ABSTRACT

A computer that dynamically generates a customized second document is described. During operation, the computer receives information specifying activation of a hosted field in a document associated with a third party, where the information specifies a willingness to receive one or more messages from the computer and specifies a telephone number. In response, the computer dynamically generates the customized second document that includes information about one or more transactions (such as one or more upcoming events) of interest to an individual associated with the telephone number. Then, the computer sends a message to an address corresponding to the telephone number, where the message includes a link to the customized second document. Next, when the computer receives information specifying activation of the link from an electronic device, the computer provides information specifying the customized second document to the electronic device for display on the electronic device.

Intuit Inc. / IQX Corp.
Exhibit 1005
Page 1

CUSTOMER CAPTURE USING DYNAMICALLY GENERATED CUSTOMIZED WEBPAGES

DETAILED DESCRIPTION

[001] The described embodiments relate, generally, to techniques for performing transactions using dynamically generated customized webpages.

[002] The ease of use and widespread availability of networks, such as the Internet, have made it much easier for people to perform online transactions, such as purchasing products or services (which are sometimes referred to as 'e-commerce').

[003] However, the popularity of such online transactions has resulted in increased incidents of fraud and other criminal activity. This criminal behavior undermines people's trust and, thus, constrains people's willingness to conduct transactions via networks.

[004] Moreover, may webpages or websites have largely static content that is presented or served to all visitors. For example, visitors to a particular web site may be steered to a common landing webpage.

[005] While this one-size-fits-all approach is efficient and can be easily scaled, it often results in a cumbersome user experience, as visitors are forced to navigate through the content on a webpage or website in an attempt to find relevant or interesting information. Consequently, the negative user experience associated with many webpages and websites also restricts use and, thus, people's willingness to conduct transactions.

SUMMARY

[006] A first group of embodiments provides a computer for facilitating transactions. This computer includes an interface circuit that can communicate with an electronic device, memory that stores program instructions, and a processor that can execute the program instructions. During operation, the computer receives information specifying activation of a hosted field in a document associated with a third party, where the information specifies a willingness to receive one or more messages from the computer and specifies a telephone number. In response, the computer dynamically generates a customized second document that includes information about one or more

transactions (such as one or more upcoming events) of interest to an individual associated with the telephone number. Then, the computer sends a message to an address corresponding to the telephone number, where the message includes a link to the customized second document. Next, when the computer receives information specifying activation of the link from an electronic device, the computer provides information specifying the customized second document to the electronic device for display on the electronic device.

[007] Note that the document may be a third-party webpage. Moreover, the message may include a Short Message Service (SMS) message. Furthermore, the customized second document may include a webpage.

[008] Furthermore, the customized second document may allow completion of a given transaction in the one or more transactions, such as purchasing one or more tickets to an upcoming event. Additionally, the computer provides authentication information (such as an authentication cookie) to the electronic device to authenticate purchases. For example, a purchase request received by the computer from the electronic device and associated with the customized second document may be rejected if the authentication information is not stored on the electronic device. Note that the authentication information may be valid for a predefined time interval. After this predefined time interval has elapsed, the authentication information may expire.

[009] In some embodiments, after receiving the information specifying activation of the hosted field, the computer may confirm that the telephone number is included in a data structure prior to dynamically generating the customized webpage. If the telephone number is included in the data structure, the computer may proceed and dynamically generate the customized second document. Otherwise, the computer may confirm that the individual wants to receive the one or more messages prior to dynamically generating the customized second document.

[010] Moreover, the one or more transactions of interest to the individual may be associated with an entity (such as an event organizer), and the individual may have a subscription with the entity.

[011] Furthermore, when the computer receives a request message with a predefined code addressed to a second address corresponding to a second telephone number associated with the computer, the computer may dynamically generate a customized third document that includes information about one or more additional transactions of interest to the individual associated with

the telephone number. Then, the computer may provide a second message addressed to the address corresponding to the telephone number, where the second message includes a link to the customized third document. Note that the code may include an alphanumeric value.

[012] Another embodiment provides a computer-readable storage medium for use with the computer. This computer-readable storage medium includes program instructions for at least some of the operations performed by the computer.

[013] Another embodiment providing a method for dynamically generating a customized document. This method includes at least some of the operations performed by the computer.

[014] A second group of embodiments provides a computer that injects a host field into a document associated with a third party.

[015] Another embodiment provides a computer-readable storage medium for use with the computer. This computer-readable storage medium includes program instructions for at least some of the operations performed by the computer.

[016] Another embodiment provides a method for injecting a host field into a document associated with a third party. This method includes at least some of the operations performed by the computer.

[017] This Summary is provided merely for purposes of illustrating some exemplary embodiments, so as to provide a basic understanding of some aspects of the subject matter described herein. Accordingly, it will be appreciated that the above-described features are merely examples and should not be construed to narrow the scope or spirit of the subject matter described herein in any way. Other features, aspects, and advantages of the subject matter described herein will become apparent from the following Detailed Description, Figures, and Claims.

BRIEF DESCRIPTION OF THE FIGURES

[018] FIG. 1 is a block diagram illustrating an example of a system with electronic devices wirelessly communicating in accordance with an embodiment of the present disclosure.

[019] FIG. 2 is a flow diagram illustrating an example method for providing dynamically generating a customized document in accordance with an embodiment of the present disclosure.

Intuit Inc. / IQX Corp.
Exhibit 1005
Page 4

[020] FIG. 3 is a drawing illustrating example communication among the electronic devices in FIG. 1 in accordance with an embodiment of the present disclosure.

[021] FIG. 4 is a drawing illustrating an example of a continuous subscriber flow in accordance with an embodiment of the present disclosure.

[022] FIG. 5 is a drawing illustrating an example of a secured environment generator in accordance with an embodiment of the present disclosure.

[023] FIG. 6 is a drawing illustrating an example of the secured environment generator of FIG. 4 in accordance with an embodiment of the present disclosure.

[024] FIG. 7 is a drawing illustrating an example of the secured environment generator of FIG. 5 in accordance with an embodiment of the present disclosure.

[025] FIG. 8 is a block diagram illustrating an example of one of the electronic devices of FIG. 1 in accordance with an embodiment of the present disclosure.

