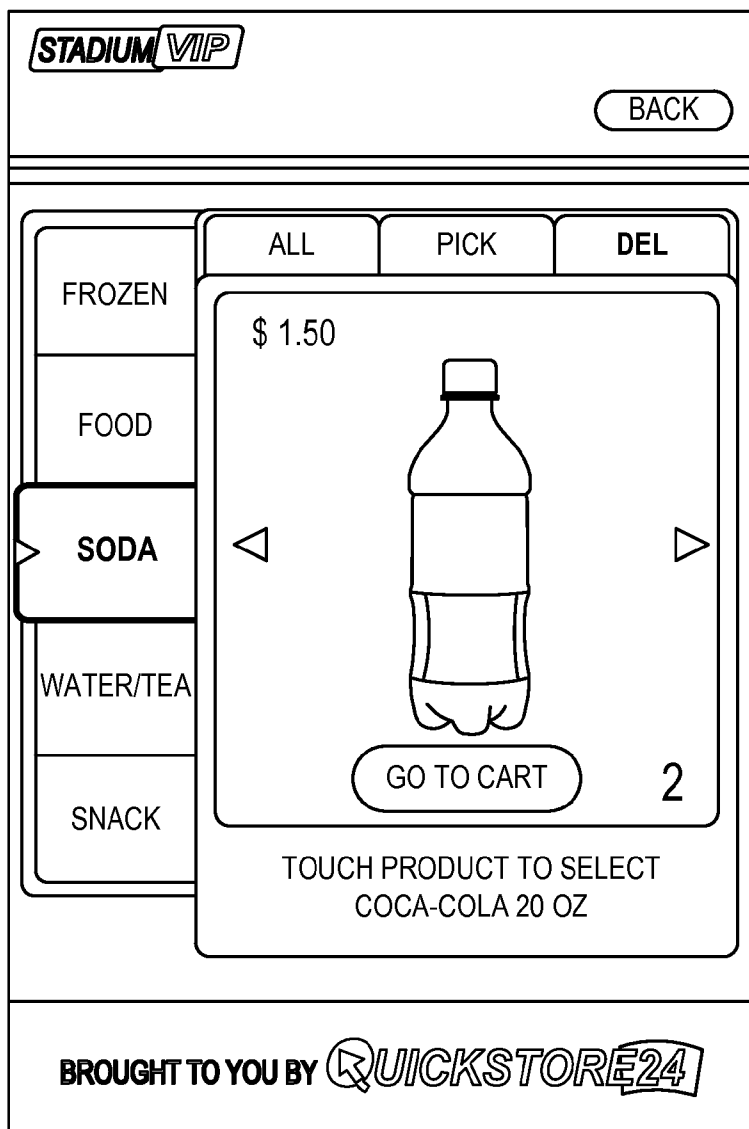


FIG. 6BB

600 ↘



600 ↘



FIG. 6DD

600 ↘

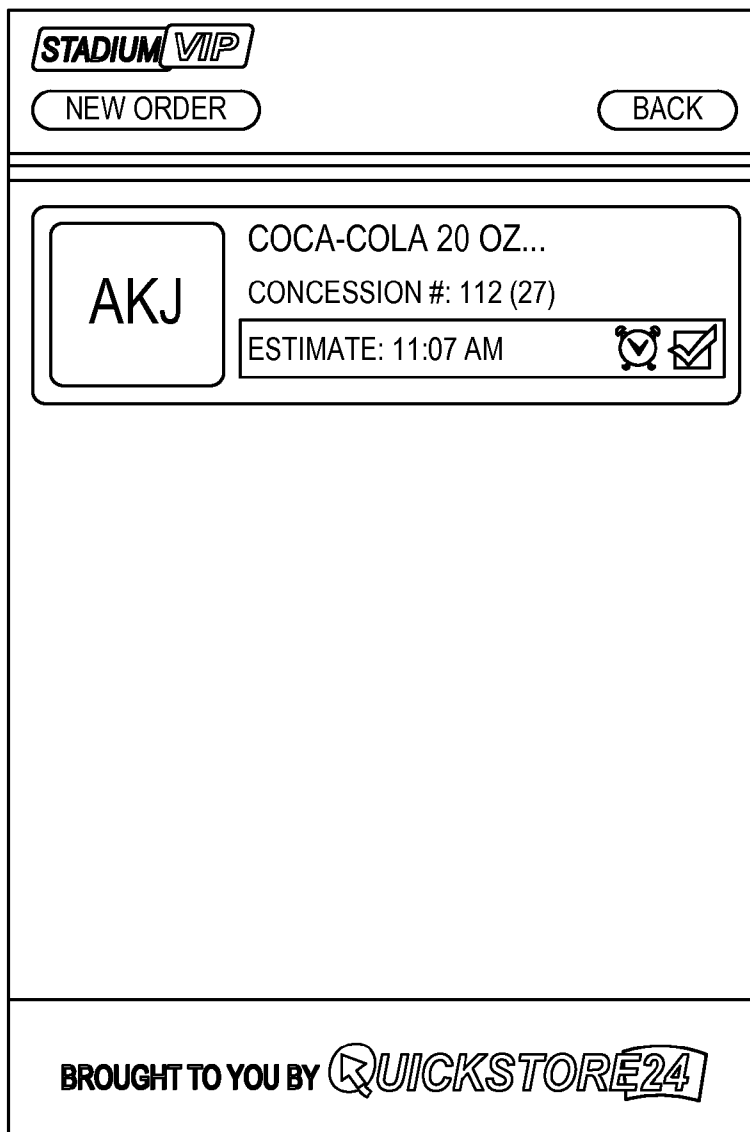


FIG. 6EE

600 →

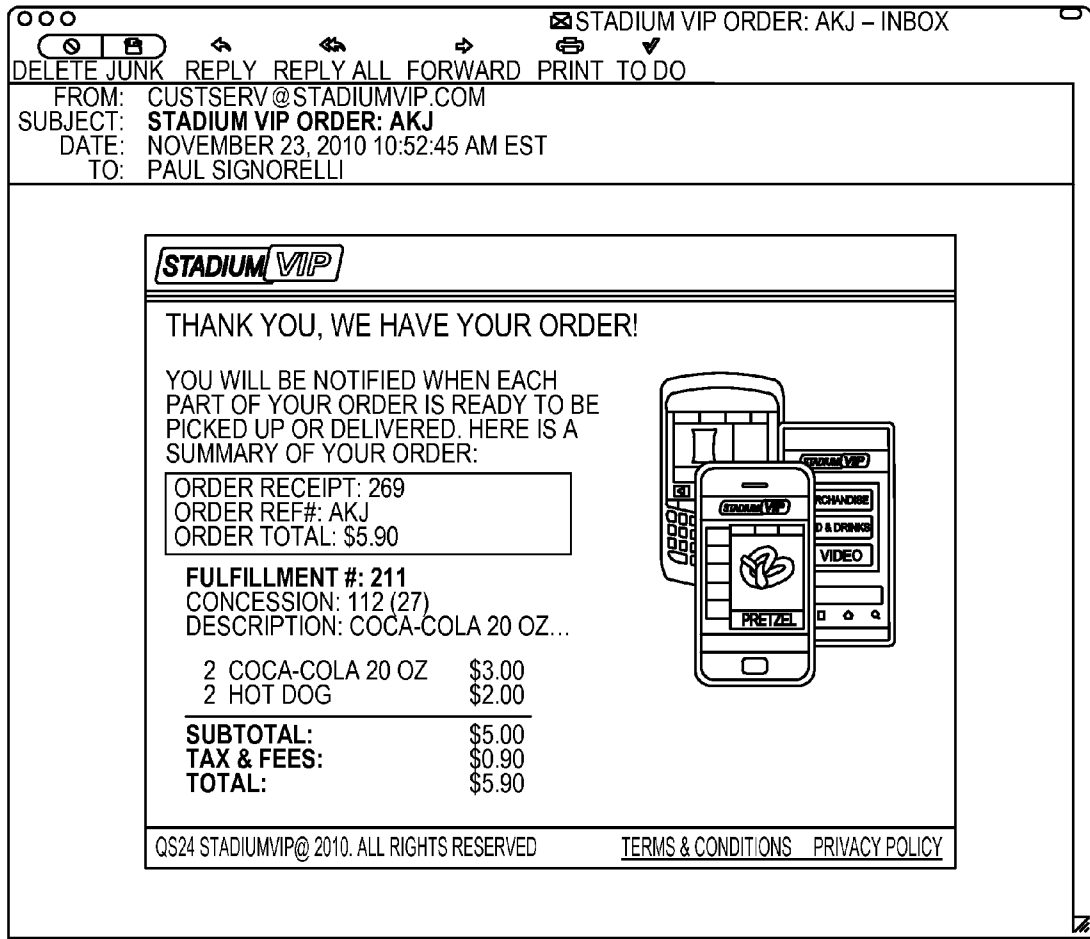


FIG. 6FF

600 ↘

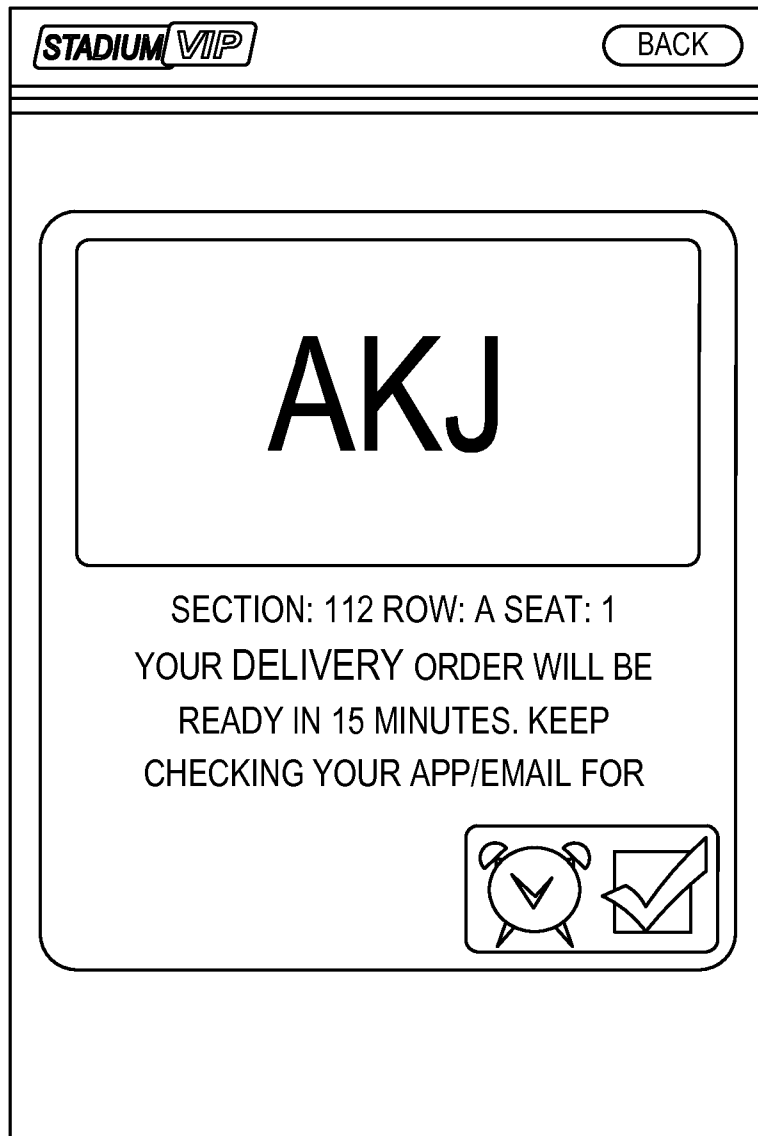


FIG. 6GG

600 ↘



FIG. 6HH

600 ↘

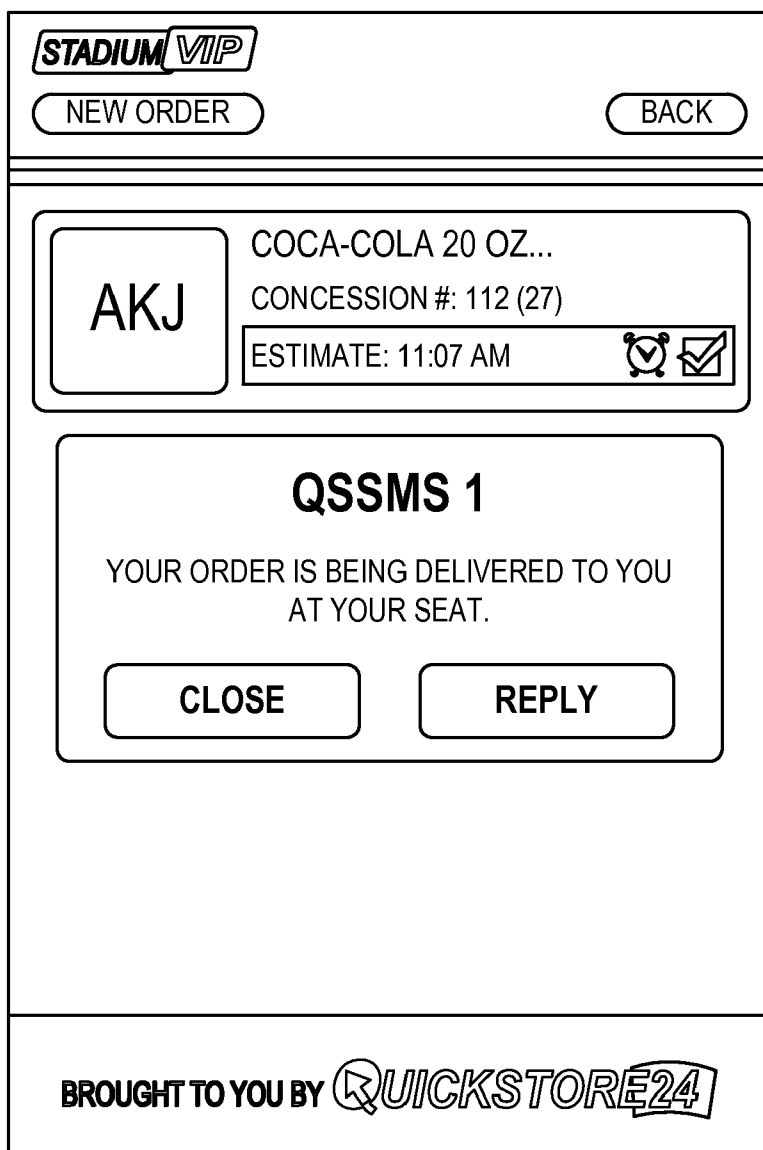


FIG. 6II

600

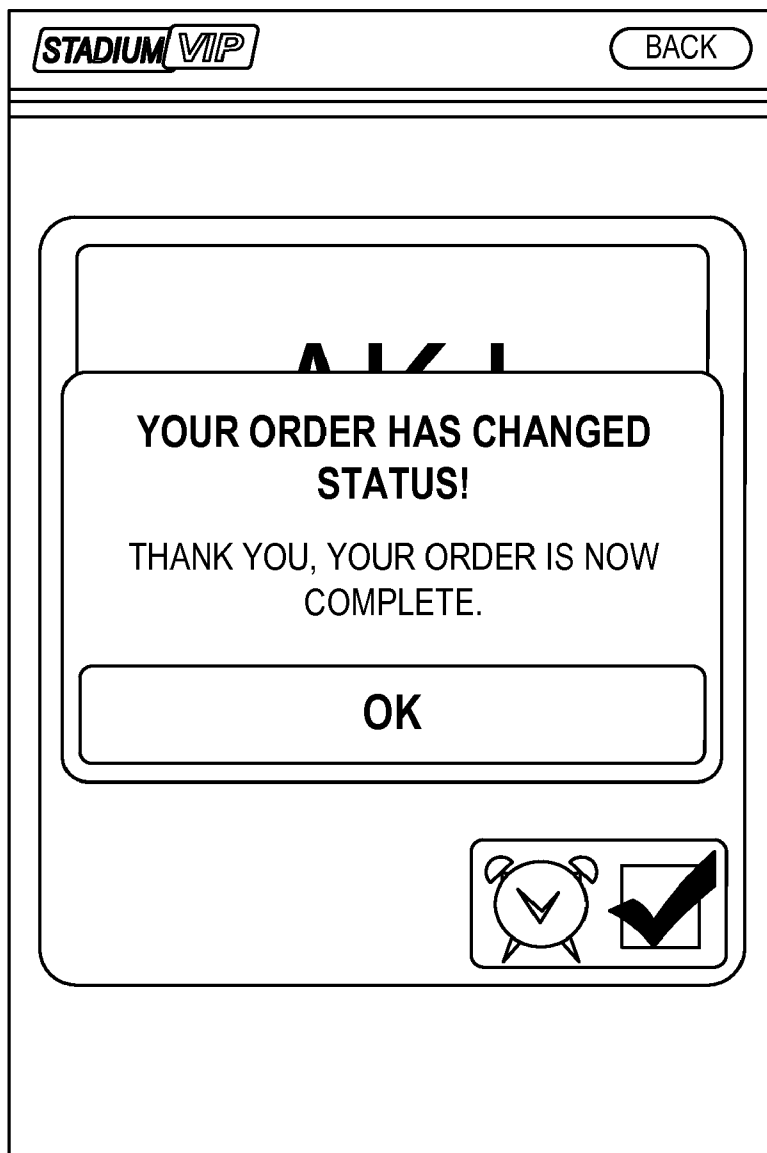


FIG. 6JJ

700 →

LOGIN/LOGOUT	CONCESSION MANAGEMENT	REPORTS	STADIUM MANAGEMENT	CONCESSION FULFILLMENT	PRODUCT MANAGEMENT	USER ADMINISTRATION
--------------	-----------------------	---------	--------------------	------------------------	--------------------	---------------------

CREATE CONCESSION USER:

USERNAME

PASSWORD

CONFIRMPASSWORD

EMAIL

CHOOSE A STADIUM

CONCESSION ROLES

- STADIUM EXECUTIVE MANAGER
- STADIUM ADMINISTRATOR
- CONCOURSE MANAGER
- CONCESSION STAND MANAGER
- CONCESSION FULFILLMENT RESOURCE
- ADMINISTRATION EXECUTIVE
- AUTHORIZED ADMIN
- USER ADMINISTRATION
- BATCH FULFILLMENT MANAGER

FIG. 7A

700 →

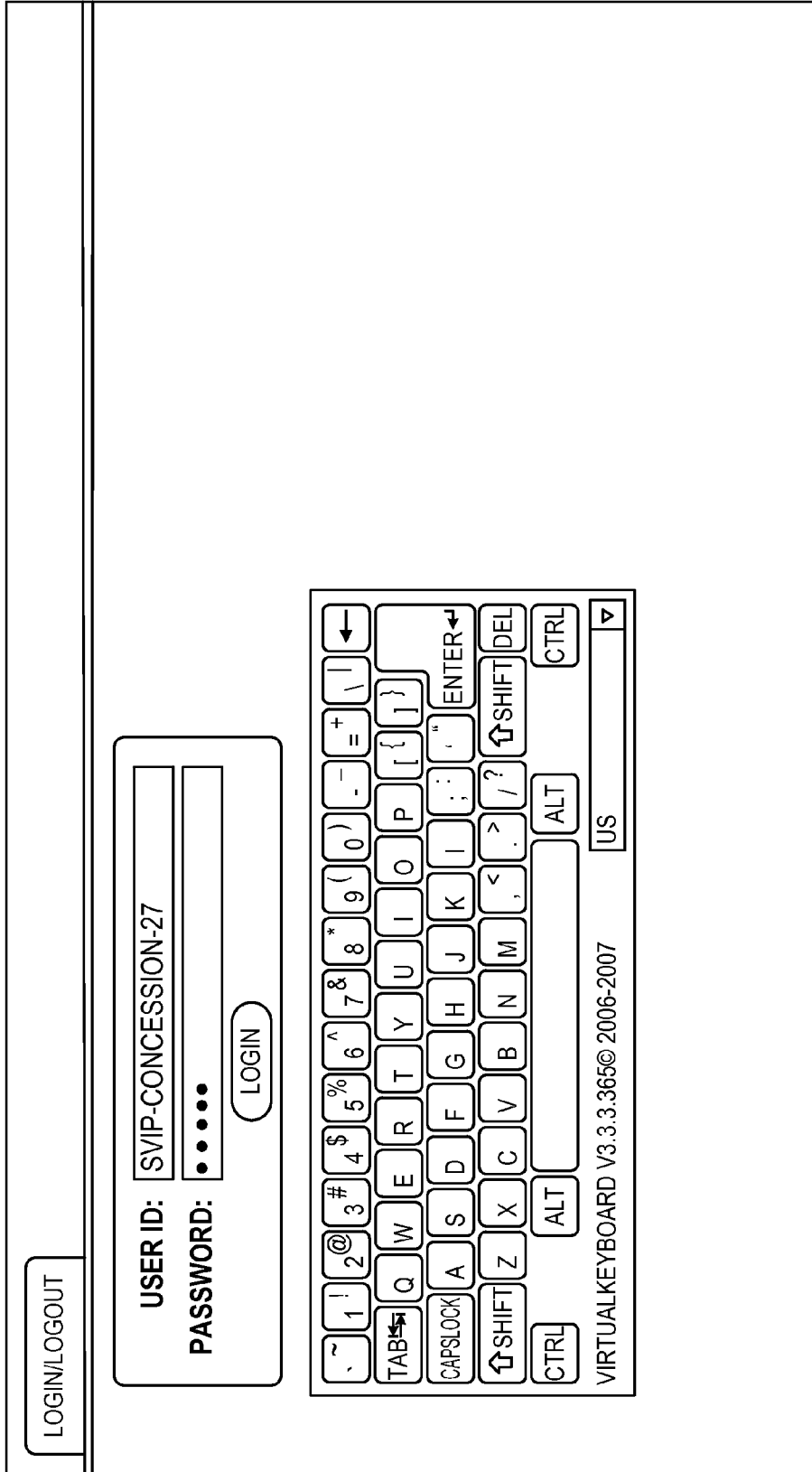


FIG. 7B

700 →

LOGIN/LOGOUT	CONCESSION MANAGEMENT	REPORTS	STADIUM MANAGEMENT	CONCESSION FULFILLMENT	PRODUCT MANAGEMENT	USER ADMINISTRATION
STADIUM INFORMATION						
MLB: YANKEES V. 658						
STADIUM EVENT ID: 11		STADIUM EVENT STATUS: OPEN				
DATE: 12/31/1969		TIME: 8:00 PM				
<input type="button" value="CLOSE"/>						
ALCOHOL POLICY						
<input checked="" type="radio"/> 2 PER ORDER						
<input type="radio"/> 1 PER ORDER						
<input type="radio"/> 0 PER ORDER						
<input type="button" value="UPDATE POLICY"/>						

FIG. 7C

700 →

LOGIN/LOGOUT	CONCESSION MANAGEMENT	REPORTS	STADIUM MANAGEMENT	CONCESSION FULFILLMENT	PRODUCT MANAGEMENT	USER ADMINISTRATION
--------------	-----------------------	---------	--------------------	------------------------	--------------------	---------------------

STADIUM INFORMATION

MLB: YANKEES V. 658

STADIUM EVENT ID: 11 **STADIUM EVENT STATUS: OPEN**
DATE: 12/31/1969 **TIME: 8:00 PM**

CONCESSION INFORMATION

CONCESSION STAND ID: 10 **CONCESSION STATUS: OPEN**
(GRAB N GO PRODUCTS FOR PREM SEATING AT SECTION 112)

