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(54) Title: PRODUCT DISTRIBUTION NETWORK

(57) Abstract: A product distribution network enables a user to easily order remote products. The user may encounter an advertisement and send a Product Request Message (PRM), identifying the advertiser or the product, to a service provider. The service provider may then charge a fixed-rate premium for the message and instruct a product provider to deliver the product. In one embodiment, a user may hear a song on the radio and send a short messaging service (SMS) text message to a mobile phone service provider. The SMS message may include the call letters of the radio station. The service provider may then access the radio station' s play list to identify the song currently playing. The service provider instructs an online music service to deliver the song to the user. The user is then charged a fixed premium rate for the text message, which is divided appropriately among the parties.

PRODUCT DISTRIBUTION NETWORK

BACKGROUND

[0001] This specification relates to the field of product distribution networks and more particularly to a method, device and network for queuing and delivering remote products.

[0002] Providers of services such as mobile telephone networks may enable users to send messages such as short messaging service (SMS) messages, also referred to herein as text messages. Text messages are routed to a destination, and in some cases, the service provider may charge a fixed-rate premium for text messages sent to a specific destination. For example, an audience viewing a popular competitive television program may use text messages to vote for a winner, and the service provider may charge a fixed-rate premium for those messages that is higher than the cost of a standard text message.

BRIEF DESCRIPTION OF THE DRAWINGS

[0003] **FIG. 1** is a network diagram of an embodiment of a product distribution network (PDN);

[0004] **FIG. 2** is a network diagram of an embodiment of a PDN wherein a radio station is a product advertiser;

[0005] **FIG. 3** is a network diagram of an embodiment of a product distribution network wherein a radio station is a product advertiser and a product provider;

[0006] **FIG. 4** is a network diagram of an embodiment of a PDN for distributing physical goods;

[0007] **FIG. 5** is a block diagram of an embodiment of a request handling device;

[0008] **FIG. 6** is a flow diagram showing an embodiment of a method of processing requests and delivering remote products;

[0009] **FIG. 7** illustrates exemplary text messages for use with a PDN;

[0010] **FIG. 8** illustrates exemplary metadata fields for use with a PDN;

[0011] **FIG. 9** is a network diagram of an embodiment of a PDN illustrating separate delivery of metadata and products; and

[0012] **FIG. 10** is a flow diagram showing an embodiment of a method of permitting a user to purchase metadata separately from a product.

SUMMARY OF THE DISCLOSURE

[0013] In one aspect, a disclosed product distribution network (PDN) may enable a user to order remote products. The user may encounter an advertisement and send a Product Request Message (PRM), identifying the advertiser or the product, to a PDN provider. The PDN provider may then charge a premium for the PRM and instruct a product provider to either deliver the product or make the product available. In one embodiment, a user may hear a song on the radio and send a PRM such as a short messaging service (SMS) message, also referred to herein simply as a text message to a PDN provider. The text message may include the call letters of the radio station. The PDN provider may then identify the applicable radio from the text message and access the radio station's play list to identify the currently playing song, a recently played song, or another song played by the radio station. The PDN provider may instruct an online music service to deliver the identified song to the user or make it available for download. The user may then be charged a premium for the message, which premium may be divided appropriately among the parties. The premium may be a fixed-rate premium or may be determined by some other appropriate method.

DETAILED DESCRIPTION OF THE EMBODIMENTS

[0014] In one aspect, the present specification describes a PDN that enables users of a service to order remote products that are advertised by a product advertiser. Many of the service users will carry a wireless communication device that can act as a messaging device. The wireless communication devices may be implemented as mobile telephones, personal digital assistants (PDAs), handheld computers and pagers. When the service user encounters an advertisement and decides to order the product, the user can send a message, called a Product Request Message (PRM) to a PDN provider. For example, the PRM may be a text message sent over short messaging service (SMS) or any other messaging service such as enhanced messaging service (EMS), in which case the destination may be a telephone

number. In another example, the PRM may be an instant message (IM), in which case the destination may be a screen name.

[0015] When the user sends the PRM to the destination, it may be first received by a communications service provider (CSP), which provides the messaging service over which the user sent the PRM. For example, the CSP may be a telephone company providing mobile phone service, or it may be an internet service provider (ISP) that provides IM services. The PDN provider may be in cooperation with the product advertiser, a product provider, or both. Because certain embodiments allow the user to send only a minimal message, cooperation with the content advertiser or a metadata provider may be needed to fill in missing data based on inherent properties of the message as sent. Once the missing data have been filled in, a product request can be sent to the product provider, who can either deliver the actual product to the user, or make it available.