[026] Note that like reference numerals refer to corresponding parts throughout the drawings. Moreover, multiple instances of the same part are designated by a common prefix separated from an instance number by a dash.

DETAILED DESCRIPTION

[027] A computer that dynamically generates a customized second document is described. During operation, the computer receives information specifying activation of a hosted field in a document associated with a third party, where the information specifies a willingness to receive one or more messages from the computer and specifies a telephone number. In response, the computer dynamically generates the customized second document that includes information about one or more transactions (such as one or more upcoming events) of interest to an individual associated with the telephone number. Then, the computer sends a message to an address corresponding to the telephone number, where the message includes a link to the customized second document. Next, when the computer receives information specifying activation of the link from an electronic device, the computer provides information specifying the customized second document to the electronic device for display on the electronic device.

Intuit Inc. / IQX Corp.
Exhibit 1005
Page 5

[028] By providing the dynamically generated customized second document, this communication technique facilitates secure performance of a given transaction in the one or more transactions. Moreover, the dynamically generated customized second document may include customized content that is relevant to the individual. This may allow the individual to directly access information that is of interest to them. Consequently, the communication technique may simplify the user experience, thereby increasing the likelihood that the individual conducts the given transaction. In the process, the communication technique may increase satisfaction of the individual and an entity associated with the one or more transactions, such as an event organizer.

[029] In the discussion that follows electronic devices and computers may include radios or, more generally, network interfaces that communicate packets or frames in accordance with one or more communication protocols, such as: an Institute of Electrical and Electronics Engineers (IEEE) 802.11 standard (which is sometimes referred to as 'Wi-Fi®,' from the Wi-Fi® Alliance of Austin, Texas), Bluetooth™ (from the Bluetooth Special Interest Group of Kirkland, Washington), a cellular-telephone communication protocol, another type of wireless interface, a wired network communication protocol (e.g., Ethernet, Ethernet II or an IEEE 802.3 standard, which are individually or collectively henceforth referred to as 'Ethernet') and/or another network communication protocol. For example, the cellular-telephone communication protocol may include or may be compatible with: a 2nd generation or mobile telecommunication technology, a 3rd generation of mobile telecommunications technology (such as a communication protocol that complies with the International Mobile Telecommunications-2000 specifications by the International Telecommunication Union of Geneva, Switzerland), a 4th generation of mobile telecommunications technology (such as a communication protocol that complies with the International Mobile Telecommunications Advanced specification by the International Telecommunication Union of Geneva, Switzerland), and/or another cellular-telephone communication technique. In some embodiments, the communication protocol includes Long Term Evolution or LTE. However, a wide variety of communication protocols may be used. In addition, the communication may occur via a wide variety of frequency bands. In the discussion that follows, Ethernet (which is sometimes referred to as a 'non-wireless communication technique' or protocol) is used as an illustrative example.

Intuit Inc. / IQX Corp.
Exhibit 1005
Page 6

[030] Communication among electronic devices is shown in FIG. 1, which presents a block diagram illustrating an example of a system 100 that includes electronic devices 110 (such as a computer, a portable electronic device, a cellular telephone, a tablet computer, a smartwatch, a wearable device, etc.), computer 112 (such as a cloud-based computer or server) and hosting computer 114 that communicate with each other using wired (or non-wireless communication) via network 116 (such as the Internet) and/or optional wireless communication via a cellular-telephone network 118 (e.g., via an optional base station 120), a wireless local area network (e.g., via an optional access point 122) and/or a another wireless communication technique. Note that the optional access point 122 may provide access to network 116, such as the Internet, via an Ethernet protocol, and may be a physical access point or a virtual or 'software' access point that is implemented on a computer or an electronic device.

[031] As described further below with reference to FIGs. 2-3, computer 112 may inject a hosted field into a document provided by hosting computer 114. For example, computer 112 may provide, via network 116, the hosted field for inclusion in a webpage associated with a third party (i.e., that is other than a provider of the communication technique), and that is provided, via network 116 and cellular-telephone network 118 (or the optional access point 122), by hosting computer to one of electronic devices 110 (such as electronic device 110-1). An application (such as a Web browser) executed in an environment of electronic device 110-1 (such as an operating system) may display the document. Note that the hosted field may allow a user of electronic device 110-1 (who is sometimes referred to as an 'individual') to indicate a willingness to receive one or more messages from computer 112 and that specifies a telephone number associated with electronic device 110-1.

[032] When the user activates the hosted field and provides the telephone number, electronic device 110-1 may provide, via network 116 and cellular-telephone network 118 (or the optional access point 122), information specifying activation of the hosted field in the document and the telephone number to hosting computer 114. In turn, hosting computer 114 may provide, via network 116, this information to computer 112.

[033] After receiving the information specifying activation of the hosted field in the document, computer 112 may dynamically generate a customized second document (such as a webpage)

that includes information about one or more transactions (such as one or more upcoming events) of interest to the individual associated with the telephone number. Then, computer 112 may send a message to an address corresponding to the telephone number, where the message includes a link to the customized second document. For example, the message may be sent via network 116 and cellular-telephone network 118 (or the optional access point 122). Note that the message may include a Short Message Service (SMS) message (which is sometimes referred to as a 'text message').

[034] Moreover, after receiving the message, electronic device 110-1 may display the message. If the individual activates the link, electronic device 110-1 may provide, via network 116 and cellular-telephone network 118 (or the optional access point 122), information specifying activation of the link to computer 112.

[035] When computer 112 receives information specifying activation of the link from electronic device 110-1, computer 112 may provide, via network 116 and cellular-telephone network 118 (or the optional access point 122), information specifying the customized second document to electronic device 110-1 for display on the electronic device (such as by the application executing on electronic device 110-1). Furthermore, as described further below, computer 112 may provide, via network 116 and cellular-telephone network 118 (or the optional access point 122), authentication information (such as an authentication cookie) to electronic device 110-1 to authenticate completion of a given transaction in the one or more transactions. Note that the authentication information may be valid for a predefined time interval, such as 1 day, a week or a month. After this predefined time interval has elapsed, the authentication information may expire.