PRODUCT INFORMATION:

1 PEPSI 20 OZ 2 DIET PEPSI 20 OZ 3 AQUAFINA 20 OZ

4 GATORADE ORANGE 20 OZ 5 MOUNTAIN DEW 20 OZ 6 DIET MOUNTAIN DEW 20 OZ

7 SOBE LIFEWATER ORANGE TANGERINE 8 SOBE LIFEWATER STRAWBERRY KIWI 9 SOBE POWER FRUIT PUNCH

10 FRAPPUCINO MOCHA 11 CHEETOS 12 DORITOS

FIG. 7D

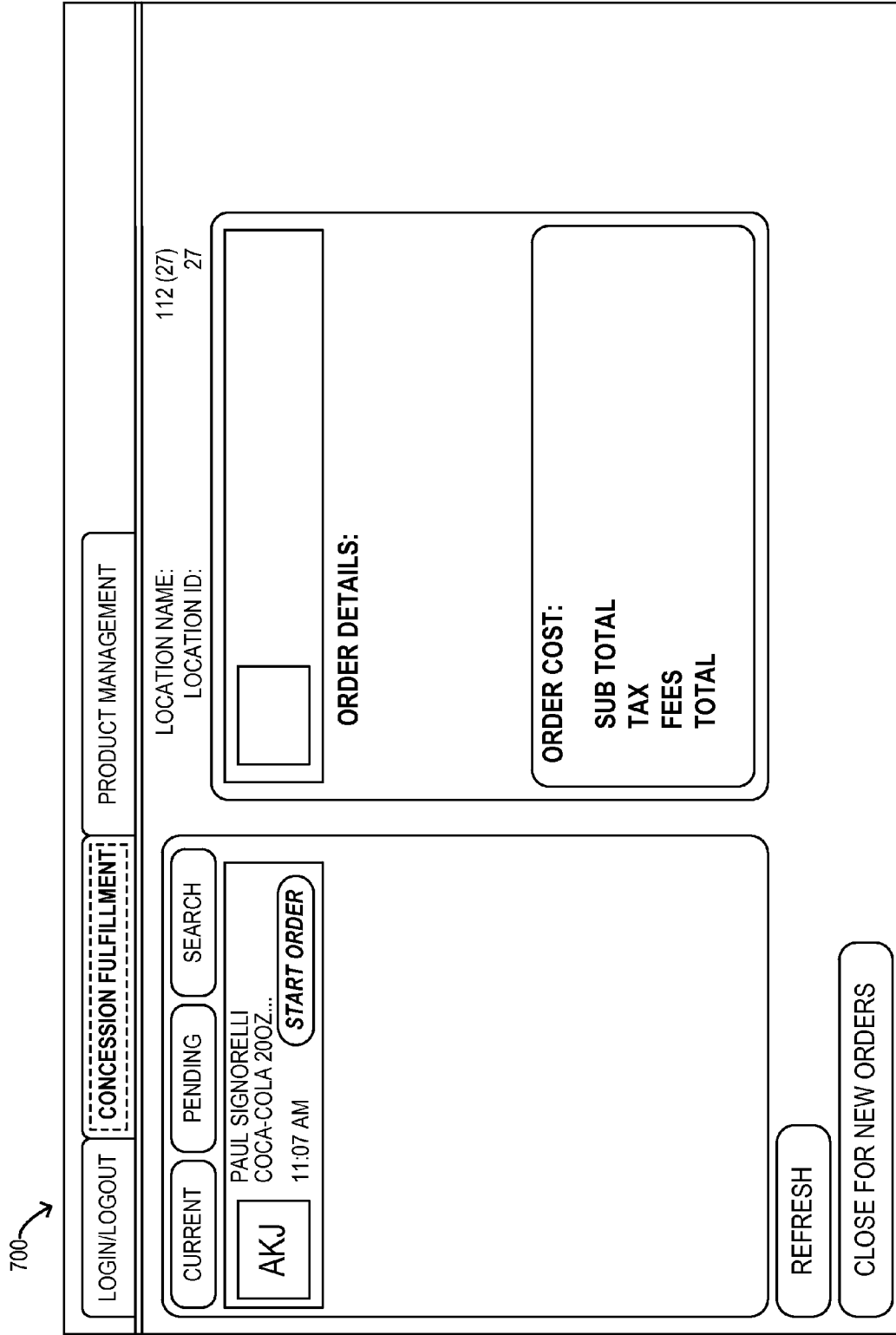


FIG. 7E

700

LOGIN/LOGOUT	CONCESSION FULFILLMENT	PRODUCT MANAGEMENT
CURRENT	PENDING	SEARCH
AKJ	PAUL SIGNORELLI COCA-COLA 200Z... 11:07 AM	PROGRESS
		LOCATION NAME: 112 (27) LOCATION ID: 27
AKJ	COCA-COLA 200Z... \$5.90	MODIFY ORDER
	ORDER DETAILS: 23 HOT DOG 2 31 COCA-COLA 20 OZ 2	
	ORDER COST: SUB TOTAL \$5.00 TAX \$0.40 FEES \$0.50 TOTAL \$5.90	
REFRESH	PRINT	CANCEL
CLOSE FOR NEW ORDERS		READY

FIG. 7F

700

LOGIN/LOGOUT	CONCESSION FULFILLMENT	PRODUCT MANAGEMENT
CURRENT	PENDING	SEARCH
AKJ	PAUL SIGNORELLI COCA-COLA 200Z... 11:07 AM	READY!
		112 (27) 27
		LOCATION NAME: LOCATION ID:
		AKJ \$5.90 COCA-COLA 200Z... MODIFY ORDER
		ORDER DETAILS: 23 HOT DOG 2 31 COCA-COLA 20 OZ 2
		ORDER COST: SUB TOTAL \$5.00 TAX \$0.40 FEES \$0.50 TOTAL \$5.90
	REFRESH	PRINT
	CLOSE FOR NEW ORDERS	CANCEL
		CHECKOUT
		HOLD

FIG. 7G

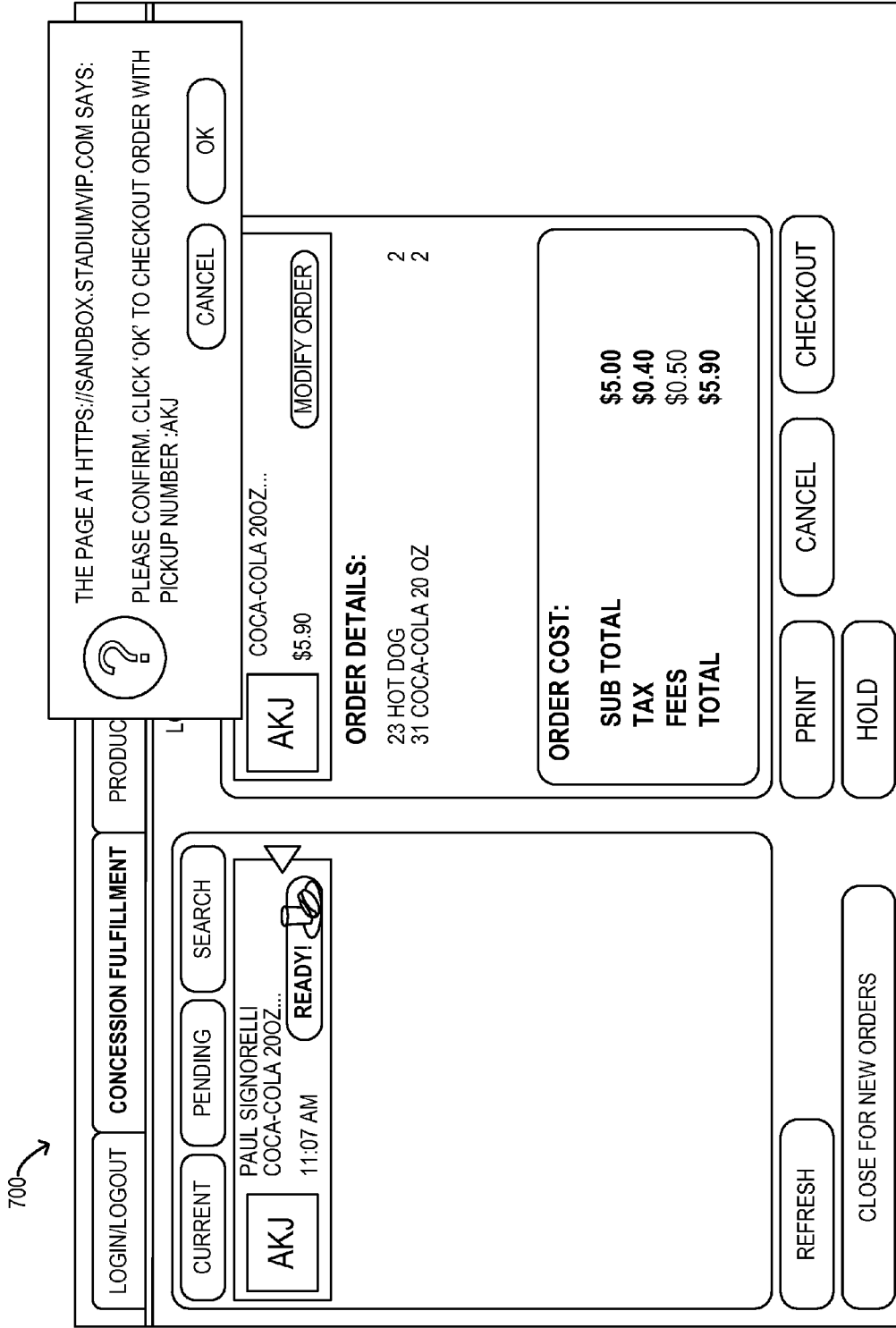


FIG. 7H

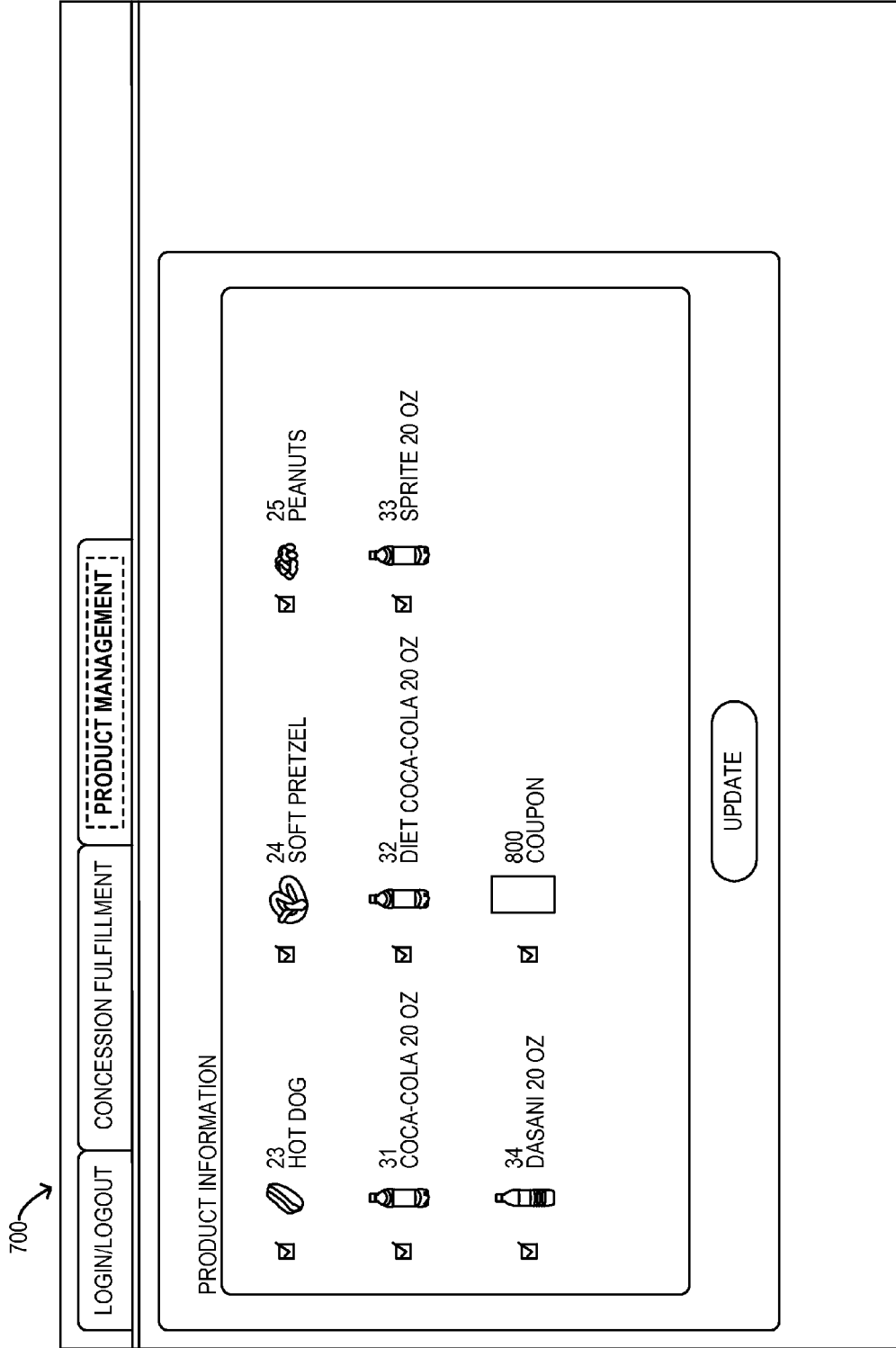


FIG. 71

700

LOGIN/LOGOUT		CONCESSION FULFILLMENT		PRODUCT MANAGEMENT	
PRODUCT INFORMATION					
<input checked="" type="checkbox"/>	310 AUTHENTIC HOME JERSEY	<input checked="" type="checkbox"/>	311 REPLICA ALTERNATE 2 JERSEY	<input checked="" type="checkbox"/>	312 AUTHENTIC 1976 ROLLIE FINGERS ROAD JERSEY BY MITCHELL AND NESS
<input checked="" type="checkbox"/>	313 WOMENS PERSONALIZED REPLICA JERSEY BY MAJESTIC ATHLETIC	<input checked="" type="checkbox"/>	314 WOMENS REPLICA JERSEY BY MAJESTIC ATHLETIC	<input checked="" type="checkbox"/>	315 YOUTH HOME REPLICA JERSEY BY MAJESTIC ATHLETIC
<input checked="" type="checkbox"/>	316 YOUTH COOL BASE BATTING PRACTICE JERSEY BY MAJESTIC ATHLETIC	<input checked="" type="checkbox"/>	317 REPLICA ADJUSTABLE HOME CAP	<input checked="" type="checkbox"/>	318 ALTERNATE 2 FRANCHISE FITTED CAP
<input checked="" type="checkbox"/>	319 TRADITION STRETCHFIT CAP	<input type="checkbox"/>	320 SIREN WOMENS CAP	<input checked="" type="checkbox"/>	321 WOMENS PINK ADJUSTABLE CAP
<input checked="" type="checkbox"/>	322 DARK GREEN CLEAN UP YOUTH CAP	<input checked="" type="checkbox"/>	323 ALL OVER LOGO INFANT BEANIE	<input checked="" type="checkbox"/>	324 SCRUM BASIC T-SHIRT BY BANNER SUPPLY CO.
<input checked="" type="checkbox"/>	325 OFFICIAL LOGO RAGLAN T-SHIRT BY MAJESTIC ATHLETIC	<input checked="" type="checkbox"/>	326 PRACTICE T-SHIRT 10 BY NIKE	<input checked="" type="checkbox"/>	327 WOMENS RUFFLE BLOUSE TOUCH BY ALYSSA MILANO