[0016] One exemplary embodiment of a PDN recognizes that one inherent effect of radio broadcasts, including over-the-air, digital, and satellite, is to advertise the songs that are played on the broadcast. So when a user hears a song on the radio, the user may decide to download the song. The present PDN allows the user to do so by sending a PRM in the form of a text message or other form of simple message to a number associated with the PDN. The text message may include nothing more than the call letters of the radio station that the user was listening to. The PDN provider may then query a metadata provider to retrieve the radio station's play list to determine what song was playing when the message was sent. After determining what song was playing, the PDN provider may send a confirmation message to the user to confirm that the user actually intends to purchase the song. The user's affirmative response to the confirmation message may constitute a so-called "double opt-in" (meaning that the user has two separate opportunities to ensure that the request is right), which may be required by law in some cases. After the double opt-in, the service provider may then instruct an online music service to deliver or make available the requested song as a digital download. The mode of delivery may be any of various means, such as "pushing" the content out to the user's broadband-connected media device (such as a computer or portable music player) or providing a hyperlink to the download in a message or e-mail.

[0017] Because online music services may provide fixed-price content (for example, one popular service sells all of its songs at a fixed price of $0.99), billing can be

simplified by charging the user a premium for the PRM and then dividing the proceeds, as appropriate, between the PDN provider, the CSP, the product advertiser, and/or the product provider. For example, the PDN provider may charge a fixed premium of $1.25 for all messages confirming the purchase of a downloadable song. Users may be willing to pay $0.26 extra for the convenience and immediacy of the order. The PDN provider may divide the $0.26 between itself, the CSP, and the product advertiser, and/or may negotiate a discounted price with the online music service to further increase profits.

[0018] In an extension of the embodiment described above, the fixed-rate premium may be variable or temporally variable depending on what is being broadcast at different times. For example, in one time block, the radio station may be broadcasting music, so that anything ordered during that time is billed at $1.25. Later, the station may go to a commercial break. Certain of the goods or services advertised during the break may be available over the PDN, and during the time block when those commercials are played, PRMs will be charged a premium corresponding to the advertised good or service. So, for example, during a commercial break, the radio station may air advertisements for a car detail service, a restaurant, and a new book. During any of those commercials, the user may send a text message with the radio station's call letters, and receive, respectively, a coupon for the detail service, a gift card for the restaurant, and a copy of the new book. During each of those segments, the premium rate charged for a text message is adjusted to reflect the cost of the good or service.

[0019] From the user's perspective, billing is greatly simplified. The premium is simply added to the user's regular, periodic bill from the CSP. The user does not need to have any relationship with the radio station except to know its call letter, and the user does not need to have an established account with the PDN provider or product provider. In fact, the user does not even need to know whom the product came from. There is no need to have accounts with multiple providers or try to locate the one with the desired product. The product simply "shows up," and the user pays the bill when it comes.

[0020] From the perspective of the providers, is the disclosed subject matter includes an ability to reach a large target audience that listens to broadcast radio. And because users may be willing to pay more for the convenience of the service, profits can be increased.

[0021] In a similar embodiment, the product advertiser may be a television station. The network may operate similar to the operation for a radio station, but instead of songs, movies or episodes of television shows may be delivered to the user.

[0022] In yet another exemplary embodiment, metadata and the product may be sold in two separate steps. For example, a PDN provider may contract with a music licensing agent to acquire licenses, either in bulk or on-demand, for digital music files. The PDN provider may also provide an online service, where users may optionally sign up and provide a credit card for billing purposes. The online service may include an "inbox" where messages and links may be stored. At some point, a user may be listening to a radio station such as "WPTO" and hear a new song that the user wants to purchase. The user may then send a text message, which acts as a PRM, to number 12345, which is assigned to a PDN provider. The text of the message may be simply "WPTO," identifying the station playing the song that the user wants to identify or purchase. The PDN provider may then query a metadata provider, which may be a service that monitors radio stations such as WPTO to determine which songs are playing at certain times. The PDN provider may then send a response text message giving the user two options: Either to purchase the metadata or to cancel. If the user cancels, and if the user has an existing account with the PDN provider, a message may be sent to the user's inbox to give the user the option of later purchasing the metadata. On the other hand, if the user opts to purchase the metadata through the text message interface, then the user may be charged a premium rate for the response message, for example $0.99, which may be added to the user's mobile service bill. The user may then receive a new message, informing the user, for example, "You are listening to 'Continuation Nation' by Jerome." In some embodiments, other metadata may be provided, such as album information, release date, record label, and position on music charts by way of non-limiting example. If the user has an existing account with the PDN provider, a message may also be sent to the user's inbox with the content of the metadata.