[036] Additionally, the customized second document may allow completion of the given transaction in the one or more transactions, such as purchasing one or more tickets to an upcoming event. For example, the individual may interact with the customized second document to provide, via network 116 and cellular-telephone network 118 (or the optional access point 122), to exchange information with computer 112 to complete the transaction As noted previously, a purchase request received from electronic device 110-1 and associated with the customized second document may be rejected by computer 112 if the authentication information

is not stored on electronic device 110-1.

[037] In some embodiments, after receiving the information specifying activation of the hosted field, computer 112 may confirm that the telephone number is included in a data structure (such as a data structure with information about subscribers to a transaction service) prior to dynamically generating the customized webpage. For example, the one or more transactions of interest to the individual may be associated with an entity (such as an event organizer), and the individual may have a subscription with the entity. If the telephone number is included in the data structure, computer 112 may proceed and dynamically generate the customized second document. Otherwise, computer 112 may communicate, via network 116 and cellular-telephone network 118 (or the optional access point 122), with electronic device 110-1 to confirm that the individual wants to receive the one or more messages prior to dynamically generating the customized second document.

[038] Moreover, the individual may use electronic device 110-1 to request a dynamically generated customized third document. For example, electronic device 110-1 may provide, via network 116 and cellular-telephone network 118 (or the optional access point 122), a request message with a predefined code (such as an alphanumeric code) addressed to a second address corresponding to a second telephone number associated with computer 112. In response, computer 112 may dynamically generate the customized third document that includes information about one or more additional transactions of interest to the individual associated with the telephone number. Then, computer 112 may provide, via network 116 and cellular-telephone network 118 (or the optional access point 122), another message addressed to the address corresponding to the telephone number, where the other message includes a link to the customized third document.

[039] In these ways, the communication techniques may be used to facilitate the conducting of one or more transactions in a secure manner. Moreover, because an instance of the dynamically generated customized document is tailored, at a particular time, to the specific interests of the individual, the content included in the instance of the customized document may be more relevant to the individual and immediately actionable (without, e.g., requiring that the individual navigate to content that may be of interest to them). This capability may enhance the user

experience of the individual and may encourage the individual to perform one or more transactions. For example, the communication technique may enable a customer capture rate of 21.5%.

[040] As noted previous, in some embodiments communication among components in system 100 involves wireless communication. During the wireless communication, electronic devices 110, the optional base station 120 and/or the optional access point 122 may: transmit advertising frames on wireless channels, detect one another by scanning wireless channels, establish wireless connections (for example, by transmitting association requests), and/or transmit and receive packets or frames (which may include the association requests and/or additional information as payloads). Moreover, during the wired communication, electronic devices 110, computer 112, and/or the hosting computer 114 may receive packets or frames using a wired communication technique or protocol (e.g., Ethernet II or an IEEE 802.3 standard). In some embodiments, the optional base station 118 and/or the optional access point 122 may convert packets or frames that are received using the wired communication technique to a WLAN communication technique or protocol (such as an IEEE 802.11 standard or an LTE standard), and may wirelessly transmit the packets or frames. Similarly, the optional base station 118 and/or the optional access point 122 may: receive packets or frames using the WLAN communication technique; convert the packets or frames to the wired communication technique; and transmit the packets or frames. Thus, the optional base station 118 and/or the optional access point 122 may perform the functions of an access point.

[041] As described further below with reference to FIG. 8, electronic devices 110, computer 112, hosting computer 114, the optional base station 120 and/or the optional access point 122 may include subsystems, such as: a networking subsystem, a memory subsystem and a processor subsystem. In addition, electronic devices 110, computer 112, hosting computer 114, the optional base station 120 and/or the optional access point 122 may include radios 124 in the networking subsystems. (Note that radios 124 may be instances of the same radio or may be different from each other.) More generally, electronic devices 110, computer 112, hosting computer 114, the optional base station 120 and/or the optional access point 122 can include (or can be included within) any electronic devices with the networking subsystems that enable

electronic devices 110, computer 112, hosting computer 114, the optional base station 120 and/or the optional access point 122 to communicate with each other using wired communication (e.g., a non-wireless communication technique) and/or optional wireless communication. The optional wireless communication can comprise transmitting advertisements on wireless channels to enable electronic devices to make initial contact or detect each other, followed by exchanging subsequent data/management frames (such as association requests and responses) to establish a wireless connection, configure security options (e.g., Internet Protocol Security), and transmit and receive packets or frames via the wireless connection, etc.

[042] As can be seen in FIG. 1, wireless signals 126 (represented by a jagged line) are optionally transmitted from radio 124-1 in electronic device 110-1. These wireless signals are optionally received by at least the optional access point 122. Notably, electronic device 110-1 may optionally transmit packets. In turn, these packets may be optionally received by a radio 124-2 in the optional access point 122. This may allow electronic device 110-1 to wirelessly communicate information to the optional access point 122. While FIG. 1 illustrates electronic device 110-1 transmitting packets, note that electronic device 110-1 may also receive packets from the optional access point 122.

[043] In the described embodiments, processing of a packet or frame in electronic devices 110, the optional base station 120 and/or the optional access point 122 includes: receiving signals (such as wireless signals 126) with the packet or frame; decoding/extracting the packet or frame from the received signals to acquire the packet or frame; and processing the packet or frame to determine information contained in the packet or frame.

[044] Note that the communication among electronic devices 110, computer 112, the hosting computer 114, the optional base station 120 and/or the optional access point 122 may be characterized by a variety of performance metrics, such as: a data rate, a data rate for successful communication (which is sometimes referred to as a 'throughput'), an error rate (such as a retry or resend rate), a mean-square error of equalized signals relative to an equalization target, intersymbol interference, multipath interference, a signal-to-noise ratio, a width of an eye pattern, a ratio of number of bytes successfully communicated during a time interval (such as 1-10 s) to an estimated maximum number of bytes that can be communicated in the time interval

Intuit Inc. / IQX Corp.
Exhibit 1005
Page 11

(the latter of which is sometimes referred to as the 'capacity' of a channel or link), and/or a ratio of an actual data rate to an estimated data rate (which is sometimes referred to as 'utilization').

[045] In these ways, the communication techniques may provide an efficient and secure way for the individual to receive relevant content and to conduct one or more transactions.