FIG. 7J

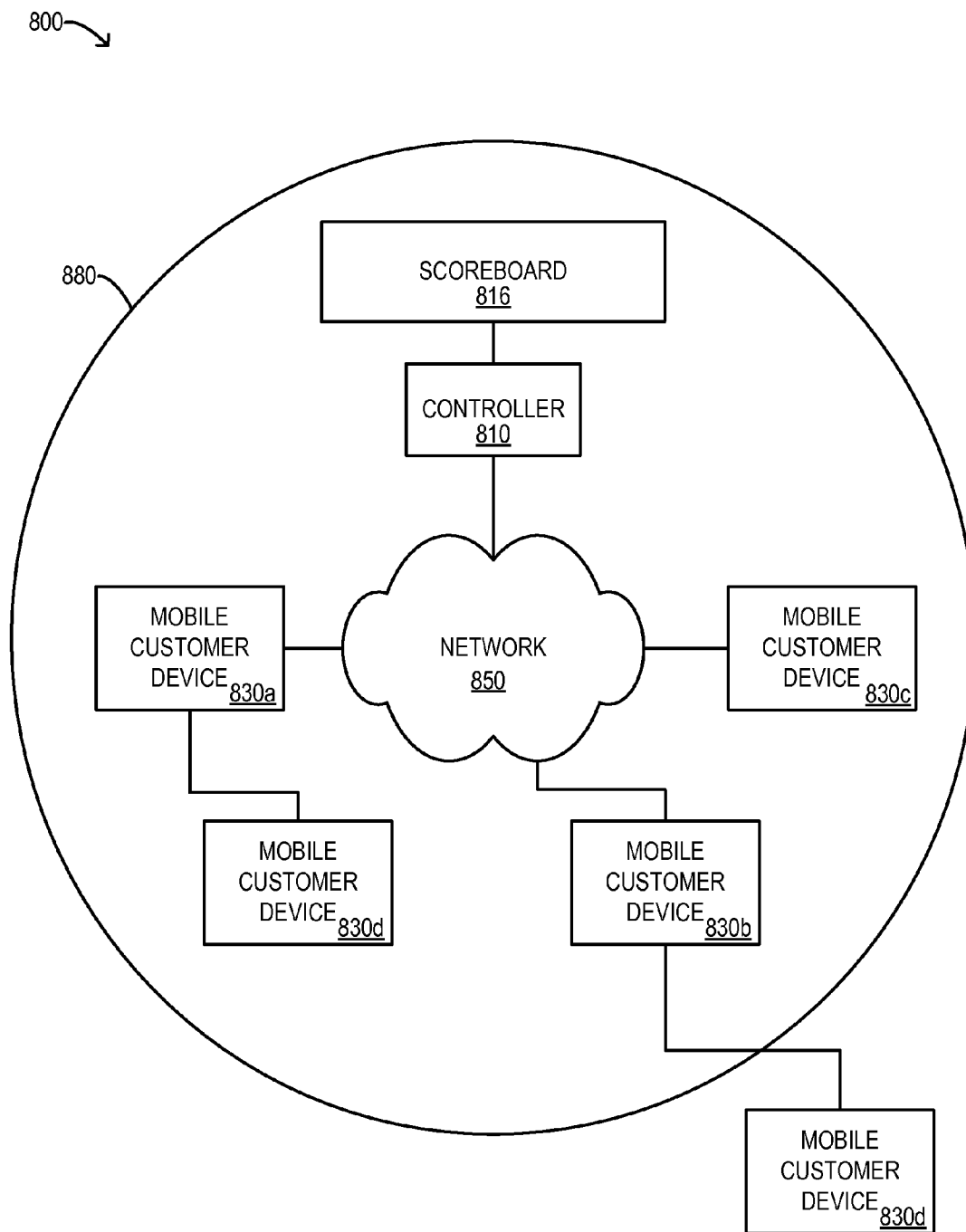


FIG. 8

900 ↘

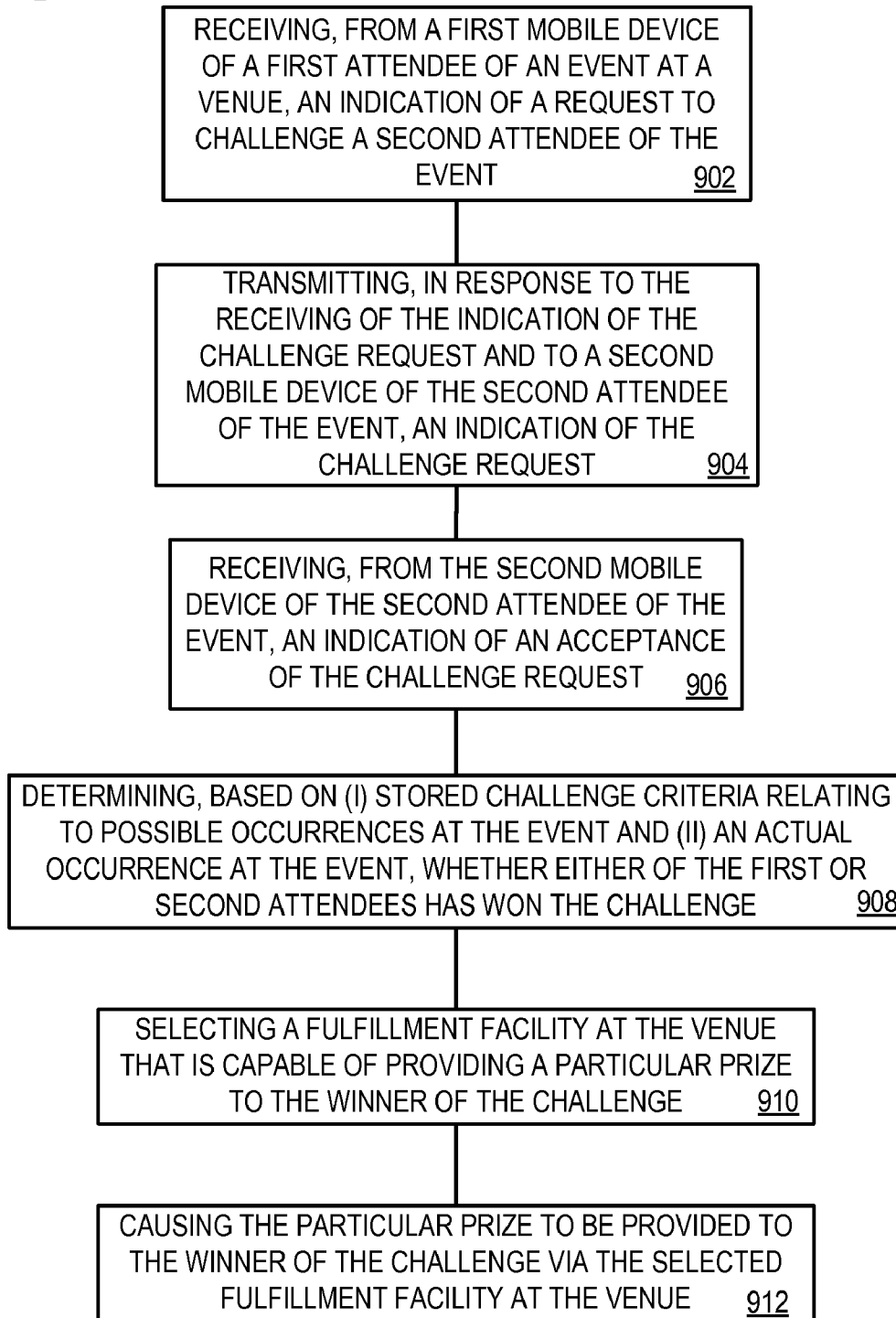


FIG. 9

1030 ↘

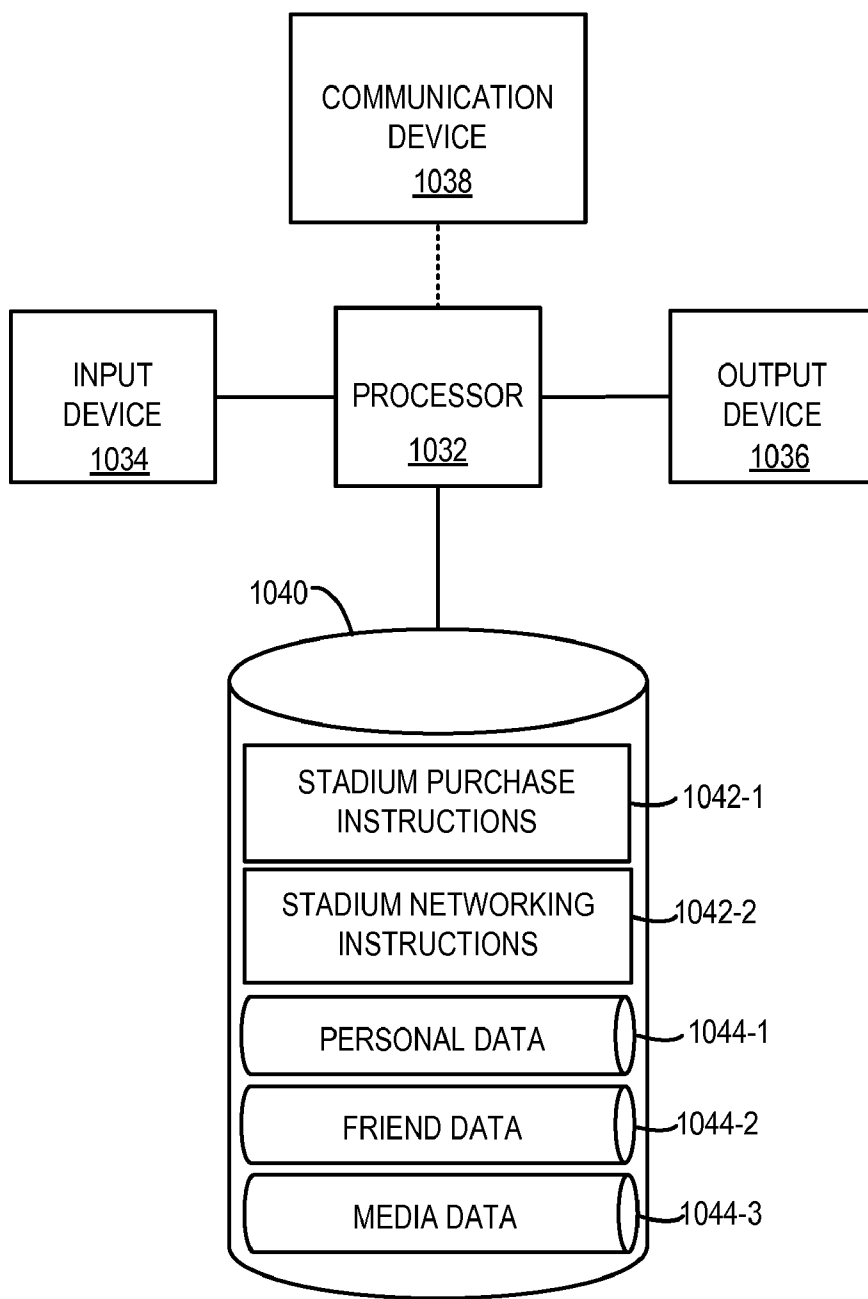


FIG. 10

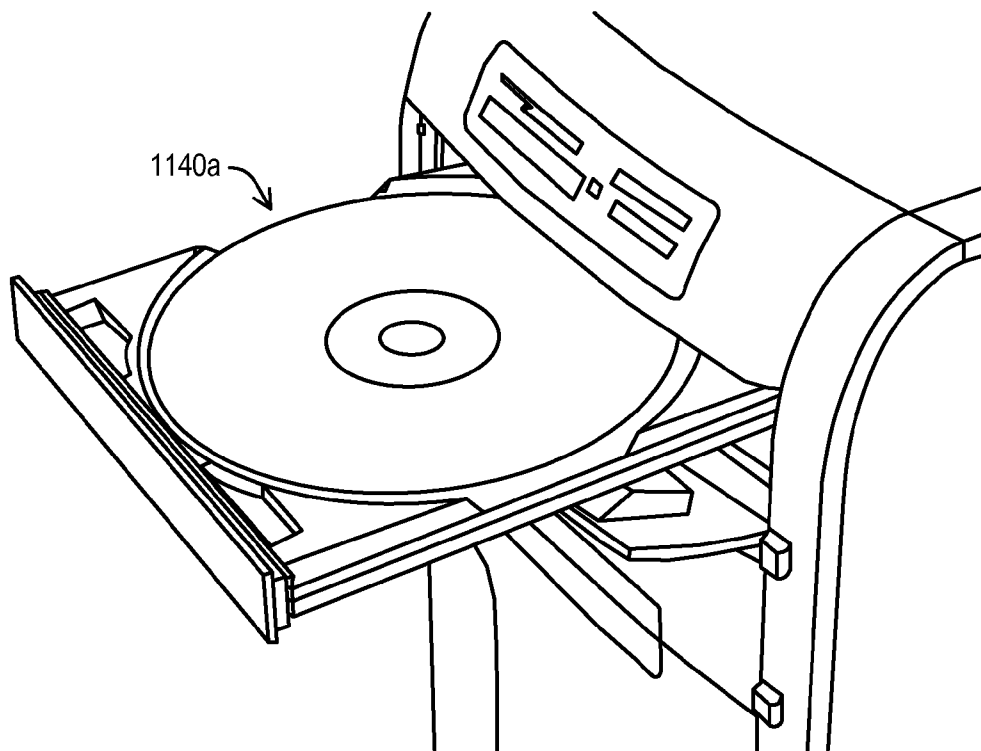


FIG. 11A

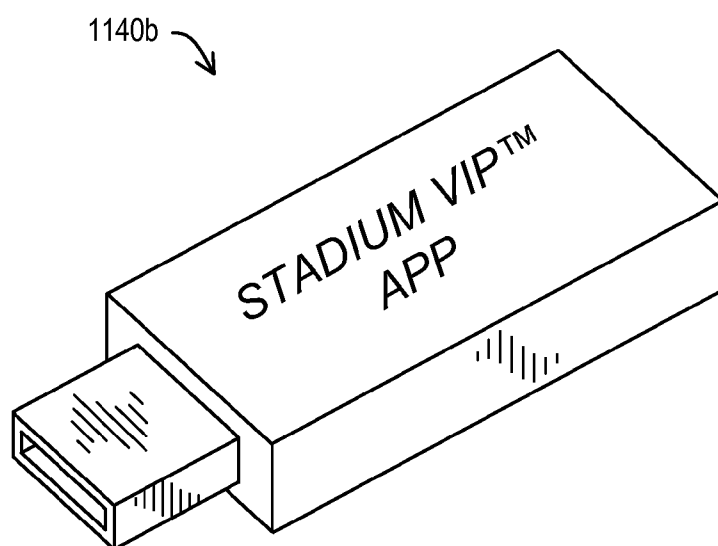


FIG. 11B

VENUE PRODUCT SALES AND NETWORKING

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] The present application claims benefit and priority under 35 U.S.C. §119(e) to (i) U.S. Provisional Patent Application Ser. No. 61/294,101, filed on Jan. 11, 2010, and titled “VENDING MACHINE SYSTEMS AND METHODS”, and (ii) U.S. Provisional Patent Application Ser. No. 61/331,208, filed on May 4, 2010, and titled “EVENT SALES AND DISTRIBUTION SYSTEMS AND METHODS”. Each of the above-referenced applications is hereby incorporated by reference herein.

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BACKGROUND

[0003] The experiences of patrons of entertainment, sports, and other venues are often heavily influenced by weather, availability of refreshments, and interactions with other patrons or fans. The weather, at least at outdoor venues and/or venues not fortunate enough to be equipped with retractable roofs, is largely uncontrollable. Refreshments and/or other product sales are typically conducted via either or both of concession stands (e.g., fixed sales emplacements) and “hockers” (roaming vendors carrying a limited selection of available products). Interactions between fans are informal, disorganized, and limited to communications with fans proximate to each other. Improvements in how refreshments (and/or other products) are sold and/or improvements in fan interactions, could lead to increased patron satisfaction and accordingly to increased venue revenues.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004] An understanding of embodiments described herein and many of the attendant advantages thereof may be readily obtained by reference to the following detailed description when considered with the accompanying drawings, wherein:
[0005] FIG. 1 is a block diagram of a system according to some embodiments;
[0006] FIG. 2 is a flow diagram of a method according to some embodiments;
[0007] FIG. 3 is a flow diagram of a method according to some embodiments;
[0008] FIG. 4 is a block diagram of an apparatus according to some embodiments;
[0009] FIG. 5A and FIG. 5B are perspective system diagrams of processes according to some embodiments;
[0010] FIG. 6A, FIG. 6B, FIG. 6C, FIG. 6D, FIG. 6E, FIG. 6F, FIG. 6G, FIG. 6H, FIG. 6I, FIG. 6J, FIG. 6K, FIG. 6L, FIG. 6M, FIG. 6N, FIG. 6O, FIG. 6P, FIG. 6Q, FIG. 6R, FIG. 6S, FIG. 6T, FIG. 6U, FIG. 6V, FIG. 6W, FIG. 6X, FIG. 6Y, FIG. 6Z, FIG. 6AA, FIG. 6BB, FIG. 6CC, FIG. 6DD, FIG. 6EE, FIG. 6FF, FIG. 6GG, FIG. 6HH, FIG. 6II, and FIG. 6JJ are example interfaces according to some embodiments;

[0011] FIG. 7A, FIG. 7B, FIG. 7C, FIG. 7D, FIG. 7E, FIG. 7F, FIG. 7G, FIG. 7H, FIG. 7I, and FIG. 7J are example interfaces according to some embodiments;

[0012] FIG. 8 is a block diagram of a system according to some embodiments;

[0013] FIG. 9 is a flow diagram of a method according to some embodiments;

[0014] FIG. 10 is a block diagram of an apparatus according to some embodiments; and

[0015] FIG. 11A and FIG. 11B are perspective diagrams of exemplary data storage devices according to some embodiments.

DETAILED DESCRIPTION

I. Introduction

[0016] Embodiments presented herein are descriptive of systems, apparatus, interfaces, methods, and articles of manufacture for venue product (and/or service) sales and networking. In some embodiments, for example, customers (e.g., patrons or fans) of a venue may be provided the capability of ordering products (such as refreshments and/or merchandise) from their seats and/or the ability to have ordered products delivered directly to their seats. According to some embodiments, the customers may be provided with the opportunity and/or capability of electronic networking with other customers at the venue.

[0017] According to some embodiments, for example, methods may include receiving (e.g., by a centralized electronic processing device) an indication of an order for a unit of a product. In some embodiments, the order may be placed via a mobile device of a customer located at a venue. Some embodiments may include (i) determining (e.g., by the centralized electronic processing device) a subset of a plurality of facilities at the venue, wherein each facility of the subset is capable of fulfilling the order, (ii) selecting (e.g., by the centralized electronic processing device and/or based on information indicative of a predicted order fulfillment time at each of the facilities of the subset) one of the facilities of the subset to fulfill the order, (iii) transmitting (e.g., by the centralized electronic processing device) an indication of the order to the selected facility, and/or (iv) transmitting (e.g., by the centralized electronic processing device and/or to the mobile device of the customer) an indication of the selected facility and an indication of an expected order fulfillment time for the order.

[0018] According to some embodiments, methods may include receiving, after the transmitting of the indication of the order to the selected facility, by the centralized electronic processing device and from the selected facility, an indication that order is ready, and/or notifying the customer, via the centralized electronic processing device and in response to receiving the indication from the selected facility, that the order is ready.

[0019] In some embodiments, such as in the case that the order is a delivery-type order, methods may include notifying the customer, via the centralized electronic processing device and in response to receiving the indication from the selected facility, an estimated delivery time of the order. In some embodiments, the determining of the subset may comprise (i) determining that an inventory level of the product at each facility of the subset is above a predetermined threshold, (ii) determining that each facility of the subset is authorized to provide the unit of the product, and/or (iii) determining that

each facility of the subset has one or more of (i) sales and/or (ii) profits, that meet predetermined threshold requirements.

[0020] According to some embodiments, the information indicative of the predicted order fulfillment time at each of the facilities of the subset may comprise (i) information descriptive of a current volume of orders at each of the facilities of the subset and/or (ii) information descriptive of a maximum volume of orders permitted at each of the facilities of the subset. In some embodiments, the selecting may comprise (i) selecting the one of the facilities of the subset to fulfill the order based on the selected one of the facilities of the subset having the quickest predicted order fulfillment time and/or (ii) in the case that the selecting is further based on a predicted delivery time of the order at each of the facilities of the subset, the selecting may comprise selecting the one of the facilities of the subset to fulfill the order based on the selected one of the facilities of the subset having the quickest predicted order fulfillment time plus predicted delivery time.

[0021] In some embodiments, methods may include receiving, from the mobile device of the customer, and indication of a location of the customer at the venue. The indication of the location may comprise, in some embodiments, an indication of one or more of (i) a GPS coordinate of the customer and (ii) a seat number of the customer. According to some embodiments, the selecting may comprise selecting the one of the facilities of the subset to fulfill the order based on the selected one of the facilities of the subset being the shortest distance from the location of the customer. In some embodiments, the distance may comprise a rectilinear distance between the selected facility of the subset and the location of the customer. According to some embodiments, the selecting may comprise (i) selecting the one of the facilities of the subset to fulfill the order based on a type of the facility and/or (ii) selecting the one of the facilities of the subset to fulfill the order based on a rule that specifies that browser-type facilities are to be selected first, runner-type facilities are to be selected second, and pickup-type facilities are to be selected last.

[0022] Some embodiments may include an apparatus comprising an electronic processor communicatively coupled to a memory device storing specially-programmed instructions that when executed by the electronic processor result in execution of one or more of the methods and/or processes described herein. Some embodiments may include a non-transitory computer-readable memory storing specially-programmed instructions that when executed by an electronic processing device result in execution of one or more of the methods and/or processes described herein.

[0023] In some embodiments, a system may comprise a network, comprising: (i) a first communication link to a mobile electronic device operated by a customer at a venue, (ii) a second communication link to a central electronic controller associated with the venue, and/or (iii) a third communication link to a fulfillment facility associated with the venue. In some embodiments, the network: (a) receives, via the first communication link, an indication of an order for a unit of a product, (b) transmits, via the second communication link, the indication of the order for the unit of the product, (c) receives, via the second communication link, an indication of a selection of the fulfillment facility by the central electronic controller, and/or (d) transmits, via the third communication link, the indication of the order for the unit of the product.

[0024] In some embodiments, method may include (i) determining (e.g., by an electronic controller associated with

a concession stand at a venue) information descriptive of a plurality of pending customer orders, (ii) determining (e.g., by the electronic controller) information descriptive of a plurality of available delivery personnel, (iii) allocating (e.g., by the electronic controller and/or based on the customer order information and the delivery personnel information) the plurality of pending customer orders amongst the plurality of available delivery personnel, (iv) transmitting (e.g., by the electronic controller and/or to each delivery personnel of the plurality of available delivery personnel that is allocated one or more customer orders) an indication of the one or more customer orders, and/or (v) transmitting (e.g., by the electronic controller and/or to each customer) an indication of an expected delivery time for each customers' respective order.

[0025] In some embodiments, the information descriptive of the plurality of pending customer orders may comprise information identifying locations of the respective customers and wherein the allocating is further based on rectilinear distances from the customers to the concession stand. In some embodiments, the information identifying locations of the respective customers and wherein the information descriptive of the plurality of available delivery personnel comprises information identifying locations of the respective delivery personnel and wherein the allocating is further based on rectilinear distances between the customers and the delivery personnel. According to some embodiments, the transmitting of the indication of the one or more customer orders to each of the delivery personnel of the plurality of available delivery personnel that is allocated one or more customer orders, may comprises (i) transmitting a list of allocated customer orders, and/or (ii) transmitting an indication of a delivery sequence for the list of allocated customer orders. According to some embodiments, the transmitting of the indication of the one or more customer orders to each of the delivery personnel of the plurality of available delivery personnel that is allocated one or more customer orders, may comprises transmitting a suggested rectilinear route for the delivery personnel to take when delivering the allocated customer orders on the list of allocated customer orders.

[0026] Some embodiments may include a method, comprising (i) receiving, by an electronic controller and from a first mobile device of a first attendee of an event at a venue, an indication of a request to challenge a second attendee of the event, (ii) transmitting, by the electronic controller, in response to the receiving of the indication of the challenge request, and to a second mobile device of the second attendee of the event, an indication of the challenge request, (iii) receiving, by the electronic controller and from the second mobile device of the second attendee of the event, an indication of an acceptance of the challenge request, (iv) determining, by the electronic controller, in response to the receiving of the indication of the acceptance of the challenge request, and based on (1) stored challenge criteria relating to possible occurrences at the event and (2) an actual occurrence at the event, whether either of the first or second attendees has won the challenge, (v) selecting, by the electronic controller, a fulfillment facility at the venue that is capable of providing a particular prize to the winner of the challenge, and/or (vi) causing, by the electronic controller, the particular prize to be provided to the winner of the challenge via the selected fulfillment facility at the venue.

[0027] In some embodiments, a method may comprise (i) receiving, by an electronic controller and from a mobile device of an attendee of an event at a venue, an indication of

media captured at the event, (ii) integrating, by the electronic controller and with the media captured at the event, media obtained from a third-party, and/or (iii) transmitting, by the electronic controller, based on saved preferences of the attendee, and via a social network associated with the attendee, an indication of the integrated media to a plurality of social network friends of the attendee.

[0028] In some embodiments, a system may comprise a network, comprising: (i) a first communication link to a central electronic controller associated with a venue, (ii) a second communication link to a first mobile fan device operated by a first fan of an event at the venue, and/or (iii) a third communication link to a second mobile fan device operated by a second fan of the event at the venue. In some embodiments, the network: (a) receives, via the second communication link, an indication of media captured at the event, (b) transmits, via the first communication link, the indication of media captured at the event, (c) receives, via the first communication link, an indication of an integration of the media captured at the event with third-party media, and (d) transmits, via the third communication link, an indication of the integration of the media captured at the event with third-party media.

II. Terms and Definitions

[0029] Some embodiments described herein are associated with a “venue”. As utilized herein, the term “venue” may be utilized to describe any type of location or area where an event occurs. Venues may generally comprise, for example, buildings, structures, parks, and/or other areas associated with one or more particular events or other happenings. Venues may be of one or more types, typically based on a type of event occurring at the venue. “Entertainment venues”, for example, may comprise theatres, stages, amphitheatres, parks, music halls, and/or other sites or areas where performances are held. “Sports venues” may comprise a type of entertainment venue which may be held or conducted at any location appropriate for an entertainment venue and/or that may be held, for example, in colosseums, stadiums, arenas, race tracks, sports fields, ice rinks, gymnasiums, field houses, and/or other sporting areas. Venues may change type based on different types of events hosted at the venues (e.g., a “sales venue” on a day when a flea market is held, but a sports venue on a day when a football game is held). Venues may typically be attended by one or more customers, patrons, or fans.

[0030] As used herein, the terms “customer”, “patron”, and “fan” may be utilized interchangeably and may generally be descriptive of any individual or other entity that attends an event at a venue. Customers that purchase tickets to (and/or attend) a play in a theatre may, for example, be referred to as patrons, or even “theatre-goers”. Customers of sporting venues such as races are typically referred to as fans (e.g., “race fans”). Venue customers may typically attend and/or watch an event from a specific area (e.g. section) or location (e.g., a seat).

[0031] As used herein, the term “section” may generally refer to a specific area within or at a venue where a customer is located. Sections, such as in stadiums or theatres, for example, may comprise one or more identifiable segmentations of bleachers, boxes, tiers, terraces, stalls, balconies, galleries, and/or other areas therein. Field, club, and upper boxes and standing-room areas at a baseball stadium as well as orchestra, mezzanine, and balcony seats at a theatre are examples of various sections of a venue. Typically, access to different sections is provided to customers at different prices

(e.g., court-side seats at a basketball game are much more expensive than seats in an upper deck, balcony, or back-row). Some sections may have seats or other designated and/or specific areas for a customer to occupy, while others may not.

[0032] As used herein, the term “seat” may generally refer to any specific location at a venue (and/or in a specific section of a venue) for which occupancy by a customer may be provided (e.g., by payment of a fee). Seats may comprise actual devices or furniture for sitting, for example, and/or may comprise other designated areas for standing or for otherwise occupying a location at the venue. Seats may be assigned or first-come-first-served. Some embodiments describe how customers may utilize mobile devices (e.g., customer devices) from their seats to realize benefits as described herein.

[0033] Some embodiments described herein are associated with a “customer device” or a “network device”. As used herein, a “customer device” is a subset of a “network device”. The “network device”, for example, may generally refer to any device that can communicate via a network, while the “customer device” may comprise a network device that is owned or operated by or otherwise associated with a customer. Examples of customer and/or network devices may include, but are not limited to: a Personal Computer (PC), a computer workstation, a computer server, a printer, a scanner, a facsimile machine, a copier, a Personal Digital Assistant (PDA), a storage device (e.g., a disk drive), a hub, a router, a switch, and a modem, a video game console, or a wireless or cellular telephone. Customer and/or network devices may comprise one or more network components.

[0034] As used herein, the term “network component” may refer to a customer and/or network device, or a component, piece, portion, or combination of customer and/or network devices. Examples of network components may include, but are not limited to: a Static Random Access Memory (SRAM) device or module, a network processor, and a network communication path, connection, port, or cable.

[0035] In addition, some embodiments are associated with a “network” or a “communication network”. As used herein, the terms “network” and “communication network” may be used interchangeably and may refer to any object, entity, component, device, and/or any combination thereof that permits, facilitates, and/or otherwise contributes to or is associated with the transmission of messages, packets, signals, and/or other forms of information between and/or within one or more network devices. Networks may be or include a plurality of interconnected network devices. In some embodiments, networks may be hard-wired, wireless, virtual, neural, and/or any other configuration of type that is or becomes known. Communication networks may include, for example, one or more networks configured to operate in accordance with the Fast Ethernet LAN transmission standard 802.3-2002® published by the Institute of Electrical and Electronics Engineers (IEEE). In some embodiments, a network may include one or more wired and/or wireless networks operated in accordance with any communication standard or protocol that is or becomes known or practicable.

[0036] As used herein, the terms “information” and “data” may be used interchangeably and may refer to any data, text, voice, video, image, message, bit, packet, pulse, tone, waveform, and/or other type or configuration of signal and/or information. Information may comprise information packets transmitted, for example, in accordance with the Internet Protocol Version 6 (IPv6) standard as defined by “Internet

Protocol Version 6 (IPv6) Specification” RFC 1883, published by the Internet Engineering Task Force (IETF), Network Working Group, S. Deering et al. (December 1995). Information may, according to some embodiments, be compressed, encoded, encrypted, and/or otherwise packaged or manipulated in accordance with any method that is or becomes known or practicable.