[0023] Embedded in the metadata message may be options to purchase the song for an additional fee. For example, a first option may be to purchase the song with premium message billing for a first additional amount, for example $1.99, in which case the return message will be billed as a premium message, and the fee will be added to the user's mobile service bill. If the user does not have an existing account, the PDN provider may then provide

a text message with a uniform resource locator (URL) link from which the song can be downloaded at a later time. If the user has an account with the PDN provider, a URL link may also be sent to the user's inbox. If the account includes an existing credit card number, a second option may be to purchase the song for a second additional amount, for example $1.49, which may be charged to the user's credit card. In this case, a URL link for downloading the song may be sent to either or both of the mobile phone via text message and the user's inbox. Finally, the user may be given a third option to cancel, in which case there may be no additional charges. If the user cancels, and if the user has an existing online account with the PDN provider, a URL link may be added to the user's online account to provide an opportunity to purchase the song later.

[0024] The user's online account with the PDN provider may also provide other services. As a first example, if the user chooses to purchase metadata but not the song identified by the metadata, a message in the inbox may provide, along with the metadata, links to music download services on which the song is available. The links may include comparative pricing information, and may provide links to alternative versions such as live concert recordings or dance mixes. As a second example, the PDN provider may provide a real-time streaming service which could allow the user to stream purchased music from any internet-connected computer. This could allow the user to have instant access to purchased content even when not at his or her primary computer.

[0025] In other exemplary embodiments, users may be exposed to other forms of advertising. For example, a PDN may enable a user to order goods from a catalog or other advertisement for physical products. The goods may be identified by product codes, which may be limited to seven or fewer numbers so that they are easy to enter. Each good may then be ordered by sending a PRM wherein the content of the PRM includes or consists entirely of the product code. To preserve the fixed-rate billing model, goods may be divided into certain price classes, with a different phone number being used to order goods from different price classes. For example, users may send a message to Number A to order goods costing $9.99, Number B to order goods costing $19.99, and Number C to order goods costing $29.99. If non-fixed-rate billing is desirable, then the content advertiser may provide the service provider with metadata that includes not only an identification of the product, but also a price.

In this case, the confirmation message may include a confirmation of the charge, and the proper premium may be applied to the confirmation message.

[0026] In yet another exemplary embodiment, goods with variable prices may be advertised with a product code that includes an embedded price code. The price code can be decoded from the message, and the proper premium can then be applied.

[0027] In yet another exemplary embodiment, product codes may be replaced by identifiers inherent to the product. For example, books may include a Library of Congress number. A user who encounters the book may send a PRM with the Library of Congress number. In this case, the product advertiser and metadata provider may be one entity that correlates Library of Congress numbers to available books and identifies a product provider that carries the requested book. The book may then be provided as either a physical delivery or as an electronic book.

[0028] A PDN will now be described with more particular reference to the attached figures. Hereafter, details are set forth by way of example to facilitate discussion of the disclosed subject matter. It should be apparent to a person of ordinary skill in the field, however, that the disclosed embodiments are exemplary and not exhaustive of all possible embodiments. Throughout this disclosure, a hyphenated form of a reference numeral refers to a specific instance or example of an element and the un-hyphenated form of the reference numeral refers to the element generically or collectively. Thus, for example, widget **102-1** may refer to a "pen," which may be an instance or example of the class of "writing implements." Writing implements may be referred to collectively as "writing implements **102**" and any one may be referred to generically as a "writing implement **102**."

[0029] **FIG. 1** depicts selected elements of an embodiment of a PDN **100** for processing requests and delivering remote products. A user **110** may encounter an advertisement **132** provided by a product advertiser **130**. User **110** may then operate a messaging device **120**. Messaging device **120** may be a wireless communication device such as a mobile phone, a personal digital assistant (PDA), a hand-held computer, or any other wireless network-aware device adapted to send and receive messages. In other embodiments, messaging device 120 may communicate via a wireline connection.Messaging device **120** communicates with a messaging network **122**, which may be a wireless messaging network.

Over the messaging network **122**, messaging device **120** sends a product request message (PRM) **124** to a PDN provider **170**. PRM 124 may be handled by CSP **140**, which provides message routing **144**. In some embodiments, PRM **124** includes information that identifies or is otherwise indicative of a requested product **152**. PDN provider **170** may communicate with metadata provider **180** and product provider **150**. Metadata provider **180** may monitor product advertiser **130** or be otherwise associated therewith. As depicted in FIG. 1, metadata provider **180** provides metadata **182** to PDN provider **170**. Metadata **182** may enable CSP **140** to identify requested product **152**. When PDN provider **170** has identified the requested product **152**, PDN provider **170** may send a confirmation message **146**, thus providing a double opt-in method for requesting product **152**. In response to either PRM **124** or confirmation message **146**, CSP **140** may apply premium billing **142** to the user's service account **148** and remit all or a portion thereof to PDN provider **170** according to an agreement. Service provider **140** may then generate and deliver a product request **172** identifying requested product **152** to product provider **150**. In response to receiving or otherwise detecting product request **172**, product provider **150** may deliver requested product **152** to a product delivery address **160**. In an alternative embodiment, product provider **150** may also fill the role of PDN provider **170**.