[046] Although we describe the network environment shown in FIG. 1 as an example, in alternative embodiments, different numbers or types of electronic devices may be present. For example, some embodiments comprise more or fewer electronic devices. As another example, in another embodiment, different electronic devices are transmitting and/or receiving packets or frames. While electronic devices 110 and optional access point 122 are illustrated with a single instance of radios 124, in other embodiments electronic devices 110, optional access point 120 and/or another component in system 100 may include multiple radios.

[047] FIG. 2 presents a flow diagram illustrating example method 200 for dynamically generating a customized document, which may be performed by a computer (such as computer 112 in FIG. 1). During operation, the computer may receive information (operation 210) specifying activation of a hosted field in a document associated with a third party, where the information specifies a willingness to receive one or more messages from the computer and specifies a telephone number. Note that the document may be a third-party webpage.

[048] In response, the computer may dynamically generate a customized second document (operation 212) that includes information about one or more transactions (such as one or more upcoming events) of interest to an individual associated with the telephone number. Notably, the customized second document may include a webpage. In some embodiments, the one or more transactions of interest to the individual may be associated with an entity (such as an event organizer), and the individual may have a subscription with the entity.

[049] Then, the computer may send a message (operation 214) to an address corresponding to the telephone number, where the message includes a link to the customized second document. For example, the message may include a Short Message Service (SMS) message.

[050] Next, when the computer receives information (operation 216) specifying activation of the link from an electronic device, the computer may provide information (operation 218)

Intuit Inc. / IQX Corp.
Exhibit 1005
Page 12

specifying the customized second document to the electronic device for display on the electronic device.

[051] In some embodiments, the computer optionally performs one or more additional operations (operation 220). For example, the customized second document may allow completion of a given transaction in the one or more transactions, such as purchasing one or more tickets to an upcoming event. Consequently, the computer may selectively exchange information with the electronic device to perform the given transaction.

[052] Moreover, the computer may provide authentication information (such as an authentication cookie) to the electronic device to authenticate purchases. For example, a purchase request received by the computer from the electronic device and associated with the customized second document may be rejected if the computer does not receive information that indicates that the authentication information is stored on the electronic device. Note that the authentication information may be valid for a predefined time interval. After this predefined time interval has elapsed, the authentication information may expire.

[053] Furthermore, after receiving the information specifying activation of the hosted field (operation 210), the computer may confirm that the telephone number is included in a data structure prior to dynamically generating the customized webpage. If the telephone number is included in the data structure, the computer may proceed and dynamically generate the customized second document. Otherwise, the computer may confirm that the individual wants to receive the one or more messages prior to dynamically generating the customized second document.

[054] Additionally, when the computer receives a request message with a predefined code addressed to a second address corresponding to a second telephone number associated with the computer, the computer may dynamically generate a customized third document that includes information about one or more additional transactions of interest to the individual associated with the telephone number. Then, the computer may provide a second message addressed to the address corresponding to the telephone number, where the second message includes a link to the customized third document. Note that the code may include an alphanumeric value.

[055] In some embodiments of method 200 there may be additional or fewer operations. Moreover, there may be different operations. Furthermore, the order of the operations may be

changed, and/or two or more operations may be combined into a single operation or performed at least partially in parallel.

[056] FIG. 3 presents a drawing illustrating example communication between computer 112, hosting computer 114 and electronic device 110-1. During the communication, an interface circuit 316 in electronic device 110-1 may provide information 314 specifying activation of the hosted field in the document. For example, a user of electronic device 110-1 (such as an individual) may use a user-interface device 310 (such as a keyboard, a mouse, a touchpad, a touch-sensitive display, a voice interface, etc.) to activate 308 the hosted field in a webpage of the third party. Then, a processor 312 in electronic device 110-1 may provide information 314 to interface circuit 316 with an instruction or a command to communicate it to hosting computer 114.

[057] After receiving information 314, hosting computer 114 may provide it to computer 112.

[058] Then, after receiving information 314, an interface circuit 318 in computer 112 may provide it to processor 320 in computer 112. In response, processor 320 may dynamically generate a customized second document 322 (such as a customized second webpage) that includes information about one or more transactions of interest to the individual.

[059] Furthermore, processor 322 may instruct 324 interface circuit 318 to send a message 326 (such as an SMS message) to an address corresponding to the telephone number, where the message includes a link to the customized second document.

[060] This message may be received by interface circuit 316, which may forward it to processor 312 for display on a display 328 in electronic device 110-1. Next, the individual may use user-interface device 310 to activate 330 the link. When this occurs, processor 312 may provide information 332 to interface circuit 316 with an instruction or a command to communicate it to computer 112.

[061] When interface circuit 318 receives information 332 specifying activation of the link, interface circuit 318 may provide it to processor 320. In response, processor 320 may provide information 334 specifying the customized second document 322 to interface circuit 318. In response, interface circuit 318 may provide information 334 to electronic device 110-1.

[062] After receiving information 334, interface circuit 316 may provide it to processor 312, which displays customized second document 322 on display 328.

[063] While FIG. 3 illustrates operations with single or double-sided arrows corresponding, respectively, to unilateral or bilateral communication, in general a given operation in these drawings may involve unilateral or bilateral communication. Note that the communication between components in FIG. 3 may involve communication of one or more packets or frames.

[064] Moreover, while the preceding discussion illustrated communication of the information specifying activation of the hosted field to computer 112 via hosting computer 114, in other embodiments electronic device 110-1 communicates this information directly to computer 112.

[065] Furthermore, while SMS messaging was used in the preceding discussion, different communication channels may be used in other embodiments, e.g., email, Enhanced Messaging Service (EMS) and/or Multimedia Messaging Service (MMS).

[066] We now describe embodiments of the communication technique. In these embodiments, a 'client' may be a third-party ticket provider or any third-party service or event provider.