[0037] In addition, some embodiments described herein are associated with an “indication”. As used herein, the term “indication” may be used to refer to any indicia and/or other information indicative of or associated with a subject, item, entity, and/or other object and/or idea. As used herein, the phrases “information indicative of” and “indicia” may be used to refer to any information that represents, describes, and/or is otherwise associated with a related entity, subject, or object. Indicia of information may include, for example, a code, a reference, a link, a signal, an identifier, and/or any combination thereof and/or any other informative representation associated with the information. In some embodiments, indicia of information (or indicative of the information) may be or include the information itself and/or any portion or component of the information. In some embodiments, an indication may include a request, a solicitation, a broadcast, and/or any other form of information gathering and/or dissemination.

III. Venue Product Sales

[0038] A. Overview

[0039] Referring first to FIG. 1, a block diagram of a system 100 according to some embodiments is shown. In some embodiments, the system 100 may comprise a controller 110 in communication with a mobile customer device 130 (e.g., via a network 150). According to some embodiments, the system 100 may comprise a payment device 160 and/or one or more fulfillment devices 170a-n (e.g., also in communication with the network 150). In some embodiments, any or all of the components 110, 130, 160, 170a-n of the system 100 may be located (entirely or partially) at a venue 180 (e.g., as depicted in FIG. 1 in accordance with some embodiments, the controller 110, mobile customer device 130, and fulfillment devices 170a-n are located within the venue 180).

[0040] In some embodiments, the controller 110 may, for example, comprise an electronic and/or computerized controller device such as a computer server communicatively coupled to interface with the mobile customer device 130 (directly and/or indirectly). The controller 110 may, for example, comprise a PowerEdge™ M910 blade server manufactured by Dell®, Inc. of Round Rock, TX which may include one or more Eight-Core Intel® Xeon® 7500 Series electronic processing devices. According to some embodiments (such as depicted in FIG. 1), the controller 110 may be located in (or at) the venue 180. In some embodiments, the controller 110 may be located remote from the venue 180, such as at one or more centralized locations. The controller 110 may also or alternatively comprise a plurality of electronic processing devices located at one or more various sites such as at the venue 180 and/or at one or more other locations remote from the venue 180.

[0041] According to some embodiments, the controller 110 may store and/or execute specially programmed instructions to operate in accordance with embodiments described herein. The controller 110 may, for example, execute one or more programs that permit a customer (not explicitly shown in FIG. 1) of the venue 180 (e.g., operating the mobile customer

device 130) to place purchase orders for products (and/or services) available at or via the venue 180.

[0042] The mobile customer device 130, in some embodiments, may comprise any type or configuration of mobile electronic network and/or communication device that is or becomes known or practicable. The mobile customer device 130 may, for example, comprise a cellular and/or wireless telephone such as an iPhone® manufactured by Apple®, Inc. of Cupertino, Calif. or an Optimus™ S smartphone manufactured by LG® Electronics, Inc. of San Diego, Calif., and running an Android® operating system from Google®, Inc. of Mountain View, Calif. In some embodiments, such as depicted in FIG. 1, the mobile customer device 130 may be utilized by the customer while the customer (and thus the mobile customer device 130 as well) are located at the venue 180. The customer may utilize and/or operate the mobile customer device 130 from a section and/or seat of the venue 180, for example, to purchase products and/or services available for sale at (or via) the venue 180.

[0043] The mobile customer device 130 may, for example, communicate with the controller 110 via the network 150 to effectuate an order and/or sale of one or more products and/or services. In some embodiments, the mobile customer device 130 may interface with the controller 110 to effectuate communications (direct or indirect) with one or more other mobile customer devices 130 (not explicitly shown in FIG. 1), such as may be operated by other customers of the venue 180. The network 150 may, according to some embodiments, comprise a LAN (wireless and/or wired), cellular telephone, Bluetooth®, and/or RF network with communication links between the controller 110 and the mobile customer device 130. In some embodiments, the network 150 may comprise direct communications links between any or all of the components 110, 130, 160, 170a-n of the system 100. The mobile customer device 130 may, for example, be directly interfaced or connected to one or more of the fulfillment devices 170a-n via one or more wires, cables, wireless links, and/or other network components within and/or associated with the venue 180, such network components (e.g., communication links) comprising portions of the network 150. In some embodiments, the network 150 may comprise one or many other links or network components other than those depicted in FIG. 1. The mobile customer device 130 may, for example, be connected to the controller 110 via various cell towers, routers, repeaters, ports, switches, and/or other network components that comprise the Internet and/or a cellular telephone (and/or Public Switched Telephone Network (PSTN)) network, and which comprise portions of the network 150.

[0044] While the network 150 is depicted in FIG. 1 as a single object, the network 150 may comprise any number, type, and/or configuration of networks that is or becomes known or practicable. According to some embodiments, the network 150 may comprise a conglomeration of different sub-networks and/or network components interconnected, directly or indirectly, by the components 110, 130, 160, 170a-n of the system 100. The network 150 may comprise one or more cellular telephone networks with communication links between the mobile customer device 130 and the controller 110, for example, and/or may comprise the Internet, with communication links between the controller 110 and the payment device 160, for example.

[0045] In some embodiments, the payment device 160 may comprise one or more devices including an electronic and/or computerized processing device, such as one or more web

and/or computer servers (physical and/or virtual) owned, operated by, and/or otherwise associated with a financial entity such as a bank, credit card entity, and/or escrow-type agent. In some embodiments, the payment device **160** may be in communication any or all of the controller **110**, the mobile customer device **130**, and/or one or more of the fulfillment devices **170a-n**. The payment device **160** may, for example, communicate and/or provide payment information (e.g., account numbers, account debit authorizations, credit locks, and/or Electronic Funds Transfer (EFT) data) to facilitate the ordering of products and/or services from one or more of the fulfillment devices **170a-n** of the venue **180**, by the customer (e.g., via the mobile customer device **130**).

[0046] According to some embodiments, the fulfillment devices **170a-n** may comprise any type or configuration of devices, equipment, areas, and/or other objects or entities via which units of product and/or services may be purchased at (or via) the venue **180**. The fulfillment devices **170a-n** may comprise, for example, concession stands at the venue **180** (and/or equipment and/or personnel thereof), vending machines, “smart” visi-coolers (e.g., as described in Applicants’ co-pending U.S. patent application Ser. No. _____ filed on Jan. 7, 2011 in the name of Breitenbach et al. and titled “SMART VISI-COOLERS”, the smart visi-cooler descriptions and concepts of which are hereby incorporated by reference herein), “hockers”, “runners”, and/or any devices and/or equipment utilized and/or associated therewith.

[0047] As utilized herein, the term “hocker” may generally refer to any personnel or other entities that offer products and/or services for sale from non-fixed emplacements at the venue **180**. Hockers may comprise, for example, vendors carrying units of product (e.g., refreshments and/or souvenirs) throughout various sections of the venue **180**. As utilized herein, the term “runner” may generally refer to personnel or other entities that deliver units of product from concession stands and/or other fulfillment devices **170a-n** to a section and/or seat of a customer of the venue **180**. In some embodiments, the terms “hockers” and/or “runners” may comprise any devices (such as hardware and/or electronics) that such personnel may utilize to facilitate their wandering/mobile product sales and/or product delivery roles. In some embodiments, a hocker may act as and/or be a runner.

[0048] In some embodiments, a customer operating the mobile customer device **130** may transmit signals to the controller **110** (and/or one or more of the fulfillment devices **170a-n**), the signals being descriptive of an order that the customer desires to place for a product. According to some embodiments, the controller **110** may communicate with the payment device **160** to acquire and/or verify payment for the order. The controller **110** may, in some embodiments, determine whether to transmit signals indicative of the order to the fulfillment devices **170a-n**. According to some embodiments, the controller **110** may select the first fulfillment device **170a** (e.g., based on inventory available at the fulfillment devices **170a-n**, based on order volume and/or capacity at the fulfillment devices **170a-n**, and/or based on distances between the customer and the various fulfillment devices **170a-n**) for fulfillment of the order and may accordingly transmit signals indicative of the order to the first fulfillment device **170a**. In some embodiments, the first fulfillment device **170a** may process the order and provide the desired product(s) and/or service(s) to the customer (e.g., the customer may pickup the product in the case that the first fulfillment device **170a** com-

prises a concession stand, vending machine, and/or smart visi-cooler, or the product may be delivered to the customer in the case that the first fulfillment device **170a** comprises a hocker and/or runner).

[0049] B. Methods

[0050] Turning to FIG. 2, a flow diagram of a method **200** according to some embodiments is shown. In some embodiments, the method **200** may be performed and/or implemented by and/or otherwise associated with one or more specialized computerized processing devices (e.g., the controller **110** and/or the mobile customer device **130** of FIG. 1), specialized computers, computer terminals, computer servers, computer systems and/or networks (e.g., the network **150** of FIG. 1), and/or any combinations thereof. In some embodiments, the method **200** may be embodied in, facilitated by, and/or otherwise associated with various input mechanisms and/or interfaces such as the interfaces **600**, **700** described with respect to FIG. 6A, FIG. 6B, FIG. 6C, FIG. 6D, FIG. 6E, FIG. 6F, FIG. 6G, FIG. 6H, FIG. 6I, FIG. 6J, FIG. 6K, FIG. 6L, FIG. 6M, FIG. 6N, FIG. 6O, FIG. 6P, FIG. 6Q, FIG. 6R, FIG. 6S, FIG. 6T, FIG. 6U, FIG. 6V, FIG. 6W, FIG. 6X, FIG. 6Y, FIG. 6Z, FIG. 6AA, FIG. 6BB, FIG. 6CC, FIG. 6DD, FIG. 6EE, FIG. 6FF, FIG. 6GG, FIG. 6HH, FIG. 6II, FIG. 6JJ, FIG. 7A, FIG. 7B, FIG. 7C, FIG. 7D, FIG. 7E, FIG. 7F, FIG. 7G, FIG. 7H, FIG. 7I, and/or FIG. 7J herein.

[0051] The functional diagrams and flow diagrams described herein do not necessarily imply a fixed order to any depicted actions, steps, and/or procedures, and embodiments may generally be performed in any order that is practicable unless otherwise and specifically noted. Any of the processes and methods described herein may be performed and/or facilitated by hardware, software (including microcode), firmware, or any combination thereof. For example, a storage medium (e.g., a hard disk, Universal Serial Bus (USB) mass storage device, and/or Digital Video Disk (DVD)) may store thereon instructions that when executed by a machine (such as a computerized processing device) result in performance according to any one or more of the embodiments described herein.

[0052] In some embodiments, the method **200** may comprise receiving an indication of an order for a unit of a product, at **202**. The order, for example, may be placed via (e.g., transmitted from or through) a mobile device of a customer (e.g., the mobile customer device **130** of FIG. 1) located at a venue (e.g., the venue **180** of FIG. 1) and/or may be received by an electronic processing device such as a centralized electronic processor (e.g., the controller **110** of FIG. 1). In some embodiments, the order may comprise an indication of payment for any desired products and/or services. The order (or indication thereof) may, for example, comprise an identifier of a product desired for purchase as well as an identifier of a financial account to be charge for an amount equal to the purchase price of the product. In some embodiments, the order (or indication thereof) may comprise an indication of a location of the customer (e.g., a seat, section, and/or other location).

[0053] According to some embodiments, the method **200** may comprise determining (e.g., by the centralized electronic processing device) a subset of a plurality of facilities (e.g., the fulfillment devices **170a-n** of FIG. 1) at the venue, wherein each facility of the subset is capable of fulfilling the order, at **204**. Software executed by a specially-programmed electronic processing (e.g., a customer device and/or a controller device) may, for example, process information indicative of

the order to determine which facilities stock the desired product(s), which facilities currently have stock available, which facilities are currently available (e.g., open for business and/or not otherwise committed—such as in the case of a hocker or runner that is busy), and/or which facilities could benefit from more (or less) order volume (e.g., which facilities are over capacity and should not be selected to fulfill the order or facilities that are under capacity and could benefit from being selected to fulfill the order).

[0054] In some embodiments, the method **200** may comprise selecting one of the facilities of the subset to fulfill the order, at **206**. The controller (or other specialized computer), for example, may utilize one or more rules and/or criteria to determine which of the available subset of facilities should be selected to fulfill the order. The selection may, in some embodiments, be based on information indicative of a predicted order fulfillment time at each of the facilities of the subset. The controller may, for example, select the facility that can (or is likely to be able to) fulfill the order the quickest. According to some embodiments, such as in the case that the facility comprises a concession stand, order fulfillment time may be determined based on how long it will (or is likely to) take to prepare the order and/or how long it will (or is likely to) take for the customer to arrive at the concession stand to acquire the order. In some embodiments, the expected time to delivery of the order by a hocker and/or runner may also or alternatively be utilized in selecting a fulfillment facility. In some embodiments, the proximity of various facilities to the customer may be utilized to select a facility to fulfill the order (e.g., the closest facility to the customer's seat and/or current location).

[0055] According to some embodiments, the method **200** may comprise transmitting (e.g., by the centralized and/or other electronic processing device) an indication of the order to the selected facility (or facilities, e.g., in the case the order is split), at **208**. The controller may, for example, transmit order details, instructions, and/or prioritization information to the selected facility. In such a manner, the order may be entered into an order queue of the facility. In some embodiments, the selected facility may transmit a confirmation that is received by the controller, verifying that the fulfillment of the order is initiated. According to some embodiments, the facility may transmit and/or the controller may receive an indication of an expected order fulfillment time for the order. As described herein, in some embodiments the order fulfillment time may comprise an amount of time that it takes (or is expected to take) to prepare the order. According to some embodiments, the order fulfillment time may also or alternatively comprise an amount of time that it takes (or is expected to take) to get the completed order to the customer (e.g., customer walking time for "pickup" orders (to the facility or roundtrip from the customer's section/seat), and/or hocker and/or runner delivery time for "delivery" orders).

[0056] In some embodiments, the method **200** may comprise transmitting (e.g., by the centralized and/or other electronic processing device and to the mobile device of the customer) an indication of the selected facility and an indication of an expected order fulfillment time for the order, at **210**. Based on information descriptive of the customer's location and the location and/or capabilities of the selected facility, for example, the controller may determine an estimate of how long the customer may likely have to wait for the order to be fulfilled. According to some embodiments, such as in the case that the selected facility transmits information to the

controller (and/or to the customer's device), information from the facility may be provided to indicate to the customer an expected wait time. In some embodiments, order status updates may be provided to the customer. The customer may be notified via text-message, e-mail, voice call, and/or otherwise, for example, when the order is complete and ready to be picked up (for "pickup" orders), when the order is complete and delivery via a hocker and/or runner is being initiated (e.g., for "delivery" orders), and/or when delivery personnel (e.g., a hocker and/or runner) are entering the customer's section and/or seat area (or other location at the venue). Status updates and/or communications with the customer may, in some embodiments, be utilized to assist delivery personnel in finding the customer such as by allowing the customer to speak directly with the delivery personnel or be allowing the customer and/or delivery personnel to enter input directed toward meeting.

[0057] Referring now to FIG. 3, a flow diagram of a method **300** according to some embodiments is shown. In some embodiments, the method **300** may be performed and/or implemented by and/or otherwise associated with one or more specialized computerized processing devices (e.g., the controller **110** and/or the mobile customer device **130** of FIG. 1), specialized computers, computer terminals, computer servers, computer systems and/or networks (e.g., the network **150** of FIG. 1), and/or any combinations thereof. In some embodiments, the method **200** may be embodied in, facilitated by, and/or otherwise associated with various input mechanisms and/or interfaces such as the interfaces **600**, **700** described with respect to FIG. 6A, FIG. 6B, FIG. 6C, FIG. 6D, FIG. 6E, FIG. 6F, FIG. 6G, FIG. 6H, FIG. 6I, FIG. 6J, FIG. 6K, FIG. 6L, FIG. 6M, FIG. 6N, FIG. 6O, FIG. 6P, FIG. 6Q, FIG. 6R, FIG. 6S, FIG. 6T, FIG. 6U, FIG. 6V, FIG. 6W, FIG. 6X, FIG. 6Y, FIG. 6Z, FIG. 6AA, FIG. 6BB, FIG. 6CC, FIG. 6DD, FIG. 6EE, FIG. 6FF, FIG. 6GG, FIG. 6HH, FIG. 6II, FIG. 6JJ, FIG. 7A, FIG. 7B, FIG. 7C, FIG. 7D, FIG. 7E, FIG. 7F, FIG. 7G, FIG. 7H, FIG. 7I, and/or FIG. 7J herein.

[0058] In some embodiments, the method **300** may comprise determining information descriptive of a plurality of pending customer orders, at **302**. An electronic controller associated with a concession stand at a venue and/or a central controller may, for example, receive indications of the plurality of pending customer orders from one or more customers or customer devices. In some embodiments, such as in the case that a central controller receives, aggregates, and/or processes customer orders, a device of a fulfillment facility (e.g., a fulfillment device **170a-n** of FIG. 1) may receive such indications from the central controller. According to some embodiments, the device and/or facility that receives the information and/or indications may comprise a device and/or facility selected by the central controller (e.g., at **206** in the method **200** of FIG. 2). In some embodiments, the information descriptive of each order of the plurality of pending customer orders may comprise information descriptive of a customer, one or more desired products, payment information, customer location information, order type information, order priority and/or weighing information, delivery and/or pickup parameter information, suggested routing information, and/or special instructions.

[0059] According to some embodiments, the method **300** may comprise determining (e.g., by the electronic controller) information descriptive of a plurality of available delivery personnel, at **304**. Information regarding available hockers, inventory carried by available hockers, hocker locations,

available runners, runner locations, delivery personnel routes, venue congestion (e.g., in various sections and/or areas), and/or delivery personnel characteristics may be looked up, queried, received, and/or otherwise acquired. Such information may be stored by and/or acquired from a central controller and/or a fulfillment facility device. Each fulfillment facility at the venue may store information descriptive of associated hockers and/or runners, for example. In some embodiments, one or more central controllers may store such information. In either case (or in a hybrid storage arrangement) any or all fulfillment facilities of the venue may have access to the information.

[0060] In some embodiments, the method **300** may comprise allocating the plurality of pending customer orders amongst the plurality of available delivery personnel, at **306**. The electronic controller, for example, may conduct the allocating based on the customer order information and the delivery personnel information. According to some embodiments, stored instructions may be executed that cause the allocating to be performed in a manner that minimizes and/or reduces expected fulfillment and/or delivery or pickup times for customer orders (or for higher-prioritized customer orders). In some embodiments, combinatorial optimization techniques known to those skilled in the art may be utilized (e.g., “Dynamic Programming” and/or “Scheduling Production Processes”) to develop a resource-constrained (e.g., limited number of delivery personnel) scheduling program. Such a program may take various factors into account in developing an allocation of customer orders amongst delivery personnel. Such factors may include, but are not limited to, temporal constraints (e.g., allowed time window in which delivery must be completed—e.g., based on customer satisfaction and/or product characteristics such as spoilage parameters), procedural constraints (e.g., specific order fulfillment hierarchy, special instructions for temperature-sensitive items, and/or other special instructions based on product characteristics or customer (or venue) requests), and/or resource constraints (based on the information descriptive of a plurality of available delivery personnel—such as whether a delivery personnel is or is scheduled to be available, on break, have time-off, etc.).

[0061] In some embodiments, scheduling and/or allocation performance may be monitored and/or evaluated. Various parameters such as number of orders fulfilled in a given time period, sales (and/or profit) per unit time, experienced customer wait times, inventory spoilage and/or damage, delivery distances traveled, and/or other order fulfillment metrics may, for example, be recorded, stored, and/or processed to evaluate allocation program efficiency and/or performance. In some embodiments, allocation scheme performance metrics may be utilized to enhance the allocation program. Empirical data regarding order delivery distances may be fed back into the allocation program, for example, to initiate changes in the routing methods. The changes can then be evaluated to determine if delivery distances were reduced (or not), and further changes may be made on an iterative basis in an attempt to bring delivery parameters into conformance with desired ranges and/or goals.

[0062] According to some embodiments, the method **300** may comprise transmitting an indication of the one or more customer orders, at **308**. The electronic controller may, for example, transmit an appropriate indication to each delivery personnel of the plurality of available delivery personnel that is allocated one or more customer orders. In the case that such

delivery personnel utilize handheld electronic devices, the indications may be received thereat. In such a manner, for example, the delivery personnel may be presented with an interface via which they may obtain information defining customer orders that the delivery personnel is required to fulfill (i.e., deliver), and order in which the orders should be fulfilled, and/or a route that the delivery personnel should take to minimize delivery distances and/or times. According to some embodiments, such as in the case that a customer is a registered customer, the indication of the customer’s order may include an image and/or other likeness of the customer (e.g., to aid the delivery personnel in locating the customer). This may be particularly advantageous in the case that the customer is in a non-assigned seat section of the venue such as in a lounge, hallway, parking lot, standing-room-only section, and/or other venue area. In some embodiments, the indication of the customer’s order may also or alternatively comprise coordinates, directions, and/or other location information of the customer to aid the delivery personnel in locating the customer.

[0063] In some embodiments, the method **300** may comprise transmitting an indication of an expected delivery time for each customer’s respective order, at **310**. The electronic controller may, for example, transmit an order status to each customer (e.g., via each customer’s portable electronic device—cell phone, tablet computer, PDA, etc.) at various points in time. According to some embodiments, order status information may be transmitted by a delivery personnel device. Once the assigned delivery personnel picks up the prepared and/or packaged order, for example, the delivery personnel may push a button on their mobile device interface which triggers an “order picked up for delivery” message transmittal to the customer. The message may, in some embodiments, include an indication of the expected delivery time. The expected delivery time may be calculated and/or otherwise determined based on various applicable factors such as the delivery personnel’s location, distance (direct and/or rectilinear) to the customer, the delivery personnel’s route, and/or the order’s priority. In some embodiments, other status updates and/or order information may be provided to the customer (either automatically or upon customer inquiry). Once the order is delivered to the customer, for example, an “order delivered: enjoy!” message may be transmitted to (and thus received by) the customer’s mobile device. According to some embodiments, such as in the case that delivery personnel movements and/or locations are tracked or monitored, the controller may update expected delivery times based on updated delivery route data (and either send automatic updates to the customer or refresh the expected time upon customer inquiry—e.g., the customer pushing a button labeled “refresh” on an interface of the customer’s mobile device).

[0064] C. Apparatus

[0065] Turning to FIG. 4, a block diagram of an apparatus **410** according to some embodiments is shown. In some embodiments, the apparatus **410** may be similar in configuration and/or functionality to the controller **110** (and/or the mobile customer device **130** and/or the fulfillment devices **170a-n**) as described in reference to FIG. 1 herein. The apparatus **410** may, for example, execute, process, facilitate, and/or otherwise be associated with the methods **200**, **300** of FIG. 2 and/or FIG. 3 herein. In some embodiments, the apparatus **410** may comprise a processor **412**, an input device **414**, an output device **416**, a communication device **418**, and/or a

memory device **420**. Fewer or more components and/or various configurations of the components **412**, **414**, **416**, **418**, **420** may be included in the apparatus **410** without deviating from the scope of embodiments described herein.

[**0066**] According to some embodiments, the processor **412** may be or include any type, quantity, and/or configuration of electronic and/or computerized processor that is or becomes known. The processor **412** may comprise, for example, an Intel® IXP 2800 network processor or an Intel® XEON™ Processor coupled with an Intel® E7501 chipset, available from Intel® Corporation of Santa Clara, Calif. In some embodiments, the processor **412** may comprise an electronic processor such as an Intel® Core™ 2 Duo P8600 Central Processing Unit (CPU) also available from Intel® Corporation of Santa Clara, Calif. In some embodiments, the processor **412** may execute instructions, such as instructions specially programmed into and/or for the processor **412**. The execution of the specially-programmed instructions may, for example, enable and/or facilitate the apparatus **410** to operate in accordance with embodiments as described herein.