[0030] **FIG. 2** illustrates selected elements of an exemplary embodiment of a PDN **100** useful for ordering or otherwise acquiring digital music. In the depicted embodiment, user **110** may be listening to radio station WPTO **130-2**. User **110** will hear radio broadcast **132-2** which may include a song that user **110** wants to download. Using messaging device **120-2**, which may be a mobile phone in this case, user **110** sends a PRM **124-2**, which may be an SMS or other type of text message, and which is routed via messaging network **122** to PDN provider **170** by mobile service provider **140-2**. Mobile service provider **140-2** may comprise more than one entity, for example it may include both a mobile phone company and a messaging gateway service. Mobile service provider **140-2** may apply a time stamp to the message **124-2** and deliver message **124-2** to PDN provider **170**. PDN provider **170** may then request and receive metadata **182** from metadata provider **180**. Metadata **182** may include a data structure containing information uniquely identifying one ore more songs played by a radio station, and further including time information indicating when at least one of the songs was played. An example is shown as **801-1 (FIG. 8)**. PDN provider **170** can then identify which song radio station WPTO **130-2** was playing when PRM **124-2** was sent. PDN

provider **170** may then send product request **172**, in which the requested product **152-2** is the identified song. Digital music service **150-2** may receive product request **172** and provide the requested product **152-2**, which is the identified song, for download to the user's media device **160-2**. In an alternative to this embodiment, digital music service **150-2** may also act as PDN provider **170**.

[0031] **FIG. 3** provides another alternative embodiment of PDN **100.** In this embodiment, radio station WPTO **170-2** may maintain a digital music library **150-3**, including digital copies of songs that it regularly plays, and an internal play list **182-3**. In this embodiment, radio station WPTO **170-2** encompasses the functions of product advertiser, metadata provider and PDN provider. This configuration illustrates that any combination of CSP, product advertiser, PDN provider, and/or product provider may be combined in a single entity. In the depicted embodiment, the integration of product provider, metadata provider, PDN provider, and product advertiser may be practical because many radio stations have a limited number of songs in rotation at any given time. By maintaining a digital library of those limited number of songs, a radio station may be able to deliver any requested song without maintaining a library of millions of songs such as some dedicated digital music services may do.

[0032] **FIG. 4** illustrates selected elements of an embodiment of a PDN **100** useful when a requested product is a physical good. In the depicted embodiment, a product advertiser **130** provides advertisement, for example through a catalog **132-4**. User **110** may receive catalog **132-4**, and find desirable goods. The goods in catalog **132-4** may be divided into fixed-price categories, and/or associated with a product code **702-2 (FIG. 7)**. In this case, the content of message **124-2** may include the product code **702-2 (FIG. 7)**. PDN provider **170** may then query metadata provider **180**, which in some cases may be product advertiser **130** to receive metadata **182** formatted to identify the requested goods. The confirmation message **146** may then ask the user to confirm the order for the requested goods. If the user confirms, then premium billing **142** may be applied to the user's service account **148** according to the category of goods ordered. A product request **172** is then formatted and sent to product provider **150**, which provides requested goods **152-4** for physical delivery **160-4** to a given address.

[0033] This embodiment may be particularly useful when a product provider **150** makes a certain group of goods **152-4** available at a common fixed price. For example, product provider **150** may have a catalog of goods all available for a fixed price of $19.95. Any of these goods could then be ordered via message **124-2**, which may be a text message or other type of message, simply by including the product code **702-2 (FIG. 7)**. This would enable the user **110** to order the goods even if he did not have an established account with the product provider **150**. In this case, PDN provider **170** may provide the service while mobile phone company **140-2** could handle billing and may divide the proceeds of the premium billing **142** between itself, product advertiser **130,** product provider **150**, metadata provider **180** and PDN provider **170** as appropriate.

[0034] On the other hand, if a product provider **150** needs to designate multiple categories of goods (for example, a first category of goods costing $9.95, a second category of goods costing $19.95, and a third category of goods costing $29.95), each category of goods may be associated with a separate telephone number. The user may then acquire goods in one of the categories by sending a message **124-2** to the appropriate number.

[0035] In an alternative embodiment, one telephone number may be designated for ordering goods from any class. In this embodiment, the product code **702-2 (FIG. 7)** itself may be encoded to indicate the category of goods. In yet another alternative embodiment, the product code **702-2 (FIG. 7)** may be encoded with the price of the goods. In either of these cases, rather than charging a fixed premium for the message, mobile phone company **140-2** and/or PDN provider **170** may dynamically assign a premium based on the content of the message.