[067] Note that the communication technique may not simply provide a marketing channel for pre-existing content. Instead, the customized webpage (or website) may be created de novo for each customer. A given customer cannot hit their webpage without a specific link that is provided to the given customer, because the webpage does not exist before link is created and provided to given customer, there may not be another way to access the customized webpage. The customized webpage may be curated for the given customer (e.g., based on a specific industry, events, organizer, etc.). Moreover, the customized webpage may be updated based on user habits, history, preferences, information from third-party application programming interfaces (APIs), etc. The customized webpage may pull in or incorporate additional events that may be of interest to the given customer. In addition, the communication technique may provide controls and distribute payments. For example, computer 112 (FIG. 1) may create a link that is associated with its own webpage and that can be used to create or conduct a given transaction.

[068] In the communication technique, an Amplify Decision Delivery Processor (ADDP) may use a data structure to match, update orders, parse down information, compile links (such as HTML links), provide authorization and financial information.

Intuit Inc. / IQX Corp.
Exhibit 1005
Page 15

[069] In some embodiments, when a client encounters the communication technique, e.g., in an application, a continuous subscriber capture (CSC) input may be injected an input into a purchase form. Moreover, when a client installs the application, computer 112 (FIG. 1) may have access to information and, thus, the ability to sell a wide variety of their inventory.

[070] Subsequently, when the given customer encounters a CSC input (and, more generally, a hosted field) in a webpage associated with a client, they may select a box that indicates 'yes' they would like to receive text messages. This 'yes' input may be provided to the ADDP, which may check whether a telephone number of the given customer is included in the data structure.

[071] If their telephone number is in the data structure, the ADDP may send a text message to the given customer with a link with the customized page showing events of interest. Note that if an event organizer has one event, the customized webpage may only show one event. However, if the event organizer has many events, the customized webpage may show or include multiple events.

[072] Alternatively, if the given customer's telephone number is not in the data structure, the ADDP may send a text message to the given customer to confirm that they want to receive text messages.

[073] Furthermore, one or more vaults with financial information may be copied for future payments when the given customer conducts a transaction via their customized webpage.

[074] Additionally, the ADDP may create a 'hot' cookie that goes onto the given customer's cellular telephone for future payments. This cookie may expire, e.g., after 30 days.

[075] Note that the given customer can also access their user profile via the link in the text message.

[076] In some embodiments, the given customer can, at any time, get or receive a text message with a link to a customized webpage with events and/or user preferences by sending a text message with, e.g., a 5-digit short code to a telephone number associated with the ADDP. For example, the short code may be: an organizer name, a name of a provider of the communication technique (such as 'Amplify').

[077] The communication technique may address security flaws in existing approaches (such as SIM-case swapping or fraudulent use of a link, etc.). Notably, these problems may be addressed

by the use of the 'hot' cookie stored on the given customer's cellular telephone, because a fraudulent user that does not have the 'hot' cookie will not be able to access transaction information in the customized webpage or conduct a transaction when they activate the link. Thus, the 'hot' cookie may make it very difficult to game the communication technique. In order to thwart SIM swapping, in some embodiments the communication technique may include a biometric authentication operation, such as facial recognition or recognition of another biometric marker.

[078] Furthermore, the ADDP may conduct reviews to verify/validate customers and their information. For example, the ADDP may review customer subscriptions (such as the event organizers to which a given customer has subscriptions), customer telephone numbers, etc.

[079] FIG. 4 presents a drawing illustrating an example of a continuation of continuous subscriber flow 400. In some embodiments, the communication technique (which is sometimes referred to as 'Amplify') may be implemented in conjunction with a third-party API. Notably, a custom integration implementation of Amplify may be provided to the third-party API. This may involve access to Amplify being made available inside the third-party API platform to a client (such as an event organizer) that installs a software implementation of Amplify. Alternatively or additionally, the client may allow Amplify to access their client platform. For example, the client may provide access codes that enable the client to pass an identifier of their third-party API platform to ADDP. This may enable the client to create a client keyword (such as an organizer word or short code that can be texted to a telephone number associated with the ADDP (or computer 112 of FIG. 1) in ADDP, which may result in the client becoming an ADDP client. As an ADDP client, the client may gain access to the ADDP text messaging capability via an Amplify provider 3P messaging service.

[080] As a result of becoming an ADDP client, ADDP may inject a CSC input into client web-purchase forms generated by the third-party API platform. This may enable the client to allow their customers to trigger the CSC input to command ADDP to commence customer capture as an Amplify subscriber via a cellular telephone number (which is sometimes referred to as a 'subscriber number') input by a customer in client web-purchase forms generated by the third-party API.

Intuit Inc. / IQX Corp.
Exhibit 1005
Page 17

[081] ADDP may flag a subscriber identifier (ID) to the third-party API platform for future reference and action. For example, ADDP may trigger the 3P messaging service to send a text message with a unique e-commerce micro-website (e.g., a UEMWEB) abstract link (which was generated by ADDP). This micro-website may include client ticket purchase opportunities for the subscriber.

[082] When the subscriber clicks or activates a UEMWEB link, the UEMWEB abstract unpacks the client ticket purchase opportunities inside a Web browser on a cellular telephone of the subscriber. The UEMWEB may provide options to navigate through and choose to commence an e-commerce transaction.

[083] Note that ADDP may be how the client, the customers of the client that become an Amplify subscriber, and Amplify relate to each other through a matrix of conditions, abstracts and ordering of decisions. For example, an input received from a CSC input may contain the third-party API platform identifier and the customer telephone number. When the telephone number details are confirmed, they may become a subscriber in a data structure of ADDP for future actions.

[084] When checking the telephone number, the area code may be checked to geographically place and validate a location and area code of the telephone number. Moreover, if the telephone number is a land line, it may be purged. However, if the telephone number is a cellular-telephone number, continue.

[085] Then, whether the telephone number is in a data structure may be checked. If yes, a check whether the customer is currently subscribed or unsubscribed to Amplify for a current client may be performed. If yes, conditions are checked and acted upon. However, if no, an opt-in verification message may be sent. Note that conditional dependent occurrences may include determining if an opt-in message is needed.

[086] When opt-in occurs, the customer becomes a subscriber. Notably, a subscriber may be added to the Amplify data structure. Moreover, the subscriber may be flagged to the client, and the client thereafter may have access to the subscriber.