[**0067**] In some embodiments, the processor **412** may comprise multiple inter-connected processors, microprocessors, and/or micro-engines. According to some embodiments, the processor **412** (and/or the apparatus **410** and/or other components thereof) may be supplied power via a power supply (not shown) such as a battery, an Alternating Current (AC) source, a Direct Current (DC) source, an AC/DC adapter, solar cells, and/or an inertial generator. In the case that the apparatus **410** comprises a server such as a blade server, necessary power may be supplied via a standard AC outlet, power strip, surge protector, and/or Uninterruptible Power Supply (UPS) device.

[**0068**] In some embodiments, the input device **414** and/or the output device **416** are communicatively coupled to the processor **412** (e.g., via wired and/or wireless connections, traces, and/or pathways) and they may generally comprise any types or configurations of input and output components and/or devices that are or become known, respectively. The input device **414** may comprise, for example, a keyboard that allows an operator of the apparatus **410** to interface with the apparatus **410** (e.g., by an operator of a central controller and/or by an employee of a fulfillment facility, such as to implement and/or interact with embodiments herein to sell products at venues). The output device **416** may, according to some embodiments, comprise a display screen and/or other practicable output component and/or device. The output device **416** may, for example, provide information, data, and/or images that permit a delivery personnel and/or fulfillment station agent to view assigned customer orders, view order statuses, view order priorities and/or hierarchies, view suggested delivery routes, customer identifying and/or location information, and/or product information (e.g., required temperature, current temperature, maximum delivery times, and/or handling instructions). According to some embodiments, the input device **414** and/or the output device **416** may comprise and/or be embodied in a single device such as a touch-screen monitor.

[**0069**] In some embodiments, the communication device **418** may comprise any type or configuration of communication device that is or becomes known or practicable. The communication device **418** may, for example, comprise a NIC, a telephonic device, a cellular network device, a router, a hub, a modem, and/or a communications port or cable. In some embodiments, the communication device **418** may be

coupled to provide data to a customer device, such as in the case that the apparatus **410** is utilized to facilitate venue product sales via a customer's wireless and/or mobile device. According to some embodiments, the communication device **418** may also or alternatively be coupled to the processor **412**. In some embodiments, the communication device **418** may comprise an IR, RF, Bluetooth™, and/or Wi-Fi® network device coupled to facilitate communications between the processor **412** (and/or the apparatus **410**) and another device (such as the mobile customer device **130** and/or the fulfillment devices **170a-n**, both of FIG. 1).

[**0070**] The memory device **420** may comprise any appropriate information storage device that is or becomes known or available, including, but not limited to, units and/or combinations of magnetic storage devices (e.g., a hard disk drive), optical storage devices, and/or semiconductor memory devices such as Random Access Memory (RAM) devices, Read Only Memory (ROM) devices, Single Data Rate Random Access Memory (SDR-RAM), Double Data Rate Random Access Memory (DDR-RAM), and/or Programmable Read Only Memory (PROM). The memory device **420** may, according to some embodiments, store one or more of stadium ordering instructions **422-1** and/or order allocation instructions **422-2**. In some embodiments, the stadium ordering instructions **422-1** and/or order allocation instructions **422-2** may be utilized by the processor **412** to provide output information via the output device **916** and/or the communication device **918** (e.g., the transmitting of the indications at **208**, **210** of the method **200** of FIG. 2 and/or the transmitting of the indications at **308**, **310** of the method **300** of FIG. 3).

[**0071**] According to some embodiments, the stadium ordering instructions **422-1** may be operable to cause the processor **412** to access and/or process one or more of customer data **424-1**, fulfillment data **424-2**, and/or order data **424-3**, as described herein (e.g., in accordance with the method **200** of FIG. 2 herein). Customer data **424-1**, fulfillment data **424-2**, and/or order data **424-3** received via the input device **414** and/or the communication device **418** may, for example, be analyzed, sorted, filtered, decoded, decompressed, ranked, scored, plotted, and/or otherwise processed by the processor **412** in accordance with the stadium ordering instructions **422-1**. In some embodiments, customer data **424-1**, fulfillment data **424-2**, and/or order data **424-3** may be utilized by the processor **412** to facilitate and/or conduct processes and/or methods in accordance with the stadium ordering instructions **422-1** to allow a customer to purchase products and/or services from (or via) a venue as described herein. The stadium ordering instructions **422-1** may, in some embodiments, interface with an application stored on and/or executed by a customer's mobile phone, for example, to facilitate the purchase and/or delivery of venue merchandise and/or refreshments from a customer's seat (or other location).

[**0072**] According to some embodiments, the order allocation instructions **422-2** may be operable to cause the processor **412** to access and/or process one or more of customer data **424-1**, fulfillment data **424-2**, and/or order data **424-3**, as described herein (e.g., in accordance with the method **300** of FIG. 3 herein). Customer data **424-1**, fulfillment data **424-2**, and/or order data **424-3** received via the input device **414** and/or the communication device **418** may, for example, be analyzed, sorted, filtered, decoded, decompressed, ranked, scored, plotted, and/or otherwise processed by the processor **412** in accordance with the order allocation instructions **422-**

2. In some embodiments, customer data **424-1**, fulfillment data **424-2**, and/or order data **424-3** may be utilized by the processor **412** to facilitate and/or conduct processes and/or methods in accordance with the order allocation instructions **422-2** to allocate customer orders to fulfillment stations and/or delivery personnel as described herein. The order allocation instructions **422-2** may, in some embodiments, interface with an application stored on and/or executed by a mobile device of delivery personnel, for example, to facilitate the load-balancing of orders within a venue and/or to facilitate the delivery of venue merchandise and/or refreshments to a customer's seat (or other location).

[0073] In some embodiments, the customer data **424-1** may comprise any data descriptive of an attribute or characteristic of a customer. Customer data **424-1** may be acquired during a registration processes (e.g., from the customer), for example, and may comprise identifying information such as address, name, e-mail address, preferences, payment accounts and/or information, passwords, etc. In some embodiments, the customer data **424-1** may comprise data descriptive of the customer that is acquired via transactions conducted with the customer. Customer data **424-1** may comprise, for example, customer preferences (empirical), sales history, customer "worth" (e.g., expected value), frequency of purchases, and/or previous or typical ordering locations (e.g., season ticket reserved box seats).

[0074] According to some embodiments, the fulfillment data **424-2** may comprise data descriptive of one or more fulfillment facilities, stations, and/or personnel at (or associated with) the venue. The fulfillment data **424-2** may comprise, for example, data descriptive of fulfillment facility inventory, order preparation and/or packaging statistics (e.g., average order preparation time), sales metrics (e.g., total sales volume, profits, sales and/or profit goals), fulfillment location information (e.g., coordinates, best/quickest routes to and/or from the location, nearby and/or typically served sections and/or seats), fulfillment station capacity information (e.g., maximum customer and/or order queue length, order volume capacity, current capacity and/or queue length, and/or staffing levels), and/or hocker and/or runner metrics (e.g., inventory carried, average delivery times to different sections/seats, history of proper handling of certain types of goods, and/or availability).

[0075] In some embodiments, the order data **424-3** may comprise information descriptive of one or more customer orders. The order data **424-3** may, for example, comprise an identification of desired products and/or services, payment information (e.g., an indication that the order has been paid for and/or an indication of how the order is to be paid for), delivery instructions, customer location information, special handling, preparation, and/or packaging instructions, and/or order priority and/or hierarchy information (e.g., based on First-In-First-Out (FIFO) order fulfillment and/or queuing and/or based on customer ranking or rating—e.g., customers with higher expected values (such as based on expected sales to the customer) may have higher prioritized orders).

[0076] While the apparatus **410** is described with reference to specific quantities and types of components **412**, **414**, **416**, **418**, **420**, variations in the quantities, types, and/or configurations of the components **412**, **414**, **416**, **418**, **420** of the apparatus **410** may be implemented without deviating from the scope of the embodiments described herein.

[0077] D. Processes

[0078] Referring now to FIG. **5A** and FIG. **5B**, functional perspective diagrams of processes **500**, **502** according to some embodiments are shown. In some embodiments, the processes **500**, **502** may be performed and/or implemented by and/or otherwise associated with one or more specialized computerized processing devices (e.g., the controller **110**, mobile customer device **130**, and/or fulfillment devices **170a-n** of FIG. **1** and/or the apparatus **410** and/or processor **412** of FIG. **4** herein), specialized computers, computer terminals, computer servers, computer systems and/or networks, and/or any combinations thereof (e.g., by one or more venue sales computers, networks, controllers, and/or processing devices). In some embodiments, the processes **500**, **502** may be related to and/or comprise methods for sales at venues such as described in accordance with the methods **200**, **300** of FIG. **2** and/or FIG. **3** herein. In some embodiments, the processes **500**, **502** may be embodied in, facilitated by, and/or otherwise associated with various input mechanisms and/or interfaces as described herein.

[0079] According to some embodiments, the processes **500**, **502** may comprise various procedures performed in association with a controller **510** (comprising a communication device **518**, a first database **520-1**, a second database **520-2**, and/or a third database **520-3**), a mobile customer device **530**, a plurality of customers **532-1**, **532-2**, **532-3**, **532-4**, **532-5**, and/or a plurality of fulfillment facilities **570-1**, **570-2**, **570-3**, **570-4**, **570-5**. In some embodiments, the controller **510**, mobile customer device **530**, plurality of customers **532-1**, **532-2**, **532-3**, **532-4**, **532-5**, and/or the plurality of fulfillment facilities **570-1**, **570-2**, **570-3**, **570-4**, **570-5** may be physically located within or at a venue **580** (such as a sports stadium or arena as depicted in FIG. **5A** and FIG. **5B**). According to some embodiments, fewer or more components **510**, **520**, **530**, **532**, **570**, **580** and/or various configurations of the depicted components **510**, **520**, **530**, **532**, **570**, **580** may be included in execution of the processes **500**, **502** without deviating from the scope of embodiments described herein. In some embodiments, the components **510**, **520**, **530**, **532**, **570**, **580** may be similar in configuration and/or functionality to similarly named and/or numbered components as described with reference to system **100** of FIG. **1**, the methods **200**, **300** of FIG. **2** and/or FIG. **3**, and/or the apparatus **410** of FIG. **4** herein.

[0080] In some embodiments, the first process **500** of FIG. **5A** may comprise a transmission sent from the first customer **532-1** (and/or a device operated by the first customer **532-1**; not explicitly shown) and received by the controller **510**, at **590-1**. The transmission may comprise, for example, a request to purchase a unit of a product, payment authorization, location information, and/or account or other information descriptive of the first customer **532-1** and/or a first order placed by the first customer **532-1**. The transmission may comprise an indication of a product identified by the customer. The customer may utilize a mobile device, for example, to select and/or enter a Stock-Keeping Unit (SKU), picture, and/or barcode such as a Universal Product Code (UPC) descriptive of the desired product (or service), such as by browsing through an interface menu of available products and/or services and associated identifiers.

[0081] According to some embodiments, the first process **500** of FIG. **5A** may comprise a transmission sent from the second customer **532-2** (and/or the mobile customer device **530** depicted as being associated therewith) and received by the controller **510**, at **590-2**. In some embodiments, the first

process 500 of FIG. 5A may comprise a transmission sent from the third customer 532-3 (and/or a device operated by the first customer 532-3; not explicitly shown) and received by the controller 510, at 590-3. In some embodiments, the first process 500 of FIG. 5A may comprise a transmission sent from the fourth customer 532-4 (and/or a device operated by the first customer 532-4; not explicitly shown) and received by the controller 510, at 590-4.

[0082] As depicted in FIG. 5A, any or all of the transmissions from the customers 532 and/or information associated therewith may be stored in the first database 520-1, which may, for example, be referred to as an “order” database (or a “customer” database). In some embodiments, the information received from the customers 532 may comprise information similar to the customer data 424-1 and/or the order data 424-3 described in reference to FIG. 4 herein and/or may be similar to the information described in reference to the procedures at 202, 302 of the methods 200, 300 of FIG. 2 and/or FIG. 3 herein. In some embodiments, fewer or more data elements and/or data fields than are shown and/or described may be associated with the databases described herein. Only a portion of one or more databases and/or other data stores is necessarily shown and/or described herein, for example, and other database fields, columns, structures, orientations, quantities, and/or configurations may be utilized without deviating from the scope of some embodiments. Similarly, the data shown and/or described in the various data elements, types, and/or fields is provided solely for exemplary and illustrative purposes and does not limit the scope of embodiments described herein.

[0083] According to some embodiments, the first process 500 of FIG. 5A may comprise a transmission sent from the first fulfillment facility 570-1 and received by the controller 510, at 592-1. In some embodiments, the information may not be transmitted, but instead may be provided, looked-up, and/or otherwise acquired by the controller 510. As depicted in FIG. 5A for purposes of example only, the first fulfillment facility 570-1 comprises a concession stand at the venue 580. In some embodiments, the information received (and/or otherwise determined) by the controller 510 at 592-1 may comprise information descriptive of the concession stand 570-1. The information may comprise, for example, information descriptive of a current state of pending orders, order fulfillment data, staffing information, inventory information, and/or sales information (e.g., how close the concession stand 570-1 is to sales and/or profit goals and/or how much change the concession stand 570-1 has on hand).

[0084] In some embodiments, the first process 500 of FIG. 5A may comprise a transmission sent from the second fulfillment facility 570-2 and received by the controller 510, at 592-2. As depicted in FIG. 5A for purposes of example only, the second fulfillment facility 570-2 comprises a hocker at the venue 580. In some embodiments, the information received (and/or otherwise determined) by the controller 510 at 592-2 may comprise information descriptive of the hocker 570-2. The information may comprise, for example, information descriptive of the availability of the hocker 570-2 (e.g., is the hocker 570-2 busy or not), information descriptive of any inventory carried by the hocker 570-2, an indication of the location of the hocker 570-2 (e.g., coordinates, section number, seat number, and/or distance from one or more waypoints or destinations), and/or an indication of a status of the hocker 570-2 (e.g., does the hocker 570-2 need a break or rest, how

long has the hocker 570-2 been deployed, and/or biometric information descriptive of the hocker 570-2—e.g., heart rate, etc.).

[0085] According to some embodiments, the first process 500 of FIG. 5A may comprise a transmission sent from the third fulfillment facility 570-3 and received by the controller 510, at 592-3. As depicted in FIG. 5A for purposes of example only, the third fulfillment facility 570-3 comprises a smart visi-cooler at the venue 580. In some embodiments, the information received (and/or otherwise determined) by the controller 510 at 592-3 may comprise information descriptive of the smart visi-cooler 570-3. The information may comprise, for example, information descriptive of inventory levels in the smart visi-cooler 570-3, an operational status of the smart visi-cooler 570-3 (e.g., any errors, temperature settings, and/or whether the door is opened or closed), and/or an indication of how many customers are waiting in line at the smart visi-cooler 570-3 (e.g., a length of a sales queue at the smart visi-cooler 570-3).

[0086] In some embodiments, the first process 500 of FIG. 5A may comprise a transmission sent from the fourth fulfillment facility 570-4 and received by the controller 510, at 592-4. As depicted in FIG. 5A for purposes of example only, the fourth fulfillment facility 570-4 comprises a runner at the venue 580. In some embodiments, the information received (and/or otherwise determined) by the controller 510 at 592-4 may comprise information descriptive of the runner 570-4. The information may comprise, for example, information descriptive of the availability of the runner 570-4 (e.g., is the runner 570-4 busy or not), information descriptive of any inventory carried by the runner 570-4, an indication of the location of the runner 570-4 (e.g., coordinates, section number, seat number, and/or distance from one or more waypoints or destinations), and/or an indication of a status of the runner 570-4 (e.g., does the runner 570-4 need a break or rest, how long has the runner 570-4 been deployed, and/or biometric information descriptive of the runner 570-4—e.g., heart rate, etc.).

[0087] As depicted in FIG. 5A, any or all of the transmissions from the fulfillment facilities 570 and/or information associated therewith may be stored in the second database 520-2, which may, for example, be referred to as a “fulfillment facility” database. In some embodiments, the information received from the fulfillment facilities 570 may comprise information similar to the fulfillment data 424-2 described in reference to FIG. 4 herein and/or may be similar to the information described in reference to the procedures at 204, 304 of the methods 200, 300 of FIG. 2 and/or FIG. 3 herein. The information may be relatively static, such as information descriptive of a location of a fixed-placement concession stand or smart visi-cooler, or information regarding what types of products the concession stand usually stocks, or the information may be dynamic, such as the current location of a runner or hocker, current inventory levels (e.g., of a concession stand, smart visi-cooler, and/or hocker), current status, etc.

[0088] In some embodiments, the second process 502 of FIG. 5B may comprise a transmission sent from the controller 510 and received by the hocker 570-2, at 594-1. The controller 510 may, for example, allocate the various orders from the customers 532 amongst the various fulfillment facilities 570. As depicted in FIG. 5B, for example, the controller 510 may store order allocation information in the third database 520-3. As an example, the first order of the first customer 532-1 may

comprise a “delivery” type order and may be assigned to the hocker 570-2. In some embodiments, the first order may be assigned to the hocker 570-2 because it is determined that the hocker 570-2 has appropriate inventory to fulfill the order and/or because the hocker 570-2 is currently located in the same section as the first customer 532-1. In some embodiments, the hocker 570-2 may be selected as being the fastest possibly fulfillment facility 570 for fulfilling the first order (e.g., because the hocker 570-2 is the closest fulfillment facility 570 to the first customer 532-1 and/or the closest fulfillment facility 570 that is capable of fulfilling the first order). In some embodiments, the transmission at 594-1 may include providing data descriptive of the first order and/or the first customer 532-1. The information may comprise, for example, information informing the hocker 570-2 that the first order has been assigned to the hocker 570-2, information indicating quantities and/or types of products purchased, information indicating where the first customer 532-1 is located (and/or identifying another location where the order should be delivered), what the first customer 532-1 looks like and/or is wearing, and/or priority or routing information associated with the first order.

[0089] According to some embodiments, the second process 502 of FIG. 5B may comprise a transmission sent from the controller 510 and received by the runner 570-4, at 594-2. The controller 510 may allocate the second order from the second customer 532-2 to the runner 570-4, for example, and store information descriptive of the allocation in the third database 520-3 (as shown).

[0090] In some embodiments, the second process 502 of FIG. 5B may comprise a transmission sent from the controller 510 and received by the smart visi-cooler 570-3, at 594-3. As depicted, for example, the controller 510 may allocate the third order from the third customer 532-3 to the smart visi-cooler 570-3. In some embodiments, the transmission at 594-3 may include information informing the smart visi-cooler 570-3 of the assigned third order such as information identifying the third customer 532-3 that will be picking up the desired product(s) at the smart visi-cooler 570-3. In some embodiments, the information may comprise a code, password, account number, picture of the third customer 532-3, and/or other information that permits the smart visi-cooler 570-3 to verify (i) that an accessing of the smart visi-cooler 570-3 is conducted by the third customer 532-3 (e.g., as opposed to another customer 532) and/or (ii) that the third customer 532-3, upon accessing the smart visi-cooler 570-3, removes the correct type and/or quantity of product from the smart visi-cooler 570-3.

[0091] According to some embodiments, the second process 502 of FIG. 5B may comprise a transmission sent from the controller 510 and received by the concession stand 570-1, at 594-4. The controller 510 may allocate the fourth order from the fourth customer 532-4 to the concession stand 570-1, for example, and store information descriptive of the allocation in the third database 520-3 (as shown). In some embodiments, the concession stand 570-1 may be selected to fulfill the fourth order, despite being near the opposite side of the venue 580. Other closer fulfillment facilities 570 may not, for example, have the correct inventory to fill the order, may be understaffed and/or too busy, may have already achieved sales and/or profit goals, and/or may actually be more difficult to access by the fourth customer 532-4 (e.g., the fourth customer 532-4 may be handicapped and the concession stand 570-1 may be the closest (or only) handicapped-accessible

fulfillment facility 570 and/or a route to the concession stand 570-1 may be easier and/or quicker to travel (e.g., less congestion, fewer turns, and/or may have elevators and/or handicapped-access ramps) than routes to nearer fulfillment facilities 570 (not explicitly shown).

[0092] In some embodiments, information transmitted (and/or otherwise provided) to the fulfillment facilities 570 (e.g., at 594-1, 594-2, 594-3, and/or 594-4) may include information descriptive of one or more suggested routes 596 via which orders may be fulfilled (e.g., routes 596 that customers 532 may take to pick-up ordered products and/or routes 596 that delivery personnel 570-2, 570-4 may take to deliver products to customers 532). The first transmission at 594-1, for example, may comprise information descriptive of a first route 596-1 that the hocker 570-2 may take to locate and/or deliver products and/or services to the first customer 532-1. According to some embodiments, the first route 596-1 may be determined (e.g., by the controller 510) to have the shortest distance and/or shortest travel time amongst available routing options. In some embodiments, the first route 596-1 may comprise one or more best available (e.g., shortest distance and/or shortest time) rectilinear (e.g., “Manhattan” or “taxi-cab”) routes (e.g., taking into account available aisles, section layouts, seating configurations, etc.).

[0093] According to some embodiments, the information made available to the hocker 570-2 may also or alternatively comprise information descriptive of a second route 596-2. The second route 596-2 may, for example, comprise a longer path but may, for example, pass by a fifth customer 532-5 that needs assistance, has also ordered a product stocked by the hocker 570-2 (e.g., an additional sales and/or fulfillment opportunity), and/or that is known (e.g., by the controller 510) to have a history of ordering from hockers.

[0094] In some embodiments, the second transmission 594-2 to the runner 570-4 may include an indication of a third route 596-3. The third route 596-3 may, for example, comprise a path that takes the runner 570-4 near a fifth fulfillment facility 570-5 which may comprise a product pickup location and/or repository (e.g., a location where hockers and/or runners may re-stock and/or pickup units of product for distribution—e.g., to fulfill allocated customer orders).

[0095] According to some embodiments, while not explicitly depicted in FIG. 5A or FIG. 5B, other transmissions and/or provisions of information may be included in the processes 500, 502. Once an order is allocated to a fulfillment facility 570 and/or a fulfillment facility 570 acknowledges assignment of the order, the associated customer 532 may be notified that order fulfillment has been initiated, delivery has been initiated, order preparation is complete and the order is ready for pick-up.

[0096] The transmissions and/or flow of data between the controller 510, the customers 532 (and/or mobile customer devices 530), and/or fulfillment facilities 570 may be accomplished via one or more network connections and/or communication links between such components 510, 530, 532, 570. While a network (such as the network 150 of FIG. 1) is not explicitly shown in FIG. 5A or FIG. 5B, for example, it should be understood that the described communications may occur over, through, and/or via such a network and/or may be facilitated by one or more network components thereof.

[0097] E. Interfaces

[0098] Turning now to FIG. 6A, FIG. 6B, FIG. 6C, FIG. 6D, FIG. 6E, FIG. 6F, FIG. 6G, FIG. 6H, FIG. 6I, FIG. 6J, FIG. 6K, FIG. 6L, FIG. 6M, FIG. 6N, FIG. 6O, FIG. 6P, FIG.