[0036] **FIG. 5** is a block diagram of a request handling device **500**. The request handling device **500** may be programmed with the logic necessary for receiving PRM **124**, receiving metadata **182**, generating an appropriate product request **172**, and calculating premiums for billing purposes. In some embodiments, request handling device **500** may reside within or be operated by PDN provider **170**. Request handling device **500** includes a processor **510** connected to a system bus **570**, which allows communication between various components of request handling device **500**. Storage **520** includes data that represent a user's PDN account **178.** Storage **520** is communicatively coupled to processor **510** via system bus **570**. A messaging network interface **530** communicatively couples processor **510** to a

messaging network **122** such as may be operated by CSP **140**, and allows the request handling device **500** to receive a PRM **124**. A network interface **550** allows request handling device **500** to communicate with external networks to enable functions such as requesting metadata **182 (FIG. 1)** and sending product requests **152 (FIG. 1)**. In some configurations, messaging network interface **530** and network interface **550** may be a single device performing both functions. A request processing and billing engine **560** may be implemented in hardware or in software, and may be an integrated component or a separate component. Request processing and billing engine **560** may include the logic to receive requests, process requests, initiate the necessary communication with other parts of the network, and apply the appropriate charges to the user's service account.

[0037] **FIG. 6** is a flow diagram showing selected elements of an embodiment of a method **600** of processing requests and delivering remote products. In block **602** user **110 (FIG. 1)** encounters an advertisement **132 (FIG. 1)** or other form of content. In block **606**, user **110 (FIG. 1)** sends a PRM **124 (FIG. 1)** to PDN provider **170 (FIG. 1)**. In block **610**, PDN provider **170 (FIG. 1)** requests metadata **182 (FIG. 1)**. In block **614**, metadata provider **180 (FIG. 1)** delivers metadata **182 (FIG. 1)** to PDN provider **170 (FIG. 1)**. In block **618**, PDN provider **170 (FIG. 1)** sends a confirmation message **146 (FIG. 1)** to user **110 (FIG. 1)**. Block **622** is a check to see whether user **110 (FIG. 1)** confirmed. If not, then in block **638**, no further action is taken. If user **110 (FIG. 1)** did confirm in block **622** then PDN provider **170 (FIG. 1)** charges user **110 (FIG. 1)** in block **626**. In block **630**, PDN provider **170 (FIG. 1)** sends a product request **172 (FIG. 1)** to product provider **150 (FIG. 1),** instructing product provider **150 (FIG. 1)** to deliver product **152 (FIG. 1)**. In block **634**, product provider **150 (FIG. 1)** delivers product **152 (FIG. 1)** to the product delivery address **160 (FIG. 1)** and then, in block **638**, method **600** ends.

[0038] **FIG. 7** illustrates exemplary embodiments of messages **124** for use with a PDN. Song request **124-7** is an example of PRM **124**. Each PRM **124** may have a message body **702.** In this example, message body 1 **702-1** is a string of call letters, in this case the string WPTO, identifying the radio station on which the user heard a song that he or she wants to download. There is also appended to the song request **124-6** a time stamp **704**. Time stamp **704** allows service provider **140 (FIG. 1)** to correlate song request **124-7** to a song that was playing when song request **124-7** was sent.

[0039] A second example of a PRM **124** is provided as a request for goods **124-8**. This type of message may be used in conjunction with the embodiment described in **FIG. 4.** In this case, PRM **124 (FIG. 1)** is a request for goods **124-8** and message body **702-2** is composed of a product code, in this case the arbitrary product code 6684897, which would identify some good that the user has seen in the catalog and wants to order. It may be desirable to limit the length of the product code to make use of it easier for user **110 (FIG. 1)**. For example, it may be desirable to limit product code **702-2** to seven or fewer characters.

[0040] **FIG. 7** also shows an example of a confirmation message **146** such as might be sent in response to song request **124-7**. In some embodiments, the confirmation message may be an SMS text message or a message in a more advanced protocol such as enhanced messaging service (EMS). For purposes of illustrating this example, assume that radio station WPTO **130-2 (FIG. 2)** was playing the hit song "Continuation Nation" at 10:21 a.m., followed by another song, "Bar Date," at 10:24 a.m. As shown by the time stamp **704**, the message was sent at 10:24 a.m. PDN provider **170** may receive metadata **182** from metadata provider **180** to determine that at 10:24 a.m. "Bar Date" was playing on radio station WPTO **130-2 (FIG. 2)**. Recognizing that a text message may be somewhat delayed, the confirmation message offers not only an option to confirm downloading "Bar Date" but also the song that preceded it on WPTO **130-2 (FIG. 2)**, "Continuation Nation." So if PRM **124 (FIG. 1)** is delayed, or if user **110 (FIG. 1)** waits until the end of the song to request the download, user **110 (FIG. 1)** will still be able to get the desired song. This confirmation message also shows promotional options that may be provided. For example, option 3 is a promotional option **716** that allows user **110 (FIG. 1)** to download both songs. A fourth option would be an album option **718** which allows user **110 (FIG. 1)** to download the entire album "Jerome's Greatest Hits," which includes the hit song "Continuation Nation" 7**12**.