[087] During content delivery matching, the organization's attributes may be checked, such as a type, industry, events, inventory, etc. Moreover, subscriber preferences may be checked via the

Intuit Inc. / IQX Corp.
Exhibit 1005
Page 18

third-party API and/or a data structure of preferences/history, etc. Then, the relevant event details are pulled through the third-party API for compiling of abstracts. Next, the relevant content to be compiled in a packet is decided, such as: which partner's events, which specific events, single event, events list, etc. This information may be curated via third-party API(s). Furthermore, whether the subscriber is verified is checked and thereafter a trackable link is compiled. Additionally, the message may be sent to the subscriber. When the subscriber interacts with the content, an order may be created and updated accordingly in line with subscriber actions and available inventory in tandem with third-party API checks.

[088] During an Amplify security check and hold, the customer may: navigate to UEMWEB, undertake choosing ticket purchase options, provide financial information (such as credit-card details) in a UEMWEB purchase form, and may activate a command to commence an e-commerce transaction. After ADDP receives a command, it may trigger the 3P messaging service to send a, e.g., 4-digit PIN code to subscriber via MMS/SMS. This PIN code may be input into a purchase form during authorization to enable the subscriber to activate a command to commence a, e.g., credit-card charge. This may trigger payment processing.

[089] During payment processing, a secured financial environment generator may: require a client keyword, a client third-party API platform identifier and a subscriber telephone number to interoperate in order to drive encryption (such as UIE encryption), which allows an e-commerce transaction to commence. When these operations are confirmed and compiled, the secured financial environment generator may pass security checks, may provide authorization for the transaction to continue, and may place a packet containing UIE and PIN into a subscriber verified link.

[090] Moreover, the secured financial environment generator may generate a hot cookie that may include information specifying the keyword, client, subscriber, and protocol, and may place it and activate it in the purchase form.

[091] FIGs. 5-7 presents drawings illustrating an example of a secured environment generator 500.

[092] During authorization and processing, a hot cookie may be unpacked, which may allow financial information (such as credit-card charges) to process and pass authorization and

Intuit Inc. / IQX Corp.
Exhibit 1005
Page 19

processing. This may trigger ADDP to deliver financial information (such as credit-card details) to Vault 1, as well as Vault 2 based on partnership requirements in certain payment abstract scenarios. Moreover, it may enable credit-card charges to be made and completed. While this is occurring, a hold may be placed on the credit card (or another financial vehicle) of the customer.

[093] Next, ADDP may trigger the 3P messaging service to send a notification (such as an SMS message) to the subscriber with a link to purchased tickets as a result of a purchase confirmation and fulfillment details.

[094] Furthermore, ADDP may manage updating inventory of the client via the third-party API as a result of a purchase confirmation and fulfillment. ADDP may transfer credit-card charge receipts to one or more payees, such as the subscriber if they are the merchant of record. Alternatively, the third-party API may push the delivery payment receipt to the subscriber if they are the merchant of record.

[095] We now describe embodiments of an electronic device, which may perform the communication technique. FIG. 8 presents a block diagram of an example of an electronic device 800, such as one of: electronic devices 110, computer 112, hosting computer 114, optional base station 120 or optional access point 122. This electronic device includes processing subsystem 810, memory subsystem 812, and networking subsystem 814. Processing subsystem 810 includes one or more devices configured to perform computational operations. For example, processing subsystem 810 can include one or more microprocessors, application-specific integrated circuits (ASICs), microcontrollers, programmable-logic devices, one or more GPUs, and/or one or more digital signal processors (DSPs).

[096] Memory subsystem 812 includes one or more devices for storing data and/or instructions for processing subsystem 810 and networking subsystem 814. For example, memory subsystem 812 can include dynamic random-access memory (DRAM), static random-access memory (SRAM), a read-only memory (ROM), flash memory, and/or other types of memory. In some embodiments, instructions for processing subsystem 810 in memory subsystem 812 include: one or more program modules or sets of instructions (such as program instructions 822 or operating system 824), which may be executed by processing subsystem 810. For example, a ROM can store programs, utilities or processes to be executed in a non-volatile manner, and DRAM can

Intuit Inc. / IQX Corp.
Exhibit 1005
Page 20

provide volatile data storage, and may store instructions related to the operation of electronic device 800. Note that the one or more computer programs may constitute a computer-program mechanism, a computer-readable storage medium or software. Moreover, instructions in the various modules in memory subsystem 812 may be implemented in: a high-level procedural language, an object-oriented programming language, and/or in an assembly or machine language. Furthermore, the programming language may be compiled or interpreted, e.g., configurable or configured (which may be used interchangeably in this discussion), to be executed by processing subsystem 810. In some embodiments, the one or more computer programs are distributed over a network-coupled computer system so that the one or more computer programs are stored and executed in a distributed manner.

[097] In addition, memory subsystem 812 can include mechanisms for controlling access to the memory. In some embodiments, memory subsystem 812 includes a memory hierarchy that comprises one or more caches coupled to a memory in electronic device 800. In some of these embodiments, one or more of the caches is located in processing subsystem 810.

[098] In some embodiments, memory subsystem 812 is coupled to one or more high-capacity mass-storage devices (not shown). For example, memory subsystem 812 can be coupled to a magnetic or optical drive, a solid-state drive, or another type of mass-storage device. In these embodiments, memory subsystem 812 can be used by electronic device 800 as fast-access storage for often-used data, while the mass-storage device is used to store less frequently used data.

[099] Networking subsystem 814 includes one or more devices configured to couple to and communicate on a wired and/or wireless network (i.e., to perform network operations), including: control logic 816, an interface circuit 818 and a set of antennas 820 (or antenna elements) in an adaptive array that can be selectively turned on and/or off by control logic 816 to create a variety of optional antenna patterns or 'beam patterns.' (While FIG. 8 includes set of antennas 820, in some embodiments electronic device 800 includes one or more nodes, such as nodes 808, e.g., a pad, which can be coupled to set of antennas 820. Thus, electronic device 800 may or may not include set of antennas 820.) For example, networking subsystem 814 can include a Bluetooth networking system, a cellular networking system (e.g., a 3G/4G/5G network

such as UMTS, LTE, etc.), a universal serial bus (USB) networking system, a networking system based on the standards described in IEEE 802.9 (e.g., a Wi-Fi® networking system), an Ethernet networking system, and/or another networking system.