6Q, FIG. 6R, FIG. 6S, FIG. 6T, FIG. 6U, FIG. 6V, FIG. 6W, FIG. 6X, FIG. 6Y, FIG. 6Z, FIG. 6AA, FIG. 6BB, FIG. 6CC, FIG. 6DD, FIG. 6EE, FIG. 6FF, FIG. 6GG, FIG. 6HH, FIG. 6II, and FIG. 6JJ, example interfaces 600 according to some embodiments are shown. In some embodiments, the interfaces 600 may comprise a web page, web form, database entry form, Application Program Interface (API), spreadsheet, table, and/or application or other Graphical User Interface (GUI), such as a smart phone application. The interfaces 600 may, for example, be utilized by a customer and may facilitate the customer's purchase of products and/or services at a venue as described herein. The interfaces 600 may, for example, comprise portions of a venue product sales application and/or platform programmed and/or otherwise configured to execute, conduct, and/or facilitate any of the various methods 200, 300 of FIG. 2, and/or FIG. 3 and/or the process 500, 502 of FIG. 5A and/or FIG. 5B, and/or portions or combinations thereof. In some embodiments, the interfaces 600 may be output via one or more computerized device such as the mobile customer device 130, 530 of FIG. 1 and/or FIG. 5A and/or FIG. 5B herein.

[0099] According to some embodiments, the interface 600 shown in FIG. 6A, may comprise an interface screen that allows a customer to register for venue product and/or service sales. As depicted, for example, the interface 600 may provide functionality to allow the customer to enter e-mail, password, and/or other login information and/or may permit the customer to create a new account with an entity that manages and/or facilitates venue product sales (e.g., with the controller 110, 510 of FIG. 1 and/or FIG. 5A and/or FIG. 5B herein). As depicted in FIG. 6B, the customer may enter registration information into the interface 600. In some embodiments, as depicted in FIG. 6C, the customer may also or alternatively be prompted to enter a mobile telephone number and/or other mobile device identification information (e.g., information associated with the mobile customer device 130, 530 of FIG. 1 and/or FIG. 5A and/or FIG. 5B herein).

[0100] According to some embodiments (as depicted in FIG. 6D), the interface 600 may prompt the customer to enter a name, nickname, account name, and/or "handle". Such information may be utilized, for example, to facilitate communications with the customer (e.g., the hocker 570-2 of FIG. 5A and/or FIG. 5B may utilize the customer's name or handle to locate the customer (e.g., in a crowd), such as by calling the customer's name in a specific section of a venue, and/or to properly address the customer once located. In some embodiments (as depicted in FIG. 6E), the interface 600 may comprise a form via which the customer may enter credit card and/or other payment information to be associated with the customer's venue product sales account. As shown in FIG. 6F, in some embodiments the customer may enter credit card information such as by selecting the appropriate credit card type from a drop-down list and/or by entering the appropriate credit card account identifier(s). In some embodiments, such as depicted in FIG. 6G, the interface 600 may provide a registration confirmation screen that may, for example, give the customer an opportunity to read any applicable terms and conditions, privacy policies, etc. In the case that the customer indicates an acceptance of any applicable terms and conditions, the interface 600 may provide an indication that the registration is being processed, such as shown in FIG. 6H.

[0101] According to some embodiments, such as in the case that the customer is already registered and/or has just finished the registration process, the customer may utilize the inter-

face 600 to initiate a product (and/or service) purchase at (and/or via) the venue (depicted in FIG. 6I). The interface 600 may, in some embodiments, provide the customer with options to select a nearby venue (e.g., based on location information associated with the customer) and/or to browse available venues by the state and or region within which the customer is attending an event at a venue such as a sports stadium. As depicted in FIG. 6I, for example, the interface 600 may prompt the customer to select the nearby "Stadium VIP" or browse available venues via one of "California", "Connecticut", and "D.C." (e.g., the District of Columbia).

[0102] In some embodiments, such as in the case that the customer selects the nearby "Stadium VIP", a confirmation screen may be provided (as depicted in FIG. 6J) that affords the customer the opportunity to confirm the selection or go back to the venue selection screen. According to some embodiments (as depicted in FIG. 6K), once the venue (e.g., stadium) is selected, the customer may select, enter, and/or otherwise indicate where in the venue the customer is located. As shown in FIG. 6K, the customer may enter a section, row, and/or seat number (e.g., for assigned-seating venues and/or venues having identifiable seats and/or locations) into and/or via the interface 600. In some embodiments, the customer's location may automatically be determined and/or entered by the customer (e.g., in the case that the customer is not in an assigned and/or identifiable seat). According to some embodiments, the customer may utilize a mobile device to take a picture and/or video of the customer's surroundings so that the customer's location can be determined (e.g., by a controller and/or delivery personnel). In some embodiments, such as in the case that the customer selects "Section 12, Row A, Seat 1", a confirmation screen may be provided (as depicted in FIG. 6L) that affords the customer the opportunity to confirm the customer's location or go back to the location selection screen.

[0103] In some embodiments (as depicted in FIG. 6M), the interface 600 may indicate to the customer that the customer's "session" is being activated. The customer's registration information, account information, location information, and/or venue specific menus and/or interface screens or options may, for example, be processed and/or loaded onto the customer's mobile device. As an example, the menu options depicted in FIG. 6N may be presented to the customer via the interface 600 and may, for example, be tailored, customized, and/or otherwise based on the specific venue (e.g., "Stadium VIP") and/or the customer. As shown in FIG. 6N, the customer may select a "Merchandise" menu, a "Food & Drinks" menu, a "help" menu, a "settings" menu, and/or select to "exit" the stadium (e.g., an option to deselect the selected venue within the application that generates and/or presents the interface 600).

[0104] In some embodiments (such as depicted in FIG. 6O), such as in the case that the customer selects the "Merchandise" menu, the interface 600 may comprise a display via which the customer may browse through and/or select various merchandise for sale at (or via) the venue. As depicted in FIG. 6O, for example, the customer may select a "Home/Off" (e.g., home and office) menu category and browse through products categorized there under—such as the Oakland Athletics™ recliner as shown. According to some embodiments (as depicted in FIG. 6P), the customer may choose the "Jerseys" category to view available sports jerseys. The customer may also or alternatively narrow the category selection be select-

ing one of “Male”, “Female”, or “Kids” (e.g., the men’s “authentic” jersey is shown in FIG. 6P).

[0105] According to some embodiments, the customer may select a “Caps/Hats” category (as depicted in FIG. 6Q) and the “Female” subcategory to browse to and/or identify the “siren women’s cap” as shown. In some embodiments, as instructed by the interface 600, the customer may tap (e.g., select) the image of the cap to add a unit of the selected product to the customer’s virtual shopping cart. As shown in FIG. 6Q, for example, the numeral one (1) may appear in the product picture display area to indicate that the customer has added one (1) unit of the selected cap to the customer’s shopping cart.

[0106] In some embodiments, such as when an error occurs (as depicted in FIG. 6R), an error screen may be displayed via the interface 600. As shown in FIG. 6R, for example, the cap selected for purchase by the customer is not available and the customer is prompted to remove the item from the virtual shopping cart and to select a different product for purchase. As an example, the customer may then select a “women’s replica jersey” as depicted in FIG. 6S. In some embodiments, such as in the case that an item requiring order details is selected for purchase (e.g., such as the women’s replica jersey), an order details section screen, such as the size selection screen depicted in FIG. 6T, may be presented to the customer. In some embodiments, once any order details are selected and/or otherwise defined, the desired item(s) may be added to the customer’s virtual shopping cart, as shown in FIG. 6U. According to some embodiments, the customer may enter payment information and/or payment confirmation information, such as the customer’s billing zip code, as depicted in FIG. 6V. In some embodiments, such as in the case that the customer indicates a desire to consummate the order (e.g., by pressing a “submit” button—not explicitly shown), the interface 600 may indicate (e.g., via a processing status screen such as shown in FIG. 6W) a status of the processing and/or consummation of the order.

[0107] In some embodiments, the interface 600 may provide the customer with a list of pending orders (e.g., orders submitted and/or paid for) via a pending order screen such as is depicted in FIG. 6X. The pending order screen may, for example, show (i) a line-item (or other object) representing the order for the women’s jersey, (ii) an indication of the fulfillment facility at (or associated with) the venue that has been assigned the order (e.g., the “concession #100”), and/or (iii) an estimate of the time to packaging, preparation, fulfillment, and/or delivery of the order. In some embodiments, the order may be assigned a color, code, picture, image, and/or other identifier, such as the initials “AJZ” as shown in FIG. 6X.

[0108] According to some embodiments, the interface 600 may comprise a full-screen view of an order and/or order details, such as depicted in FIG. 6Y. The full-screen view of the order may be presented to the customer, for example, in the case the customer selects (e.g., touches the line-item representing) the order from the list of pending orders presented in FIG. 6X. As depicted in FIG. 6Y, the order detail screen may, in some embodiments, present the order identifier (e.g., “AJZ”), an indication of the customer’s seat number and/or location, an indication of whether the order is a “pickup” or “delivery” type order, and/or an indication of when the order will be ready/delivered (e.g., expected fulfillment time).

[0109] As another example of how the interface 600 may be utilized in accordance with some embodiments, FIG. 6Z depicts a customer viewing a product screen for a hot dog (e.g., from the “food” category). In some embodiments, the customer may select the hot dog for purchase (e.g., add a hot dog to the customer’s virtual shopping cart) by tapping the picture/image of the hot dog. As shown in FIG. 6AA, for example, the customer may have tapped the image of the hot dog twice (and/or otherwise indicated a desire to purchase two hot dogs), such as is indicated by the number two (2) shown next to and/or on the image of the hot dog.

[0110] In a continuance of the example, the customer may then navigate to the product screen for a twenty-ounce (20 oz.) Coca-Cola® (e.g., from the “Soda” category), as depicted by FIG. 6BB, and also add two units of the desired product to the customer’s virtual shopping cart. According to some embodiments, such as in the case the customer selects the “Go to Cart” button, a virtual shopping cart screen (as depicted in FIG. 6CC) may be displayed. The virtual shopping cart screen may list items added to the cart by the customer, for example, as well as prices. As shown in FIG. 6CC, the virtual shopping cart screen may include a “Checkout” button which may, in some embodiments and upon selection by the customer, cause the interface 600 to display a processing status screen as depicted in FIG. 6DD.

[0111] In some embodiments, such as in the case that the order from FIG. 6CC and/or FIG. 6DD is consummated (e.g., processed, verified, submitted, and/or paid for), the interface 600 may present an order list screen, such as is depicted in FIG. 6EE. The order list screen may include a listing of any outstanding (e.g., pending) orders, for example, such as the order for the Coca-Cola® sodas and the hot dogs, an identifier of an assigned fulfillment location/facility (e.g., “Concession #112”), and/or an estimated order fulfillment time. According to some embodiments, such as depicted in FIG. 6FF, an e-mail (and/or other communication) may be sent to the customer (and/or the customer’s mobile device) alerting the customer of the placement of the order and/or summarizing order details such as cost, ordered items, transaction and/or receipt identifiers, and/or instructions regarding order fulfillment.

[0112] In some embodiments, such as shown in FIG. 6GG, the interface 600 may provide a screen identifying the placed order and/or details thereof. Information identifying the order (e.g., “AKJ”), the customer’s location (e.g., seat, section, and/or coordinates), information identifying the fulfillment method (e.g., pickup or delivery), and/or information indicating the estimated time to fulfillment may, for example, be included. In some embodiments, such as in the case that the status of the order changes, an order status change screen (as depicted in FIG. 6HH) may be presented via the interface 600. As shown in FIG. 6HH, for example, the order status change screen may indicate that the order has been prepared and/or packaged and has been picked up by a runner and/or hocker for delivery to the customer’s location. While the message of the status change depicted in FIG. 6HH may, in some embodiments, be illustrative of a message from an application running on the customer’s mobile device, other notification methods are also or alternatively contemplated. As shown in FIG. 6II, for example, the status change notification may be sent via text message (e.g., via Short Message Service (SMS)) to the customer’s device. In some embodiments, such as in the case that the order is picked up by the customer, delivered to the customer, and/or otherwise fulfilled or closed, the inter-

face 600 may display a status update screen informing the customer that the order is complete (as shown in FIG. 6JJ).

[0113] Turning now to FIG. 7A, FIG. 7B, FIG. 7C, FIG. 7D, FIG. 7E, FIG. 7F, FIG. 7G, FIG. 7H, FIG. 7I, and FIG. 7J, example interfaces 700 according to some embodiments are shown. In some embodiments, the interfaces 700 may comprise a web page, web form, database entry form, API, spreadsheet, table, and/or application or other GUI, such as a POS application. The interfaces 700 may, for example, be utilized by an employee of a product and/or service fulfillment station to facilitate a customer's purchase of products and/or services at a venue as described herein, and/or to facilitate distribution and/or delivery of such purchases to the customer as described herein. The interfaces 700 may, for example, comprise portions of a venue product sales application and/or platform programmed and/or otherwise configured to execute, conduct, and/or facilitate any of the various methods 200, 300 of FIG. 2, and/or FIG. 3 and/or the process 500, 502 of FIG. 5A and/or FIG. 5B, and/or portions or combinations thereof. In some embodiments, the interfaces 700 may be output via one or more computerized device such as the controller 110, 510 of FIG. 1 and/or FIG. 5A and/or FIG. 5B, the apparatus 410 of FIG. 4, and/or any or all of the fulfillment devices 170a-n, 570 of FIG. 1 and/or FIG. 5A and/or FIG. 5B, herein.

[0114] According to some embodiments, the interface 700 shown in FIG. 7A, may comprise a screen of a POS system and/or software program or application (and/or of a controller application). The interface 700 may, for example, be powered and/or generated by a specially-programmed application that allows POS devices, components, and/or personnel (e.g., of a fulfillment facility 170a-n, 570 of FIG. 1 and/or FIG. 5 herein) to accept orders from customers (e.g., routed through and/or processed by a controller) for products and/or service at (and/or via) a venue (e.g., a venue where the POS is located). As shown in FIG. 7A, for example, the "User Administration" screen may allow POS personnel to create, edit, and/or manage preferences and/or settings descriptive of accounts for personnel that will or may interact with and/or utilize the interface 700 to accept, process, and/or fulfill customer orders. In some embodiments, such as in the case that personnel already have an account created (and/or create an account via the interface 700 of FIG. 7A), the personnel may login to the software and/or interface 700, such as by utilizing the login screen depicted in FIG. 7B.

[0115] In some embodiments, personnel may manage settings of the software and/or interface 700 with respect to a particular venue (e.g., a stadium) such as by utilizing the "Stadium Management" screen shown in FIG. 7C. According to some embodiments, such as by utilizing a "Concession Management" screen depicted in FIG. 7D, settings regarding a particular fulfillment station/facility (e.g., the "Concession #112") may be entered, viewed, and/or modified. In some embodiments, such as in the case that the interface 700 is utilized to facilitate and/or manage customer orders, a "Concession Fulfillment" screen such as shown in FIG. 7E may be displayed via the interface 700. The screen may include, for example, a listing of any orders assigned to the particular fulfillment facility (e.g., the Coca-Cola® order from the example of FIG. 6EE) and/or a "Start Order" button that may be utilized to begin the processing of the order at the fulfillment facility.

[0116] According to some embodiments, such as in the case that the "Start Order" button is selected and/or activated and/

or the order "AKJ" is selected, the interface 700 may display a screen with order details (e.g., to facilitate initiation of order preparation/fulfillment) and the status of the order may be changed to indicate that the order is being prepared (e.g., "Progress"; as shown in FIG. 7F). In some embodiments, such as in the case that the order is ready, the status of the order may be updated as shown in FIG. 7G to indicate that the order is ready. According to some embodiments, such as in the case that the "Checkout" button is selected, a pop-up screen such as shown in FIG. 7H may be provided to prompt the personnel to verify the desire to close-out the order—e.g., upon order fulfillment such as order pickup or delivery.

[0117] In some embodiments, the interface 700 may be utilized to manage inventory data for refreshment products (e.g., sodas and chips) offered for sale via the particular fulfillment facility, as depicted in FIG. 7I. Such information may be updated by POS personnel, for example, and stored in one or more databases (e.g., that may be accessible to a controller that allocates orders to fulfillment stations based at least in part on inventory of products). According to some embodiments, the interface 700 may also or alternatively be utilized to manage information indicative of inventory of merchandise, as shown in FIG. 7J.

[0118] While various components of the interfaces 600, 700 have been described with respect to certain labels, layouts, headings, titles, and/or configurations, these features have been presented for reference and example only. Other labels, layouts, headings, titles, and/or configurations may be implemented without deviating from the scope of embodiments herein. Similarly, while a certain number of tabs, information screens, form fields, and/or data entry options have been presented, variations thereof may be practiced in accordance with some embodiments.

[0119] F. Additional Embodiments

[0120] 1. Promotions and Pricing

[0121] In some embodiments, promotions may be "pushed" or served to customer at a venue based on real-time events occurring at the venue. Promotions for special items and/or certain products may, for example, be output to customers based on game events, scores, and/or other dynamic events at the venue. In some embodiments, dynamic promotion(s) may be sent to consumers based on actual sales results during an event/game and/or based on current, real-time inventory and/or predicted nature of demand. In some embodiments, products may be promoted to customers dynamically based on expiration dates and/or times to reducing spoilage by promoting products approaching expiration. In some embodiments, available historic venue merchandise and/or food sales data (by product category and seat/section number) may be utilized to forecast and/or set ticket prices (e.g., ticket and/or season ticket prices may be based at least in part on product and/or service sales data for certain seats, sections, or even customers or types of customers—e.g., higher merchandise sales sections may warrant decreased ticket prices since the venue is making good money on the seats already). In some embodiments, different customers within a common event, stadium, and/or other venue may be offered different pricing for the same (or similar products) based on profile information (e.g. students vs. alumni; east section vs. west section; home team vs. visiting team, season ticket holder vs. cash ticket). In some embodiments, pricing may be dynamically rendered based on time of game, outcome of game or event or funded and/or subsidized by a third-party. In some embodiments, available historic venue

sales data (e.g., by product category and seat/section number) may be utilized to influence seat upgrade offers to season ticket holders.

[0122] According to some embodiments, a robust, dynamic mechanism for a real-time application of various promotions within a remote electronic ordering system is provided. Such a mechanism may allow, for example, a real-time control for application of various promotions available in the system, such as, but not limited to: (i) an ability to apply different types of promotions such as percent variable, percent variable with cap, percent variable with floor, fixed price amount, and/or certain product premium items available in the service provider's menu, and premium product items supplied by the third party; (ii) an ability to apply promotional discounts to different basis, such as per order, per specific SKU item, per specific spending limit, etc.; (iii) an ability to differentiate and validate various promotions by events, portions of events (e.g., post-half-game), dates, times, promo codes, etc.; (iv) an ability to process conditional promotions such as next order, first order, orders over a certain price threshold amount, etc.; (v) an ability to either redeem promo codes generated via various mediums (e.g., e-mail, text message, newspaper, web, TV, radio, etc) or auto redeem when certain conditions are met; and/or (vi) an ability to vary application of promotions by location information such as region/states, stadium, venue type, event, event type, concession stand, customer, stadium seat section and row, service provider, product category and product itself, etc.

[0123] In some embodiments the “moment of the game” (e.g., impulse) may be leveraged to sell memorable event merchandise. For example: Jeter hits 3,000th hit—limited edition shirt—can only get by being at game, limited number. Merchandise could be specific price point or could be auctioned. In some embodiments, the system tracks event(s) (or plays) at game, stores event(s) and/or allows individual or friends of individuals to purchase merchandise or memorabilia based on that event. Item(s) could be limited in number or could be open number. Purchases could be limited to certain window of time from when event occurs or could also be open. For example, items could be purchased only within the 7th inning (right before Yankees win World Series) or could be open.

[0124] In some embodiments, events can use stats from sport or event to create specific new “events”; e.g., rookie of year stats, pitched a no-hitter (examples of when records are broken or achieved). Yankees are about to win World Series—be the first 200 people to buy limited edition World Series hat. Could be signed by players, special medallion or limited edition. Could apply to college/football/professional

[0125] 2. Purchasing

[0126] In some embodiments, subscription pricing of food and/or beverage may be offered. Customers may be offered, for example, the ability to purchase a subscription (for fixed or variable pricing) that gives consumers access to special pricing for food and beverage items within stadium/arena or event for one or multiple events. In some embodiments, some products ordered and sold via a mobile app can have different service requirements such as alcohol policy or product must be heated or chilled to certain temperature. In some embodiments, these service requirements must be adhered by the system accepting and fulfilling orders. Such enforcement can be built as a subsystem that monitors product service requirements during either check-out or order submission process or both and do one of the following three things (based on the

Alcohol policy enforcement type): (a) ‘Inform’: this is a less intrusive enforcement that includes a few purchase in-path messages that inform consumers about the alcohol policy in effect at a particular venue/event; (b) ‘Warn’: this is a more intrusive enforcement that includes a pop-up message or notification message sent to consumers that inform them about the alcohol policy in effect at a particular venue/event and requires an active awareness confirmation of the stated policy; (c) ‘Restrict’: this is the most restrictive enforcement that includes both hard validation and prevention of orders from submission that exceed allowable alcohol item limit.

[0127] In some embodiments, one of the alcohol policy requirements is a moment of time after which a food service provider should stop selling the alcohol containing beverage during an event. In order to enforce such a requirement, the system can provide a master switch capability as part of the concession/event management portal. It can be achieved as follows (for example): (i) place a dedicated action-button on the management portal where an access to it is granted only to the event manager, (ii) by clicking this button system will create a new record (either stop or resume selling alcohol—the text on the button should alternate between Stop and Resume) in the new database; (iii) the latest (by time stamp) record from this data table should be passed to the App so that when consumer view an alcohol containing item on the menu selection screen we can either remove the <select>-button (or its equivalent) from the screen or provide a note that this item is no longer available for selection due to alcohol policy in effect, or both; in any event, the system should not allow an order to be placed with any alcohol item in it post stop event timestamp; and/or (iv) use shopping cart validation mechanism on the shopping cart screen as follows: assess shopping cart on items containing alcohol and if contains them, then verify the latest timestamp record for subject event, and if it is to be stopped (vs. resumed) then notify consumer via message on the same screen and allow him to remove selected alcohol items but leave non-alcohol items in the cart. In any event, system would not allow an order to be placed with any alcohol item in it post-stop event timestamp.

[0128] In some embodiments, a robust, real-time, dynamic mechanism for fee calculation and/or splitting within a remote electronic ordering system is provided. Such a mechanism may allow, for example, real-time control of how to calculate various fees, such as, but not limited to: (i) an ability to calculate fee as a straight variable percent of the item price; (ii) an ability to calculate fee as a variable percent of the item price subject to either a flat cap or floor amount; (iii) an ability to calculate fee as a flat add-on amount; (iv) an ability to levy more than one fee (delivery add-on fee, for instance); (v) an ability to have different basis for calculating variable fee (item or order, for example); and/or (vi) an ability to vary fee by stadium, venue type, event, event type, concession stand, stadium seat section and row, service provider, product category and product itself.

[0129] In some embodiments, to enable a flexibility of the fee calculation control, the system would utilize a database where all dial settings are stored. These settings may include the following: (i) fee_calculation_id (bigint); (ii) fee_name (varchar); (iii) fee_description (varchar); (iv) fee_type_id (1—straight variable; 2—variable with cap; 3—variable with floor; 4—flat amount—can be stored in to new fee_type_lookup table); (v) fee_basis_id (1—for item-based calc; 2—order-based calc—can be stored in to new fee_basis_lookup table); (vi) fee_value (decimal.2)—decimal is helpful

for using P-type value; but for F-type value we would use lowest currency denomination—cents in US; (vii) fee_value_type (char)—P—for percent; F—for flat or fixed; (viii) fee_cap_value_amt (int—can be NULL); and/or (ix) fee_floor_value_amt (int—can be NULL).