[0041] **FIG. 8** illustrates exemplary embodiments of metadata packets **801** such as might be sent in metadata **124 (FIG. 1)**. First example **801-1** may be useful for an embodiment enabling delivery of digital music, such as is illustrated in **FIG. 2**. In this embodiment, metadata packet **801-1** is configured to enable service provider **140 (FIG. 1)** to allow user **110 (FIG. 1)** to receive a song. Packet **801-1** indicates that the broadcast station identifier "WPTO" was sent on Jun 29, CCYY at 10:24 a.m. The song currently playing is "Bar Date" by the artist Prior Art, from the Album "Promote the Progress." Packet **801-1** also

identifies the previous song, "Continuation Nation" by the artist "Jerome," from the album "Jerome's Greatest Hits." This example illustrates a purpose of sending both the current song and a previous song. At 10:24, "Bar Date" may have just started, so there are two strong possibilities: First, that user **110 (FIG. 1)** just finished listening to "Continuation Nation" and decided to download it. Second, that user **110 (FIG. 1)** is familiar with "Bar Date," has been waiting for it to play, and sent a message immediately upon hearing it. With this information, service provider **140 (FIG. 1)** can allow user **110 (FIG. 1)** to receive either or both of the songs, and can also provide other promotional options such as album downloads.

[0042] Packet **801-2** illustrates metadata that may be useful in ordering physical goods, such as a book. In this example, user **110 (FIG. 1)** may have seen a catalog from Patent Warehouse and found a desirable book, T. Jefferson's *So You Want to Be a Patent Attorney*. User **110 (FIG. 1)** may have sent a PRM **124 (FIG. 1)** with the string 6684897, which corresponds to the desirable book. Packet **801-2** indicates that the book is available as a paperback, hardcover, or as an e-book.

[0043] Packet **801-3** illustrates metadata that may be useful in ordering a television program that user **110 (FIG. 1)** saw while watching PTO-TV. In this example, user **110 (FIG. 1)** may have seen an episode #47 of the television show "Innovation Abroad" and decided to order it. Packet **801-3** indicates that the string "PTO-TV" was sent at 10:24 a.m. on June 29, CCYY. Episode #47 of "Innovation Abroad" was playing, which is an episode from season 3. The episode may be available as a download, on physical media such as on a disc, or as part of a box set including all of season 3.

[0044] In some alternative embodiments of the above examples, the various delivery options provided may have different prices. So metadata packet **801** may also include appropriate price information for each option.

[0045] **FIG. 9** is a network diagram showing selected elements of an embodiment of a PDN **100-9**. This embodiment specifically illustrates a method that may be used for advertising and selling digital music, and wherein the product may be provided either as metadata or digital content. This embodiment is similar, in some respects to the embodiment disclosed in **FIG. 2**. User **110** may listen to a radio broadcast **132-9** from radio station WPTO **130-9**. If user **110** hears a song and wants to purchase the metadata and/or digital song, the

user **110** may send a PRM **124** to PDN provider **170**, which is handled by wireless provider **140-9**. Wireless provider **140-9** provides message routing **144**, delivering PRM **124** to PDN provider **170**. PDN provider **170** requests metadata **182** from metadata provider **180**, which may be a service that monitors radio stations like WPTO **130-9**. PDN Provider **170** may send a confirmation message **146**, which may provide user **110** an option to purchase as product **152-9** either metadata for the song, or a digital version of the song, which may be delivered as a URL to linking the user to the purchased content. Product **152-9** may be provided as a message or link in user **110**'s inbox **160-9**, as an e-mail **160-10**, or in a confirmation message **146**.

[0046] In order to provide digital downloads, PDN provider **170** may contract with a license provider **150-9**, which may provide blanket or individual licenses **192** to certain recordings, and may also provide the actual digital files **194**. Licensing through license provider **150-9** may simplify licensing of copyrights in digital songs and permit PDN provider **170** to operate without keeping a large library of digital files. But embodiments as disclosed in **FIG. 9** do not require the use of a separate license provider **150-9**. PDN provider **170** may instead assume this function itself in some embodiments.

[0047] In **FIG. 9**, it is also apparent that user **110** may have an existing PDN account **178** with PDN provider **170**. This may provide some flexibility in billing. A user **110** may be billed a premium by means of a confirmation message **146**, which may be charged to the user 110's wireless service account 148-9, or if a credit card number has been entered for use with PDN account **178**, the credit card may be charged.