[0100] Networking subsystem 814 includes processors, controllers, radios/antennas, sockets/plugs, and/or other devices used for coupling to, communicating on, and handling data and events for each supported networking system. Note that mechanisms used for coupling to, communicating on, and handling data and events on the network for each network system are sometimes collectively referred to as a 'network interface' for the network system. Moreover, in some embodiments a 'network' or a 'connection' between the electronic devices does not yet exist. Therefore, electronic device 800 may use the mechanisms in networking subsystem 814 for performing simple wireless communication between the electronic devices, e.g., transmitting advertising or beacon frames and/or scanning for advertising frames transmitted by other electronic devices.

[0101] Within electronic device 800, processing subsystem 810, memory subsystem 812, and networking subsystem 814 are coupled together using bus 828 that facilitates data transfer between these components. Bus 828 may include an electrical, optical, and/or electro-optical connection that the subsystems can use to communicate commands and data among one another. Although only one bus 828 is shown for clarity, different embodiments can include a different number or configuration of electrical, optical, and/or electro-optical connections among the subsystems.

[0102] In some embodiments, electronic device 800 includes a display subsystem 826 for displaying information on a display, which may include a display driver and the display, such as a liquid-crystal display, a multi-touch touchscreen, etc. Display subsystem 826 may be controlled by processing subsystem 810 to display information to a user.

[0103] Electronic device 800 can also include a user-input subsystem 830 that allows a user of the electronic device 800 to interact with electronic device 800. For example, user-input subsystem 830 can take a variety of forms, such as: a button, keypad, dial, touch screen, audio input interface, etc.

Intuit Inc. / IQX Corp.
Exhibit 1005
Page 22

[0104] Electronic device 800 can be (or can be included in) any electronic device with at least one network interface. For example, electronic device 800 may include: a cellular telephone or a smartphone, a smartwatch, a wearable device, a tablet computer, a laptop computer, a notebook computer, a personal or desktop computer, a netbook computer, a media player device, an electronic book device, a smartwatch, a wearable computing device, a portable computing device, a consumer-electronic device, as well as any other type of electronic computing device having wireless communication capability that can include communication via one or more wireless communication protocols.

[0105] Although specific components are used to describe electronic device 800, in alternative embodiments, different components and/or subsystems may be present in electronic device 800. For example, electronic device 800 may include one or more additional processing subsystems, memory subsystems, networking subsystems, and/or display subsystems. Additionally, one or more of the subsystems may not be present in electronic device 800. Moreover, in some embodiments, electronic device 800 may include one or more additional subsystems that are not shown in FIG. 8. Also, although separate subsystems are shown in FIG. 8, in some embodiments some or all of a given subsystem or component can be integrated into one or more of the other subsystems or component(s) in electronic device 800. For example, in some embodiments program instructions 822 are included in operating system 824 and/or control logic 816 is included in interface circuit 818.

[0106] Moreover, the circuits and components in electronic device 800 may be implemented using any combination of analog and/or digital circuitry, including: bipolar, PMOS and/or NMOS gates or transistors. Furthermore, signals in these embodiments may include digital signals that have approximately discrete values and/or analog signals that have continuous values. Additionally, components and circuits may be single-ended or differential, and power supplies may be unipolar or bipolar.

[0107] An integrated circuit (which is sometimes referred to as a 'communication circuit') may implement some or all of the functionality of networking subsystem 814. This integrated circuit may include hardware and/or software mechanisms that are used for transmitting wireless signals from electronic device 800 and receiving signals at electronic device 800 from other electronic

devices. Aside from the mechanisms herein described, radios are generally known in the art and hence are not described in detail. In general, networking subsystem 814 and/or the integrated circuit can include any number of radios. Note that the radios in multiple-radio embodiments function in a similar way to the described single-radio embodiments.

[0108] In some embodiments, networking subsystem 814 and/or the integrated circuit include a configuration mechanism (such as one or more hardware and/or software mechanisms) that configures the radio(s) to transmit and/or receive on a given communication channel (e.g., a given carrier frequency). For example, in some embodiments, the configuration mechanism can be used to switch the radio from monitoring and/or transmitting on a given communication channel to monitoring and/or transmitting on a different communication channel. (Note that 'monitoring' as used herein comprises receiving signals from other electronic devices and possibly performing one or more processing operations on the received signals).

[0109] In some embodiments, an output of a process for designing the integrated circuit, or a portion of the integrated circuit, which includes one or more of the circuits described herein may be a computer-readable medium such as, for example, a magnetic tape or an optical or magnetic disk. The computer-readable medium may be encoded with data structures or other information describing circuitry that may be physically instantiated as the integrated circuit or the portion of the integrated circuit. Although various formats may be used for such encoding, these data structures are commonly written in: Caltech Intermediate Format (CIF), Calma GDS II Stream Format (GDSII) or Electronic Design Interchange Format (EDIF). Those of skill in the art of integrated circuit design can develop such data structures from schematic diagrams of the type detailed above and the corresponding descriptions and encode the data structures on the computer-readable medium. Those of skill in the art of integrated circuit fabrication can use such encoded data to fabricate integrated circuits that include one or more of the circuits described herein.

[0110] While some of the operations in the preceding embodiments were implemented in hardware or software, in general the operations in the preceding embodiments can be implemented in a wide variety of configurations and architectures. Therefore, some or all of the operations in the preceding embodiments may be performed in hardware, in software or both.

For example, at least some of the operations in the communication technique may be implemented using program instructions 822, operating system 824 (such as a driver for interface circuit 818) or in firmware in interface circuit 818. Alternatively or additionally, at least some of the operations in the communication technique may be implemented in a physical layer, such as hardware in interface circuit 818.

[0111] While examples of numerical values are provided in the preceding discussion, in other embodiments different numerical values are used. Consequently, the numerical values provided are not intended to be limiting.

[0112] In the preceding description, we refer to 'some embodiments.' Note that 'some embodiments' describes a subset of all of the possible embodiments, but does not always specify the same subset of embodiments.