[0130] Other fields in such a table may, for example, define the dimensions by which differentiation and control of the fee calculation parameters defined in the above fields is accomplished: (i) store_regexp_id (for REGEXP use); (ii) venue_type_regexp_id (for REGEXP use); (iii) event_regexp_id (for REGEXP use); (iv) event_type_regexp_id (for REGEXP use); (v) concession_stand_regexp_id (for REGEXP use); (vi) stadium_section_regexp_num (for REGEXP use); (vii) stadium_row_regexp_num (for REGEXP use); (viii) service_provider_regexp_id (for REGEXP use); (ix) product_category_regexp_id (for REGEXP use); (x) product_reg_exp_id (for REGEXP use); (xi) active_Flag (var—Y or N); (xii) effective_time (bigint); and/or (xiii) discontinue_time (bigint).

[0131] In some embodiments, a fee calculation process may have two main steps (example is based on StadiumVIP mobile app system): (1) upon customer entering the stadium or event (submitting his seat information), currently among other things, system validates his seat location and assign the concession stands available to a customer at the event. Once this is complete and prior to allowing customer's entrance, we have to add one more data retrieval request (via query from database table described above) and send all retrieved fee records (normally one or two records) to consumer's device along with entrance permission data (or if the fee calc resides only on the server side this query can be done during fee calc itself); The query should contain the following field filters (all this data elements related to a particular customer's stadium entrance are readily available to the system at this point): Store_regexp_id; Venue_type_regexp_id; Event_regexp_id; Event_type_regexp_id; Concession_stand_regexp_id; Stadium_section_regexp_num; Stadium_row_regexp_num; Service_provider_regexp_id; Active_Flag; Effective_time; Discontinue_time; (2) when customer selects items from the menu screen and click <Go To Cart> button, system would have to initiate a calculation of appropriate fee(s) for the shopping cart at hand.

[0132] In some embodiments, if more than one applicable fee record returned from the fee calculation control table, then system would evaluate and calculate each fee record separately by utilizing one of the method described above. At the end, system would just sum all resulted fees as they are additive for the shopping cart at hand. However, system may keep each fee total separately in order to state them separately on all communications with both customers and providers (check-out screen, emails, printed receipt, and the concession stand management portal).

[0133] In some embodiments, customers may split and/or share orders. Multiple orders may be grouped together to be paid by a single customer, for example, and/or a single order may be paid utilizing multiple payment methods (e.g., split 50/50 between two credit cards of two friends). In some embodiments, orders may be scheduled for specific times, dates, and/or events (e.g., every time a home-run is hit). In some embodiments, scheduled orders and/or other orders may comprise "re-orders" similar to prescription refills or the re-dialing of a telephone in the sense that order data and details are saved and accessed for the new order without requiring re-entry of data. This may be advantageous, for

example, by allowing a customer at a venue to press a button (e.g., "re-order") to simply submit a new order similar and/or identical to a previous order.

[0134] 3. Network Usage

[0135] A lot of today's real-time transactional systems rely on a dedicated channel or network bandwidth to process the orders. Most of these systems are usually processing orders from a few aggregators that are connected to a service provider or supplier's inventory via dedicated network lines/channels. Travel industry reservation systems being one example whereby a few on-line travel agencies connected to the airline/hotel inventory supply by the dedicated network lines. However, in truly mass market transactional systems achieving the real-time ordering and fulfillment capability especially during the peak demand time period is almost impossible to do due to limited, though dedicated in some cases, network bandwidth. Examples of this deficiency are plenty, including a well publicized order systems failure at both AT&T and Apple during the launch of i-Phone 4 product in early 2010.

[0136] In some embodiments, transactional data transmissions (from an order initiation points to order processing and fulfillment points and back) utilizing various communication vehicles available today in modern communication network infrastructure may be dynamically managed. As an example, a mobile phone application is the software residing on the mobile phone/device that allows consumers attending various games/events to place real-time orders for products (such as food, drinks, and merchandise) via wireless carriers' network to service provider's order-processing and fulfillment systems (all together the systems back-end). By placing an order, a consumer generates transactional data transmission that includes, among other things, menu item identification such as product id and description, menu item price, ordered quantity of each item, total order amount to be charged to his/her credit card, etc. In return, the back-end system generates transactional data transmission that includes order receipt confirmation, order status change (ready, on-hold, delayed, etc), and order fulfillment confirmation.

[0137] These data transmissions are sent to/from consumers via their devices' wireless carrier network. It's known that wireless carrier network capacity (bandwidth) among other things depends on the wireless communication cell towers (a.k.a. base station) capacity placed in the vicinity of mobile phone holders. As stadiums/arenas usually located on the outskirts of most cities/towns, the wireless tower coverage in these areas is usually sparse. This situation is aggravated even further when 40,000 to 100,000 event attendees want to use their mobile phone during a half break of the football game, for example. During such congested network times, the tower's capacity is so limited that making a phone call or regular data transmission is almost definitely not possible.

[0138] While these networks are engineered to handle increased volume of traffic, the sheer number of calls or/and picture/video/email data transmission would be far greater than bandwidth capacity for voice/data communications in the affected areas. Thus, enabling consumers to submit their real-time orders via a mobile device, even under such circumstances, may be of great importance and can be achieved by utilizing the embodiments described herein.

[0139] Although with voice-based phone services or data services being almost entirely unavailable due to TCH (Traffic Channels) saturation during spiked bandwidth demand, the SMS (short message service) messages would be still

successfully received in even the most congested regions/areas because the control channels (CCH) responsible for their delivery would remain available. Accordingly, SMS messaging is now viewed by many as a reliable (almost guaranteed) method of communication (or communication vehicle) when all other means appear unavailable.

[0140] Some embodiments utilize this architectural benefit of SMS network at many carriers by dynamically selecting a specific communication vehicle (from among data transmission vehicle, email transmission vehicle, and SMS transmission vehicle) to be engaged in sending real-time transactional data from customer's mobile device to the back-end system and back to consumers in automated fashion based on one or many input variables such as expected cost of data transmission, data expiration or age time, signal strength, packet or signal drop-off rate, etc.

IV. Networking

[0141] A. System Overview

[0142] Turning to FIG. 8, a block diagram of a system 800 according to some embodiments is shown. In some embodiments, the system 800 may comprise a controller 810 (such as the controller 110, 510 of FIG. 1 and/or FIG. 5 herein), a scoreboard 816 (such as the output device 418 of the apparatus 410 of FIG. 4 herein), a plurality of mobile customer devices 830a-d (such as the mobile customer devices 130, 530 of FIG. 1 and/or FIG. 5 herein), a network 850 (such as the network 150 of FIG. 1 herein), and/or a venue 880. According to some embodiments, the network 850 may comprise communication links to the controller 810, the scoreboard 816, and/or any or each of the plurality of mobile customer devices 830a-e, any or all of which may be communicatively connected to and/or via the communication links of the network 850. According to some embodiments, fewer or more components and/or various configurations of the depicted components may be included in the system 800 without deviating from the scope of embodiments described herein. In some embodiments, the components 810, 816, 830, 850, 880 may be similar in configuration and/or functionality to similarly named and/or numbered components as described with reference to the system 100 of FIG. 1, the methods 200, 300 of FIG. 2 and/or FIG. 3, and/or the processes 500, 502 of FIG. 5A and/or FIG. 5B, herein.

[0143] According to some embodiments, the system 800 may be configured to manage and/or facilitate communications between the various components 810, 816, 830, 850 to effectuate networking between fans/customers/attendees (not explicitly shown, but associated with the mobile customer devices 830a-e, for example) of the venue 880 (and/or of events held therein). The first mobile customer device 830a may, for example, communicate with the second mobile customer device 830b via the network 850. In some embodiments, the communication may involve issuing a friendly "challenge" to another fan of the venue, sharing media captured from a location of the first mobile customer device 830a, transmitting an indication of a gift (e.g., a gifted item from a venue fulfillment facility), communications that facilitate and/or comprise an interactive gaming session between fans, and/or other inter-fan communications.

[0144] In some embodiments, any or all of the mobile customer devices 830a-e may also or alternatively communicate outside of the network 850. The first mobile customer device 830a may communicate directly with the fourth mobile customer device 830d, for example, such as via Bluetooth®, IR,

RF, and/or other short-range and/or direct communications means (e.g., a cable). According to embodiments, the third mobile customer device 830c may communicate with the fifth mobile customer device 830e which may, for example, be located outside of the venue 880. In some embodiments, any or all communications amongst the mobile customer devices 830a-e may be routed through and/or processed by the controller 810. According to some embodiments, the controller 810 may select certain communications and/or communication content for display on the scoreboard 816. In such a manner, for example, fan-generated and/or selected content may be displayed via the scoreboard 816 at the venue 880.

[0145] While the network 850 is depicted in FIG. 8 as a single object, the network 850 may comprise any number, type, and/or configuration of networks that is or becomes known or practicable. According to some embodiments, the network 850 may comprise a conglomeration of different sub-networks and/or network components interconnected, directly or indirectly, by the components 810, 816, 830, 850 of the system 800. The network 850 may comprise one or more cellular telephone networks with communication links between the first mobile customer device 830a and the second mobile customer device 830b, for example, and/or may comprise the Internet, with communication links between the controller 810 and the third mobile customer device 830c, for example.

[0146] In some embodiments, the network 850 may comprise a LAN (wireless and/or wired) with communication links between the controller 810 and any or all of the mobile customer devices 830a-e (such as in the case that any such devices 810, 830a-e are located within close proximity—e.g., the same building, structure, and/or area, such as the venue 880). In some embodiments, the network 850 may comprise direct communications links between components 810, 816, 830 of the system 800. In some embodiments, the network 850 may comprise one or many other links or network components other than those depicted in FIG. 8. Any or all of the mobile customer devices 830a-d may be connected to the controller 810 via various cell towers, routers, repeaters, ports, switches, and/or other network components that comprise the Internet and/or a cellular telephone (and/or Public Switched Telephone Network (PSTN)) network, and which comprise portions of the network 850.

[0147] B. Methods

[0148] Turning to FIG. 9, a flow diagram of a method 900 according to some embodiments is shown. In some embodiments, the method 900 may be performed and/or implemented by and/or otherwise associated with one or more specialized computerized processing devices (e.g., the controller 110, 510, 810 and/or the mobile customer devices 130, 530, 830 of FIG. 1, FIG. 5A, FIG. 5B, and/or FIG. 8 herein), specialized computers, computer terminals, computer servers, computer systems and/or networks (e.g., the network 150, 850 of FIG. 1 and/or FIG. 8 herein), and/or any combinations thereof. In some embodiments, the method 900 may be embodied in, facilitated by, and/or otherwise associated with various input mechanisms and/or interfaces such as the interfaces 600, 700 described with respect to FIG. 6A, FIG. 6B, FIG. 6C, FIG. 6D, FIG. 6E, FIG. 6F, FIG. 6G, FIG. 6H, FIG. 6I, FIG. 6J, FIG. 6K, FIG. 6L, FIG. 6M, FIG. 6N, FIG. 6O, FIG. 6P, FIG. 6Q, FIG. 6R, FIG. 6S, FIG. 6T, FIG. 6U, FIG. 6V, FIG. 6W, FIG. 6X, FIG. 6Y, FIG. 6Z, FIG. 6AA, FIG. 6BB, FIG. 6CC, FIG. 6DD, FIG. 6EE, FIG. 6FF, FIG.

6GG, FIG. 6HH, FIG. 6II, FIG. 6JJ, FIG. 7A, FIG. 7B, FIG. 7C, FIG. 7D, FIG. 7E, FIG. 7F, FIG. 7G, FIG. 7H, FIG. 7I, and/or FIG. 7J herein.

[0149] In some embodiments, the method 900 may comprise receiving, (e.g., by an electronic controller) from a first mobile device of a first attendee of an event at a venue, an indication of a request to challenge a second attendee of the event, at 902. A “challenge”, as the term is utilized herein, may generally refer to any type of competition between fans/customers/attendees. Examples of challenges include but are not limited to, for example, a “bet” that certain events at the event/venue will or will not occur and/or a trivia question and/or other gaming competitions. In some embodiments, for example, a fan may challenge a friend at the venue, a random fan, and/or a computer (e.g., Artificial Intelligence (AI)). To identify the recipient of the challenge, the first attendee may enter a seat and/or section number, handle or nickname, friend and/or fan identifier, and/or select and/or take an image of the desired challenge recipient. In some embodiments, a system associated with the venue may suggest and/or select challenge recipients on behalf of the fan. Fans with similar interests (e.g., rooting for the same team), similar skill levels (e.g., for skill-based game challenges), and/or fans proximate to the challenging fan (e.g., fans in the same section and/or nearby or adjacent seats) may, for example, be selected and/or suggested by the system. In some embodiments, the challenge request may include an identification and/or selection or suggestion of a particular prize (or a menu of prize options) which the winner of the competition may earn.

[0150] According to some embodiments, the method 900 may comprise transmitting, (e.g., by the electronic controller and/or in response to the receiving of the indication of the challenge request) to a second mobile device of the second attendee of the event, an indication of the challenge request, at 904. In some embodiments, such as in the case that the two attendees are proximate to each other and/or in the case that the first attendee selects the second attendee as a recipient of the challenge, the transmitting may be accomplished directly from the first mobile device to the second mobile device (e.g., via Bluetooth®, IR, RF, and/or other short-range and/or line-of-sight communication methods). According to some embodiments, such as in the case that the system selects the second attendee and/or in the case that the second attendee is remote from the first attendee, the transmitting may be conducted through and/or via a controller and/or network.

[0151] In some embodiments, the method 900 may comprise receiving, (e.g., by the electronic controller) from the second mobile device of the second attendee of the event, an indication of an acceptance of the challenge request, at 906. In some embodiments, the acceptance may include an acceptance of the particular prize for which the competition is conducted and/or may include a counter-offer or even an “upping” of the ante.

[0152] According to some embodiments, the method 900 may comprise determining, (e.g., by the electronic controller and/or in response to the receiving of the indication of the acceptance of the challenge request) based on (i) stored challenge criteria relating to possible occurrences at the event and (ii) an actual occurrence at the event, whether either of the first or second attendees has won the challenge, at 908. In the case that the challenge is similar to a “bet”, for example, the controller (and/or other device) may store an indication of a rule defining the “bet”. The first attendee may “wager” (e.g., offer to buy) a Pepsi® for the second attendee if a first team

wins a game conducted at the venue, for example, in exchange for the second attendee agreeing to purchase a Pepsi® (or other product) for the first attendee if a second team wins the game at the venue. An application running on one or more of the mobile devices and/or the controller may store a trigger based upon which team wins the game at the venue and may determine based on such information (e.g., when it becomes available), which attendee (if either) has won the challenge. In some embodiments, the loser is automatically debited for the price of the particular prize and the winner is automatically credited for an amount equal to the particular prize and/or is otherwise provided the particular prize (e.g., given a redemption code and/or having the prize delivered to the winner).

[0153] In some embodiments, the method 900 may comprise selecting (e.g., by the electronic controller) a fulfillment facility at the venue that is capable of providing a particular prize to the winner of the challenge, at 910. As described in reference to the procedure at 206 of the method 200 from FIG. 2, for example, the controller may utilize specially-programmed logic and/or rules to select one of a plurality of available fulfillment stations via which the “order” for the prize should be fulfilled.

[0154] According to some embodiments, the method 900 may comprise causing (e.g., by the electronic controller) the particular prize to be provided to the winner of the challenge via the selected fulfillment facility at the venue, at 912. As described herein with reference to product ordering and/or sales at venues, for example, the winning attendee may pick up the prize at the selected fulfillment station or may have the prize delivered to the attendee (e.g., by a hocker or runner).

[0155] In some embodiments, challenges may include more than two attendees, customers, and/or fans (whether at the venue or not). Multi-party games may be conducted and/or facilitated by the controller, for example. According to some embodiments, multiple attendees may organize (or be organized) into one or more teams. Fans may organize or be categorized into (e.g., by the controller and based on fan data), for example, teams mimicking the professional teams that may be playing a game at the venue (e.g., the Orioles® v. the Yankees®). In some embodiments, third-party sponsors may subsidize and/or provide the challenge prize. The challenge itself may be sponsored by Pepsi®, for example, and/or may include challenge results being displayed via a scoreboard at the venue and/or distributed via a social networking site such as Facebook®.

[0156] According to some embodiments, fans may define “virtual” geo-cache prizes utilizing the systems described herein and/or as part of a challenge. A fan utilizing a mobile device at a venue, for example, may tag one or more locations at the venue to define them as virtual geo-caches of various objects and/or prizes. In such an embodiment, other fans, as part of the challenge, may be required to find the “hidden” objects and/or virtual products. In some embodiments, such as in the case that a challenge participant locates a hidden virtual product and/or prize, the system may award the “hidden” virtual prize to the participant by crediting the participant an amount equal to a price of the corresponding actual product and/or may otherwise provide a unit of the corresponding actual product to the participant. In some embodiments, location information descriptive of a location of the participant may be compared to stored virtual geo-cache information to verify that the hidden item has been “found”. In some embodiments, virtual items may be placed and/or

gifted without the need for the placing party/gifting party to travel to the actual location where the virtual item is placed. In some embodiments, the geo-cached locations can be anywhere—e.g., not limited to within a venue. One or more fans and/or other people may place virtual products at remote locations such as on top a mountain, for example, without ever having visited the location. In such a manner, virtual gifts (e.g., that are redeemable for actual corresponding products) may be placed for a mountain climber such that the climber earns great rewards (e.g., many gifts from many supporters of the climb) upon location verification and matching to the virtually-placed items.

V. Apparatus

[0157] Turning to FIG. 10, a block diagram of an apparatus 1030 according to some embodiments is shown. In some embodiments, the apparatus 1030 may be similar in configuration and/or functionality to the controllers 110, 510, 810, the fulfillment devices/facilities 170, 570, and/or the mobile customer devices 130, 530, 830 of FIG. 1, FIG. 5, and/or FIG. 8 herein. The apparatus 1030 may, for example, execute, process, facilitate, and/or otherwise be associated with the methods 200, 300, 900 of FIG. 2, FIG. 3, and/or FIG. 9 and/or with the process 500, 502 of FIG. 5A and/or FIG. 5B herein. In some embodiments, the apparatus 1030 may comprise a processor 1032, an input device 1034, an output device 1036, a communication device 1038, and/or a memory device 1040. Fewer or more components and/or various configurations of the components 1032, 1034, 1036, 1038, 1040 may be included in the apparatus 1030 without deviating from the scope of embodiments described herein.

[0158] According to some embodiments, the processor 1032 may be or include any type, quantity, and/or configuration of electronic and/or computerized processor that is or becomes known. The processor 412 may comprise, for example, an Intel® IXP 2800 network processor or an Intel® XEON™ Processor coupled with an Intel® E7501 chipset, available from Intel® Corporation of Santa Clara, Calif. In some embodiments, the processor 1032 may comprise an electronic processor such as an Intel® Core™ 2 Duo P8600 CPU also available from Intel® Corporation of Santa Clara, Calif. In some embodiments, the processor 1032 may execute instructions, such as instructions specially programmed into and/or for the processor 1032. The execution of the specially-programmed instructions may, for example, enable and/or facilitate the apparatus 1030 to operate in accordance with embodiments as described herein.

[0159] In some embodiments, the processor 1032 may comprise multiple inter-connected processors, microprocessors, and/or micro-engines. According to some embodiments, the processor 1032 (and/or the apparatus 1030 and/or other components thereof) may be supplied power via a power supply (not shown) such as a battery, an AC source, a DC source, an AC/DC adapter, solar cells, and/or an inertial generator. In the case that the apparatus 1030 comprises a server such as a blade server, necessary power may be supplied via a standard AC outlet, power strip, surge protector, and/or UPS device.

[0160] In some embodiments, the input device 1034 and/or the output device 1036 are communicatively coupled to the processor 1032 (e.g., via wired and/or wireless connections, traces, and/or pathways) and they may generally comprise any types or configurations of input and output components and/or devices that are or become known, respectively. The

input device 1034 may comprise, for example, a keyboard that allows an operator of the apparatus 1030 to interface with the apparatus 1030 (e.g., by an operator of a mobile computing device, such as to implement and/or interact with embodiments herein to purchase products at venues and/or conduct networking between fans). The output device 1036 may, according to some embodiments, comprise a display screen and/or other practicable output component and/or device. The output device 1036 may, for example, provide information, data, and/or images that permit a customer (e.g., a fan and/or event attendee) to purchase products at a venue and/or network (e.g., produce a customized event blog) with other customers. According to some embodiments, the input device 1034 and/or the output device 1036 may comprise and/or be embodied in a single device such as a touch-screen monitor.

[0161] In some embodiments, the communication device 1038 may comprise any type or configuration of communication device that is or becomes known or practicable. The communication device 1038 may, for example, comprise a NIC, a telephonic device, a cellular network device, a router, a hub, a modem, and/or a communications port or cable. In some embodiments, the communication device 1038 may be coupled to provide data to a central controller and/or to mobile customer devices, such as in the case that the apparatus 1030 is utilized by a customer of a venue to purchase products from and/or at the venue and/or conduct venue-related social networking via a customer's wireless and/or mobile device. According to some embodiments, the communication device 1038 may also or alternatively be coupled to the processor 1032. In some embodiments, the communication device 1038 may comprise an IR, RF, Bluetooth™, and/or Wi-Fi® network device coupled to facilitate communications between the processor 1032 (and/or the apparatus 1030) and another device (such as the controller 110, 510, 810 and/or the fulfillment devices 170a-n, 570 of FIG. 1, FIG. 5A, FIG. 5B, and/or FIG. 8 herein).

[0162] The memory device 1040 may comprise any appropriate information storage device that is or becomes known or available, including, but not limited to, units and/or combinations of magnetic storage devices (e.g., a hard disk drive), optical storage devices, and/or semiconductor memory devices such as RAM devices, ROM devices, SDR-RAM, Double DDR-RAM, and/or PROM. The memory device 1040 may, according to some embodiments, store one or more of stadium purchase instructions 1042-1 and/or stadium networking instructions 1042-2. In some embodiments, the stadium purchase instructions 1042-1 and/or stadium networking instructions 1042-2 may be utilized by the processor 1032 to provide output information via the output device 1036 and/or the communication device 1038 (e.g., transmitting of the challenge indication received at 902 and/or transmitting of the challenge acceptance received at 906 of the method 900 of FIG. 9).

[0163] According to some embodiments, the stadium purchase instructions 1042-1 may be operable to cause the processor 1032 to access and/or process personal data 1044-1. Personal data 1044-1 received via the input device 1034 and/or the communication device 1038 may, for example, be analyzed, sorted, filtered, decoded, decompressed, ranked, scored, plotted, and/or otherwise processed by the processor 1032 in accordance with the stadium purchase instructions 1042-1. In some embodiments, personal data 1044-1 may be utilized by the processor 1032 to facilitate and/or conduct processes and/or methods in accordance with the stadium

purchase instructions **1042-1** to facilitate and/or effectuate a customer's purchase of products and/or services from (or via) a venue as described herein. The stadium purchase instructions **1042-1** may, in some embodiments, interface with an application stored on and/or executed by a customer's mobile phone, for example, to facilitate the purchase and/or delivery of venue merchandise and/or refreshments from a customer's seat (or other location).