[0048] **FIG. 10** is a flow diagram disclosing a method of operating a PDN to permit a user **110** to purchase metadata and digital content separately. This method may be used in some embodiments, including the embodiment disclosed in **FIG. 9**. In block **1010**, a PRM is received identifying, for example, call letters for radio station WPTO. In block **1020**, the metadata provider is queried to retrieve metadata associated with the PRM. For example, metadata may identify the song playing on radio station WPTO when the PRM was sent. In block **1030**, the user is offered an option to purchase the metadata. In block **1040**, if the purchase is not accepted, then in block **1042**, a copy of the metadata may be stored online to facilitate, for example, providing user **110** a message in an inbox to allow user **110** to choose to purchase the metadata later. In block **1044**, if user **110** chooses to purchase the metadata,

then a premium message charge may be applied to the message. As an alternative, if user **110** has an existing service account **178**, a credit card may be charged for the metadata **182**. In block **1050**, if user **110** purchases the metadata, a new message may be sent including the metadata and an option to purchase the product, for example, a digital file. In block **1060**, user **110** may be offered an opportunity to purchase the digital file for a first amount via premium text message, in which case the charge may be applied to user **110**'s mobile telephone bill.

[0049] While the disclosed subject matter has been presented in connection with one or more exemplary embodiments, the claimed subject matter is not limited by the disclosed embodiments. On the contrary, the claimed subject matter it is intended to cover such alternatives, modifications, and equivalents as may be included within the spirit and scope of the disclosure.

WHAT IS CLAIMED IS:

1. A method of making a desired product available for purchase to a user of a telecommunication service, the method comprising:

receiving a product request message (PRM) from a mobile device, the PRM comprising a product identifier;

determining the desired product from the PRM;

sending a product request to a product provider, the product request instructing the product provider to deliver the product; and

charging a premium to a user's account with the telecommunication service.

2. The method of claim 1, wherein the premium is charged to the user's account in response to the PRM.

3. The method of claim 2, wherein the premium is a fixed-rate premium

4. The method of claim 1:

further comprising receiving, from the user, a response to a confirmation message; and

wherein the premium is charged to the user's account after receiving the confirmation message response.

5. The method of claim 4, wherein the premium is a fixed-rate premium.

6. The method of claim 1, further comprising correlating the product identifier to the product including receiving metadata from a product advertiser.

7. The method of claim 6, wherein:

the product advertiser is a broadcaster;

the product identifier is a station identifier assigned to the broadcaster; and

the metadata comprise information identifying an advertisement broadcast substantially simultaneously with delivery of the PRM.

8. The method of claim 7, wherein the advertisement comprises a song available for electronic delivery.

9. The method of claim 7, wherein the advertisement advertises a physical product available for delivery.

10. The method of claim 1, wherein the service provider and the product provider are a single entity.

11. A software program comprising computer-executable instructions stored on a tangible computer-readable medium communicatively coupled to a request handling device, the software program comprising instructions to:

receive a product request message (PRM);

receive metadata associated with the PRM;

identify a product from the PRM and metadata;

send a product request instructing a product provider to deliver the product; and

charge a premium to a user account with a telecommunication service provider.

12. The software program of claim 11, wherein the PRM identifies a broadcast station.

13. The software program of claim 11 wherein:

the PRM comprises a station identifier and a time stamp; and

the metadata identifies a song playing on a station identified by the station identifier at a time correlating to the time stamp.

14. The software program of claim 11 wherein:

the PRM comprises a product code; and

the metadata identifies a product correlating to the product code.

15. A request handling device comprising:

a processor enabled to access storage, the storage including data representing a user's service account;

a messaging network interface communicatively coupling the processor to a messaging network; and

a queuing and billing engine adapted to:

receive a message from the messaging network interface;

charge a premium to the user's service account in response to the message; and

order a product to be delivered to the user.

16. The device of claim 15 wherein the premium is a fixed-rate premium.

17. The device of claim 15 wherein the product is a digital file.

18. The device of claim 15 wherein the product is a good.

19. A product distribution network (PDN) comprising:

a PDN provider;

wherein the service provider is adapted to:

receive a product request message (PRM) from a user;

receive metadata from a product advertiser, the metadata enabling the service provider to correlate the PRM to a product; and

deliver a product request to a product provider.

20. The network of claim 19 wherein the product advertiser is adapted to:

deliver an advertisement to the user; and

deliver metadata to the service provider.

21. The network of claim 19 wherein the product provider is adapted to:

receive a product request from the service provider; and

deliver a product to the user.

22. The network of claim 21 wherein:

the product comprises electronic data; and

the product is delivered over a data network.

23. The network of claim 21 wherein:

the product comprises goods; and

the product is delivered to a physical location.

24. A product distribution method, comprising:

receiving a product request message from a user;

receiving metadata from a metadata provider, wherein the metadata identify attributes of a product associated with the product request message;

making an offer to the user to purchase at least a part of the metadata;

delivering the offered part of the metadata on the user's acceptance of the offer to purchase the part of the metadata; and

making an offer to the user to purchase a product identified by the metadata.