[0113] The foregoing description is intended to enable any person skilled in the art to make and use the disclosure, and is provided in the context of a particular application and its requirements. Moreover, the foregoing descriptions of embodiments of the present disclosure have been presented for purposes of illustration and description only. They are not intended to be exhaustive or to limit the present disclosure to the forms disclosed. Accordingly, many modifications and variations will be apparent to practitioners skilled in the art, and the general principles defined herein may be applied to other embodiments and applications without departing from the spirit and scope of the present disclosure. Additionally, the discussion of the preceding embodiments is not intended to limit the present disclosure. Thus, the present disclosure is not intended to be limited to the embodiments shown, but is to be accorded the widest scope consistent with the principles and features disclosed herein.

Intuit Inc. / IQX Corp.
Exhibit 1005
Page 25

What is Claimed is:

1. A computer, comprising:

an interface circuit configured to communicate with an electronic device;

a processor coupled to the network interface and memory; and

the memory configured to store program instructions, wherein, when executed by the processor, the program instructions cause the computer to perform operations comprising:

receive information specifying activation of a hosted field in a document associated with a third party, wherein the information specifies a willingness to receive one or more messages from the computer and specifies a telephone number;

in response to receiving the information specifying the activation of the hosted field, dynamically generate a customized second document that includes information about one or more transactions of interest to an individual associated with the telephone number;

send a message to an address corresponding to the telephone number, wherein the message comprises a link to the customized second document; and

when the computer receives information, associated with the electronic device associated with the telephone number, which specifies activation of the link, provide information, intended for the electronic device, specifying the customized second document.

2. The computer of claim 1, wherein the document comprises a webpage associated with a third party.

3. The computer of claim 1, wherein the message comprises a Short Message Service (SMS) message.

4. The computer of claim 1, wherein the customized second document comprises a webpage.

5. The computer of claim 1, wherein the customized second document facilitates completion of a given transaction in the one or more transactions.

Intuit Inc. / IQX Corp.
Exhibit 1005
Page 26

6. The computer of claim 5, wherein the operations comprise providing authentication information intended for the electronic device to authenticate the given transaction; and

wherein the given transaction is rejected by the computer when the computer does not receive confirmation that the authentication information is stored on the electronic device.

7. The computer of claim 6, wherein the authentication information comprises an authentication cookie.

8. The computer of claim 6, wherein the authentication information is valid for a predefined time interval.

9. The computer of claim 1, wherein the operations comprise:

determining, after receiving the information specifying activation of the hosted field, whether the telephone number is included in a data structure prior to dynamically generating the customized webpage;

when the telephone number is included in the data structure, proceeding and dynamically generating the customized second document; and

otherwise, confirming that the individual wants to receive the one or more messages prior to dynamically generating the customized second document.

10. The computer of claim 1, wherein the one or more transactions of interest to the individual are associated with an entity, and the individual has a subscription with the entity.

11. The computer of claim 1, wherein the operations comprise:

receiving a request message associated with the electronic device, wherein the request message comprises predefined code addressed to a second address corresponding to a second telephone number associated with the computer;

dynamically generating a customized third document that comprises information about one or more additional transactions of interest to the individual associated with the telephone number; and

providing a second message addressed to the address corresponding to the telephone number, wherein the second message comprises a link to the customized third document.

12. A non-transitory computer-readable storage medium for use in conjunction with a computer, the computer-readable storage medium storing program instructions that, when executed by the computer, cause the computer to carrying out one or more operations comprising:

receiving information specifying activation of a hosted field in a document associated with a third party, wherein the information specifies a willingness to receive one or more messages from the computer and specifies a telephone number;

in response to receiving the information specifying the activation of the hosted field, dynamically generating a customized second document that includes information about one or more transactions of interest to an individual associated with the telephone number;

sending a message to an address corresponding to the telephone number, wherein the message comprises a link to the customized second document; and

when the computer receives information, associated with an electronic device associated with the telephone number, which specifies activation of the link, providing information, intended for the electronic device, specifying the customized second document.

13. The non-transitory computer-readable storage medium of claim 12, wherein the document comprises a webpage associated with a third party.

14. The non-transitory computer-readable storage medium of claim 12, wherein the message comprises a Short Message Service (SMS) message.

15. The non-transitory computer-readable storage medium of claim 12, wherein the customized second document comprises a webpage.

16. The non-transitory computer-readable storage medium of claim 12, wherein the customized second document facilitates completion of a given transaction in the one or more transactions;

wherein the one or more operations comprise providing authentication information intended for the electronic device to authenticate the given transaction; and

wherein the given transaction is rejected by the computer when the computer does not receive confirmation that the authentication information is stored on the electronic device.

17. The non-transitory computer-readable storage medium of claim 12, wherein the one or more operations comprise:

determining, after receiving the information specifying activation of the hosted field, whether the telephone number is included in a data structure of prior to dynamically generating the customized webpage;

when the telephone number is included in the data structure, proceeding and dynamically generating the customized second document; and

otherwise, confirming that the individual wants to receive the one or more messages prior to dynamically generating the customized second document.

18. The non-transitory computer-readable storage medium of claim 12, wherein the one or more transactions of interest to the individual are associated with an entity, and the individual has a subscription with the entity.

19. The non-transitory computer-readable storage medium of claim 12, wherein the one or more operations comprise:

receiving a request message associated with the electronic device, wherein the request message comprises predefined code addressed to a second address corresponding to a second telephone number associated with the computer;

dynamically generating a customized third document that comprises information about one or more additional transactions of interest to the individual associated with the telephone number; and

providing a second message addressed to the address corresponding to the telephone number, wherein the second message comprises a link to the customized third document.

20. A method for dynamically generating a customized second document, comprising:

by a computer:

receiving information specifying activation of a hosted field in a document associated with a third party, wherein the information specifies a willingness to receive one or more messages from the computer and specifies a telephone number;

in response to receiving the information specifying the activation of the hosted field, dynamically generating the customized second document that includes information about one or

more transactions of interest to an individual associated with the telephone number;

sending a message to an address corresponding to the telephone number, wherein the message comprises a link to the customized second document; and

when the computer receives information, associated with an electronic device associated with the telephone number, which specifies activation of the link, providing information, intended for the electronic device, specifying the customized second document.

Intuit Inc. / IQX Corp.
Exhibit 1005
Page 30