[**0164**] According to some embodiments, the stadium networking instructions **1042-2** may be operable to cause the processor **1032** to access and/or process one or more of the personal data **1044-1**, friend data **1044-2**, and/or media data **1044-3**. Personal data **1044-1**, friend data **1044-2**, and/or media data **1044-3** received via the input device **1034** and/or the communication device **1038** may, for example, be analyzed, sorted, filtered, decoded, decompressed, ranked, scored, plotted, and/or otherwise processed by the processor **1032** in accordance with the stadium networking instructions **1042-2**. In some embodiments, personal data **1044-1**, friend data **1044-2**, and/or media data **1044-3** may be utilized by the processor **1032** to facilitate and/or conduct processes and/or methods in accordance with the stadium networking instructions **1042-2** to facilitate, manage, and/or route or otherwise process communications between and/or amongst customers as described herein. The stadium networking instructions **1042-2** may, in some embodiments, interface with an application stored on and/or executed by a customer's mobile phone, for example, to facilitate networking between the customer and other customers at (e.g., other customers of the venue), associated with (e.g., third-party sponsors and/or sports organizations or news organizations), and/or remote from the venue (e.g., friends and/or family not attending the venue).

[**0165**] In some embodiments, the personal data **1044-1** may comprise any data descriptive of an attribute or characteristic of a customer. Personal data **1044-1** may be acquired during a registration processes (e.g., from the customer), for example, and may comprise identifying information such as address, name, e-mail address, preferences, payment accounts and/or information, passwords, etc. In some embodiments, the personal data **1044-1** may comprise data descriptive of the customer that is acquired via transactions conducted with the customer. Personal data **1044-1** may comprise, for example, customer preferences (empirical), sales history, customer "worth" (e.g., expected value), frequency of purchases, and/or previous or typical ordering locations (e.g., season ticket reserved box seats). In some embodiments, personal data **1044-1** may comprise information descriptive of social networking sites, accounts, profiles, activity, and/or preferences associated with the customer.

[**0166**] According to some embodiments, the friend data **1044-2** may comprise data descriptive of social networking "friends" of the customer. Such "friends" may, for example, comprise people (and/or customers) with profiles and/or accounts that are related to the customer's profile and/or account at a social networking website. The friend data **1044-2** may, in some embodiments, comprise data descriptive of an attribute or characteristic of a friend of the customer. According to some embodiments, the friend data **1044-2** may be similar in compilation to the personal data **1044-1**, except that it is descriptive of a characteristic associated with friends of the customer instead of the customer themselves. In some embodiments, friend data **1044-2** may be pulled (e.g., har-

vested) and/or acquired from one or more social networking sites and/or databases associated with the customer.

[**0167**] In some embodiments, the media data **1044-3** may comprise information descriptive of media captured and/or recorder by and/or selected by the customer. The media data **1044-3** may, for example, comprise information descriptive of and/or defining one or more pictures, sounds, video segments, graphics, logos, and/or other media that the customer provides via the apparatus **1030**. According to some embodiments, the media data **1044-3** may be input and/or recorded by the input device **1034** (e.g., a still and/or video camera). In some embodiments, as described herein, the media data **1044-3** may be utilized to create and/or edit a customized blog and/or social media page or profile associated with the customer's trip(s) to the venue.

[**0168**] While the apparatus **1030** is described with reference to specific quantities and types of components **1032**, **1034**, **1036**, **1038**, **1040**, variations in the quantities, types, and/or configurations of the components **1032**, **1034**, **1036**, **1038**, **1040** of the apparatus **1030** may be implemented without deviating from the scope of the embodiments described herein.

[**0169**] Any or all of the exemplary instructions and data types described herein and other practicable types of data may be stored in any number, type, and/or configuration of memory device **944** that is or becomes known. The memory device **1040** may, for example, comprise one or more data tables or files, databases, table spaces, registers, and/or other storage structures. In some embodiments, multiple databases and/or storage structures (and/or multiple memory devices **1040**) may be utilized to store information associated with the apparatus **1030**. According to some embodiments, the memory device **1040** may be incorporated into and/or otherwise coupled to the apparatus **1030** (e.g., as shown) or may simply be accessible to the apparatus **1030** (e.g., externally located and/or situated).

VI. Articles of Manufacture

[**0170**] Referring to FIG. **11A** and FIG. **11B**, perspective diagrams of exemplary data storage devices **1140a-b** according to some embodiments are shown. The data storage devices **1140a-b** may, for example, be utilized to store instructions and/or data such as the stadium ordering instructions **422-1**, the order allocation instructions **422-2**, the customer data **424-1**, the fulfillment data **424-2**, and/or the order data **424-3** as described in reference to FIG. **4** herein and/or the stadium purchase instructions **1042-1**, the stadium networking instructions **1042-2**, the personal data **1044-1**, the friend data **1044-2**, and/or the media data **1044-3** as described in reference to FIG. **10** herein. In some embodiments, instructions stored on the data storage devices **1040a-b** may, when executed by a processor (such as the electronic processor **412**, **1032** of FIG. **4** and/or FIG. **10**), cause the implementation of and/or facilitate any of the various methods **200**, **300**, **800** of FIG. **2**, FIG. **3**, and/or FIG. **8** and/or the processes **500**, **502** of FIG. **5A** and/or FIG. **5B**, described herein.

[**0171**] According to some embodiments, the first data storage device **1040a** may comprise a CD, CD-ROM, DVD, Blu-Ray™ Disc, and/or other type of optically-encoded disk and/or other computer-readable storage medium that is or becomes know or practicable. In some embodiments, the second data storage device **1040b** may comprise a USB key-fob, dongle, and/or other type of flash memory data storage device that is or becomes know or practicable. The data stor-

age devices **1040a-b** may generally store program instructions, code, and/or modules that, when executed by an electronic and/or computerized processing device cause a particular machine to function in accordance with embodiments described herein. In some embodiments, the data storage devices **1040a-b** depicted in FIG. **11A** and FIG. **11B** are representative of a class and/or subset of computer-readable media that are defined herein as “computer-readable memory” (e.g., memory devices as opposed to transmission devices). While computer-readable media may include transitory media types, as utilized herein, the term computer-readable memory is limited to non-transitory computer-readable media. In some embodiments, the data storage devices **1040a-b** depicted in FIG. **11A** and FIG. **11B** are representative of programs, instructions and/or data stored on one or more other types of computer-readable memory devices such as internal or external hard drives and/or flash memory.

VII. Rules of Interpretation

[0172] Numerous embodiments are described in this patent application, and are presented for illustrative purposes only. The described embodiments are not, and are not intended to be, limiting in any sense. The presently disclosed invention(s) are widely applicable to numerous embodiments, as is readily apparent from the disclosure. One of ordinary skill in the art will recognize that the disclosed invention(s) may be practiced with various modifications and alterations, such as structural, logical, software, and electrical modifications. Although particular features of the disclosed invention(s) may be described with reference to one or more particular embodiments and/or drawings, it should be understood that such features are not limited to usage in the one or more particular embodiments or drawings with reference to which they are described, unless expressly specified otherwise.

[0173] The present disclosure is neither a literal description of all embodiments of the invention nor a listing of features of the invention that must be present in all embodiments.

[0174] Neither the Title (set forth at the beginning of the first page of this patent application) nor the Abstract (set forth at the end of this patent application) is to be taken as limiting in any way the scope of the disclosed invention(s).

[0175] The term “product” means any machine, manufacture and/or composition of matter as contemplated by 35 U.S.C. §101, unless expressly specified otherwise.

[0176] The terms “an embodiment”, “embodiment”, “embodiments”, “the embodiment”, “the embodiments”, “one or more embodiments”, “some embodiments”, “one embodiment” and the like mean “one or more (but not all) disclosed embodiments”, unless expressly specified otherwise.

[0177] A reference to “another embodiment” in describing an embodiment does not imply that the referenced embodiment is mutually exclusive with another embodiment (e.g., an embodiment described before the referenced embodiment), unless expressly specified otherwise.

[0178] The terms “including”, “comprising” and variations thereof mean “including but not limited to”, unless expressly specified otherwise.

[0179] The terms “a”, “an” and “the” mean “one or more”, unless expressly specified otherwise.

[0180] The term “plurality” means “two or more”, unless expressly specified otherwise.

[0181] The term “herein” means “in the present application, including the specification, its claims and figures, and anything which may be incorporated by reference”, unless expressly specified otherwise.

[0182] The phrase “at least one of”, when such phrase modifies a plurality of things (such as an enumerated list of things) means any combination of one or more of those things, unless expressly specified otherwise. For example, the phrase at least one of a widget, a car and a wheel means (i) a widget, (ii) a car, (iii) a wheel, (iv) a widget and a car, (v) a widget and a wheel, (vi) a car and a wheel, or (vii) a widget, a car and a wheel.

[0183] The phrase “based on” does not mean “based only on”, unless expressly specified otherwise. In other words, the phrase “based on” describes both “based only on” and “based at least on”.

[0184] The term “whereby” is used herein only to precede a clause or other set of words that express only the intended result, objective or consequence of something that is previously and explicitly recited. Thus, when the term “whereby” is used in a claim, the clause or other words that the term “whereby” modifies do not establish specific further limitations of the claim or otherwise restricts the meaning or scope of the claim.

[0185] Where a limitation of a first claim would cover one of a feature as well as more than one of a feature (e.g., a limitation such as “at least one widget” covers one widget as well as more than one widget), and where in a second claim that depends on the first claim, the second claim uses a definite article “the” to refer to the limitation (e.g., “the widget”), this does not imply that the first claim covers only one of the feature, and this does not imply that the second claim covers only one of the feature (e.g., “the widget” can cover both one widget and more than one widget).

[0186] When an ordinal number (such as “first”, “second”, “third” and so on) is used as an adjective before a term, that ordinal number is used (unless expressly specified otherwise) merely to indicate a particular feature, such as to allow for distinguishing that particular referenced feature from another feature that is described by the same term or by a similar term. For example, a “first widget” may be so named merely to allow for distinguishing it in one or more claims from a “second widget”, so as to encompass embodiments in which (1) the “first widget” is or is the same as the “second widget” and (2) the “first widget” is different than or is not identical to the “second widget”. Thus, the mere usage of the ordinal numbers “first” and “second” before the term “widget” does not indicate any other relationship between the two widgets, and likewise does not indicate any other characteristics of either or both widgets. For example, the mere usage of the ordinal numbers “first” and “second” before the term “widget” (1) does not indicate that either widget comes before or after any other in order or location; (2) does not indicate that either widget occurs or acts before or after any other in time; (3) does not indicate that either widget ranks above or below any other, as in importance or quality; and (4) does not indicate that the two referenced widgets are not identical or the same widget. In addition, the mere usage of ordinal numbers does not define a numerical limit to the features identified with the ordinal numbers. For example, the mere usage of the ordinal numbers “first” and “second” before the term “widget” does not indicate that there must be no more than two widgets.

[0187] When a single device or article is described herein, more than one device or article (whether or not they cooperate) may alternatively be used in place of the single device or article that is described. Accordingly, the functionality that is described as being possessed by a device may alternatively be possessed by more than one device or article (whether or not they cooperate).

[0188] Similarly, where more than one device or article is described herein (whether or not they cooperate), a single device or article may alternatively be used in place of the more than one device or article that is described. For example, a plurality of computer-based devices may be substituted with a single computer-based device. Accordingly, the various functionality that is described as being possessed by more than one device or article may alternatively be possessed by a single device or article.

[0189] The functionality and/or the features of a single device that is described may be alternatively embodied by one or more other devices which are described but are not explicitly described as having such functionality and/or features. Thus, other embodiments need not include the described device itself, but rather can include the one or more other devices which would, in those other embodiments, have such functionality/features.

[0190] Devices that are in communication with each other need not be in continuous communication with each other, unless expressly specified otherwise. On the contrary, such devices need only transmit to each other as necessary or desirable, and may actually refrain from exchanging data most of the time. For example, a machine in communication with another machine via the Internet may not transmit data to the other machine for weeks at a time. In addition, devices that are in communication with each other may communicate directly or indirectly through one or more intermediaries.

[0191] A description of an embodiment with several components or features does not imply that all or even any of such components and/or features are required. On the contrary, a variety of optional components are described to illustrate the wide variety of possible embodiments of the present invention(s). Unless otherwise specified explicitly, no component and/or feature is essential or required.

[0192] Further, although process steps, algorithms or the like may be described in a sequential order, such processes may be configured to work in different orders. In other words, any sequence or order of steps that may be explicitly described does not necessarily indicate a requirement that the steps be performed in that order. The steps of processes described herein may be performed in any order practical. Further, some steps may be performed simultaneously despite being described or implied as occurring non-simultaneously (e.g., because one step is described after the other step). Moreover, the illustration of a process by its depiction in a drawing does not imply that the illustrated process is exclusive of other variations and modifications thereto, does not imply that the illustrated process or any of its steps are necessary to the invention, and does not imply that the illustrated process is preferred.

[0193] Although a process may be described as including a plurality of steps, that does not indicate that all or even any of the steps are essential or required. Various other embodiments within the scope of the described invention(s) include other processes that omit some or all of the described steps. Unless otherwise specified explicitly, no step is essential or required.

[0194] Although a product may be described as including a plurality of components, aspects, qualities, characteristics and/or features, that does not indicate that all of the plurality are essential or required. Various other embodiments within the scope of the described invention(s) include other products that omit some or all of the described plurality.

[0195] An enumerated list of items (which may or may not be numbered) does not imply that any or all of the items are mutually exclusive, unless expressly specified otherwise. Likewise, an enumerated list of items (which may or may not be numbered) does not imply that any or all of the items are comprehensive of any category, unless expressly specified otherwise. For example, the enumerated list “a computer, a laptop, a PDA” does not imply that any or all of the three items of that list are mutually exclusive and does not imply that any or all of the three items of that list are comprehensive of any category.

[0196] Headings of sections provided in this patent application and the title of this patent application are for convenience only, and are not to be taken as limiting the disclosure in any way.

[0197] “Determining” something can be performed in a variety of manners and therefore the term “determining” (and like terms) includes calculating, computing, deriving, looking up (e.g., in a table, database or data structure), ascertaining and the like.

[0198] It will be readily apparent that the various methods and algorithms described herein may be implemented by, e.g., appropriately and/or specially-programmed general purpose computers and/or computing devices. Typically a processor (e.g., one or more microprocessors) will receive instructions from a memory or like device, and execute those instructions, thereby performing one or more processes defined by those instructions. Further, programs that implement such methods and algorithms may be stored and transmitted using a variety of media (e.g., computer readable media) in a number of manners. In some embodiments, hard-wired circuitry or custom hardware may be used in place of, or in combination with, software instructions for implementation of the processes of various embodiments. Thus, embodiments are not limited to any specific combination of hardware and software

[0199] A “processor” generally means any one or more microprocessors, CPU devices, computing devices, micro-controllers, digital signal processors, or like devices, as further described herein.

[0200] The term “computer-readable medium” refers to any medium that participates in providing data (e.g., instructions or other information) that may be read by a computer, a processor or a like device. Such a medium may take many forms, including but not limited to, non-volatile media, volatile media, and transmission media. Non-volatile media include, for example, optical or magnetic disks and other persistent memory. Volatile media include DRAM, which typically constitutes the main memory. Transmission media include coaxial cables, copper wire and fiber optics, including the wires that comprise a system bus coupled to the processor. Transmission media may include or convey acoustic waves, light waves and electromagnetic emissions, such as those generated during RF and IR data communications. Common forms of computer-readable media include, for example, a floppy disk, a flexible disk, hard disk, magnetic tape, any other magnetic medium, a CD-ROM, DVD, any other optical medium, punch cards, paper tape, any other physical medium

with patterns of holes, a RAM, a PROM, an EPROM, a FLASH-EEPROM, any other memory chip or cartridge, a carrier wave, or any other medium from which a computer can read.

[0201] The term “computer-readable memory” may generally refer to a subset and/or class of computer-readable medium that does not include transmission media such as waveforms, carrier waves, electromagnetic emissions, etc. Computer-readable memory may typically include physical media upon which data (e.g., instructions or other information) are stored, such as optical or magnetic disks and other persistent memory, DRAM, a floppy disk, a flexible disk, hard disk, magnetic tape, any other magnetic medium, a CD-ROM, DVD, any other optical medium, punch cards, paper tape, any other physical medium with patterns of holes, a RAM, a PROM, an EPROM, a FLASH-EEPROM, any other memory chip or cartridge, computer hard drives, backup tapes, Universal Serial Bus (USB) memory devices, and the like.

[0202] Various forms of computer readable media may be involved in carrying data, including sequences of instructions, to a processor. For example, sequences of instruction (i) may be delivered from RAM to a processor, (ii) may be carried over a wireless transmission medium, and/or (iii) may be formatted according to numerous formats, standards or protocols, such as Bluetooth™, TDMA, CDMA, 3G.

[0203] Where databases are described, it will be understood by one of ordinary skill in the art that (i) alternative database structures to those described may be readily employed, and (ii) other memory structures besides databases may be readily employed. Any illustrations or descriptions of any sample databases presented herein are illustrative arrangements for stored representations of information. Any number of other arrangements may be employed besides those suggested by, e.g., tables illustrated in drawings or elsewhere. Similarly, any illustrated entries of the databases represent exemplary information only; one of ordinary skill in the art will understand that the number and content of the entries can be different from those described herein. Further, despite any depiction of the databases as tables, other formats (including relational databases, object-based models and/or distributed databases) could be used to store and manipulate the data types described herein. Likewise, object methods or behaviors of a database can be used to implement various processes, such as the described herein. In addition, the databases may, in a known manner, be stored locally or remotely from a device that accesses data in such a database.

[0204] The present invention can be configured to work in a network environment including a computer that is in communication, via a communications network, with one or more devices. The computer may communicate with the devices directly or indirectly, via a wired or wireless medium such as the Internet, LAN, WAN or Ethernet, Token Ring, or via any appropriate communications means or combination of communications means. Each of the devices may comprise computers, such as those based on the Intel® Pentium® or Centrino™ processor, that are adapted to communicate with the computer. Any number and type of machines may be in communication with the computer.

[0205] The present disclosure provides, to one of ordinary skill in the art, an enabling description of several embodiments and/or inventions. Some of these embodiments and/or inventions may not be claimed in the present application, but may nevertheless be claimed in one or more continuing appli-

cations that claim the benefit of priority of the present application. Applicants intend to file additional applications to pursue patents for subject matter that has been disclosed and enabled but not claimed in the present application.

What is claimed is:

1. A method, comprising:
 - receiving, by a centralized electronic processing device, an indication of an order for a unit of a product, the order being placed via a mobile device of a customer located at a venue;
 - determining, by the centralized electronic processing device, a subset of a plurality of facilities at the venue, wherein each facility of the subset is capable of fulfilling the order;
 - selecting, by the centralized electronic processing device and based on information indicative of a predicted order fulfillment time at each of the facilities of the subset, one of the facilities of the subset to fulfill the order;
 - transmitting, by the centralized electronic processing device, an indication of the order to the selected facility; and
 - transmitting, by the centralized electronic processing device and to the mobile device of the customer, an indication of the selected facility and an indication of an expected order fulfillment time for the order.
2. The method of claim 1, further comprising:
 - receiving, after the transmitting of the indication of the order to the selected facility, by the centralized electronic processing device and from the selected facility, an indication that order is ready; and
 - notifying the customer, via the centralized electronic processing device and in response to receiving the indication from the selected facility, that the order is ready.
3. The method of claim 2, wherein the order is a delivery-type order, further comprising:
 - notifying the customer, via the centralized electronic processing device and in response to receiving the indication from the selected facility, an estimated delivery time of the order.
4. The method of claim 1, wherein the determining of the subset comprises:
 - determining that an inventory level of the product at each facility of the subset is above a predetermined threshold.
5. The method of claim 1, wherein the determining of the subset comprises:
 - determining that each facility of the subset is authorized to provide the unit of the product.
6. The method of claim 1, wherein the determining of the subset comprises:
 - determining that each facility of the subset has one or more of (i) sales and/or (ii) profits, that meet predetermined threshold requirements.
7. The method of claim 1, wherein the information indicative of the predicted order fulfillment time at each of the facilities of the subset, comprises
 - information descriptive of a current volume of orders at each of the facilities of the subset.
8. The method of claim 1, wherein the information indicative of the predicted order fulfillment time at each of the facilities of the subset, comprises
 - information descriptive of a maximum volume of orders permitted at each of the facilities of the subset.
9. The method of claim 1, wherein the selecting, comprises:

selecting the one of the facilities of the subset to fulfill the order based on the selected one of the facilities of the subset having the quickest predicted order fulfillment time.

10. The method of claim 1, wherein the selecting is further based on a predicted delivery time of the order at each of the facilities of the subset.

11. The method of claim 10, wherein the selecting, comprises:

selecting the one of the facilities of the subset to fulfill the order based on the selected one of the facilities of the subset having the quickest: predicted order fulfillment time plus predicted delivery time.

12. The method of claim 1, further comprising:

receiving, from the mobile device of the customer, and indication of a location of the customer at the venue.

13. The method of claim 12, wherein the indication of the location of the customer comprises an indication of one or more of (i) a GPS coordinate of the customer and (ii) a seat number of the customer.

14. The method of claim 12, wherein the selecting, comprises:

selecting the one of the facilities of the subset to fulfill the order based on the selected one of the facilities of the subset being the shortest distance from the location of the customer.

15. The method of claim 14, wherein the distance comprises a rectilinear distance between the selected facility of the subset and the location of the customer.

16. The method of claim 1, wherein the selecting, comprises:

selecting the one of the facilities of the subset to fulfill the order based on a type of the facility.

17. The method of claim 16, wherein the selecting, comprises:

selecting the one of the facilities of the subset to fulfill the order based on a rule that specifies that browser-type facilities are to be selected first, runner-type facilities are to be selected second, and pickup-type facilities are to be selected last.

18. An apparatus, comprising:

an electronic processing device; and

a memory device in communication with the electronic processing device, the memory device storing specially-

programmed instructions that when executed by the electronic processing device result in:

receiving, by a centralized electronic processing device, an indication of an order for a unit of a product, the order being placed via a mobile device of a customer located at a venue;

determining, by the centralized electronic processing device, a subset of a plurality of facilities at the venue, wherein each facility of the subset is capable of fulfilling the order;

selecting, by the centralized electronic processing device and based on information indicative of a predicted order fulfillment time at each of the facilities of the subset, one of the facilities of the subset to fulfill the order;

transmitting, by the centralized electronic processing device, an indication of the order to the selected facility; and

transmitting, by the centralized electronic processing device and to the mobile device of the customer, an indication of the selected facility and an indication of an expected order fulfillment time for the order.

19. A method, comprising:

determining, by an electronic controller associated with a concession stand at a venue, information descriptive of a plurality of pending customer orders;

determining, by the electronic controller, information descriptive of a plurality of available delivery personnel;

allocating, by the electronic controller and based on the customer order information and the delivery personnel information, the plurality of pending customer orders amongst the plurality of available delivery personnel;

transmitting, by the electronic controller and to each delivery personnel of the plurality of available delivery personnel that is allocated one or more customer orders, an indication of the one or more customer orders; and

transmitting, by the electronic controller and to each customer, an indication of an expected delivery time for each customers' respective order.

20. The method of claim 19, wherein the information descriptive of the plurality of pending customer orders comprises information identifying locations of the respective customers and wherein the allocating is further based on rectilinear distances from the customers to the concession stand.

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