25. The method of claim 24 wherein the offer to purchase the product includes a plurality of purchase options.

26. The method of claim 25 wherein a first purchase option is associated with a first billing method and a second purchase option is associated with a second billing option.

27. The method of claim 26 wherein the first billing method is a premium charge for a text message and the second billing option is a charge to an account for the user.

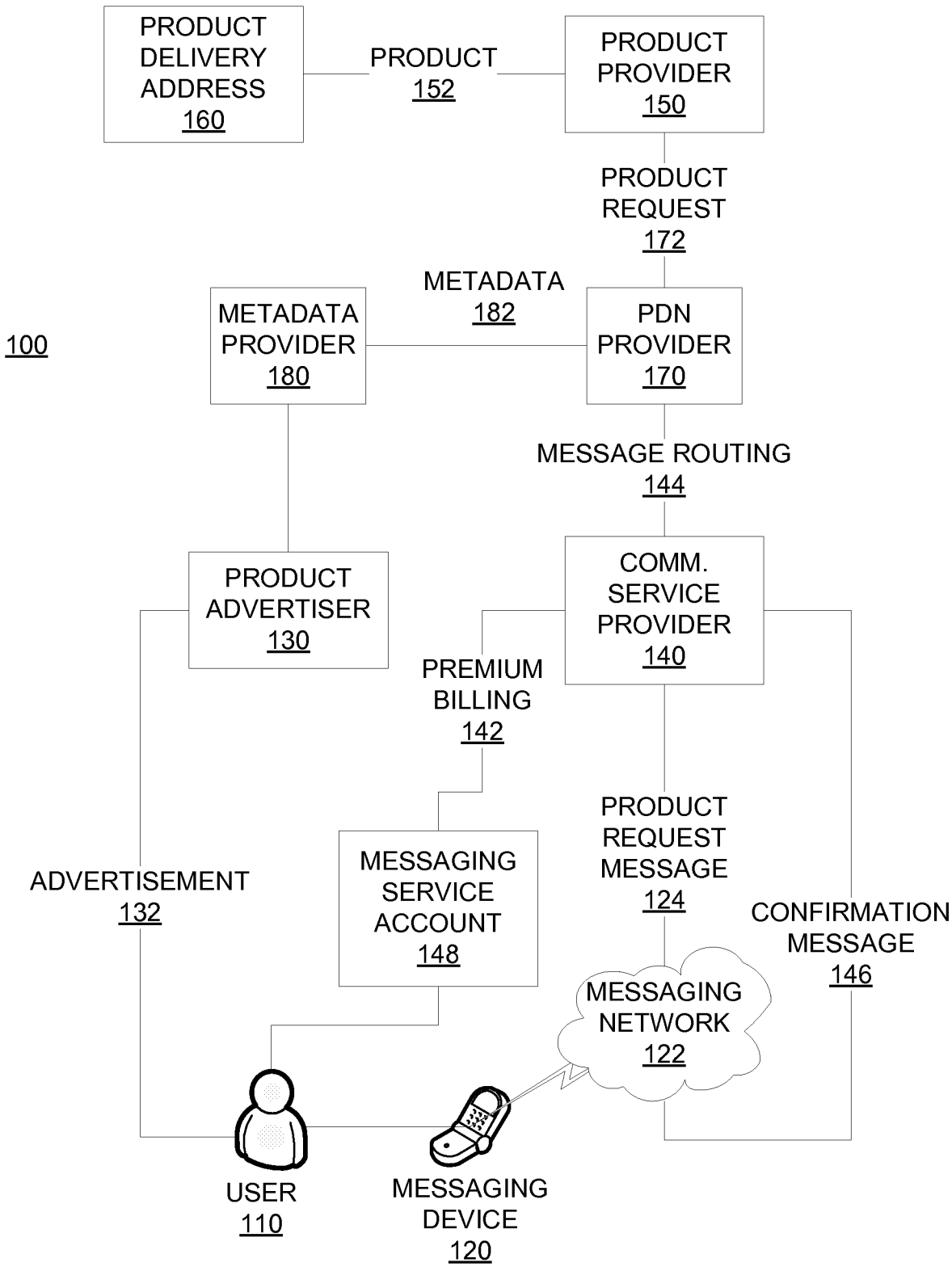
PRODUCT DELIVERY ADDRESS 160
PRODUCT 152
PRODUCT PROVIDER 150
PRODUCT REQUEST 172
METADATA 182
METADATA PROVIDER 180
PDN PROVIDER 170
100
MESSAGE ROUTING 144
PRODUCT ADVERTISER 130
COMM. SERVICE PROVIDER 140
PREMIUM BILLING 142
PRODUCT REQUEST MESSAGE 124
MESSAGING SERVICE ACCOUNT 148
ADVERTISEMENT 132
CONFIRMATION MESSAGE 146
MESSAGING NETWORK 122
USER 110
MESSAGING DEVICE 120

FIG. 1

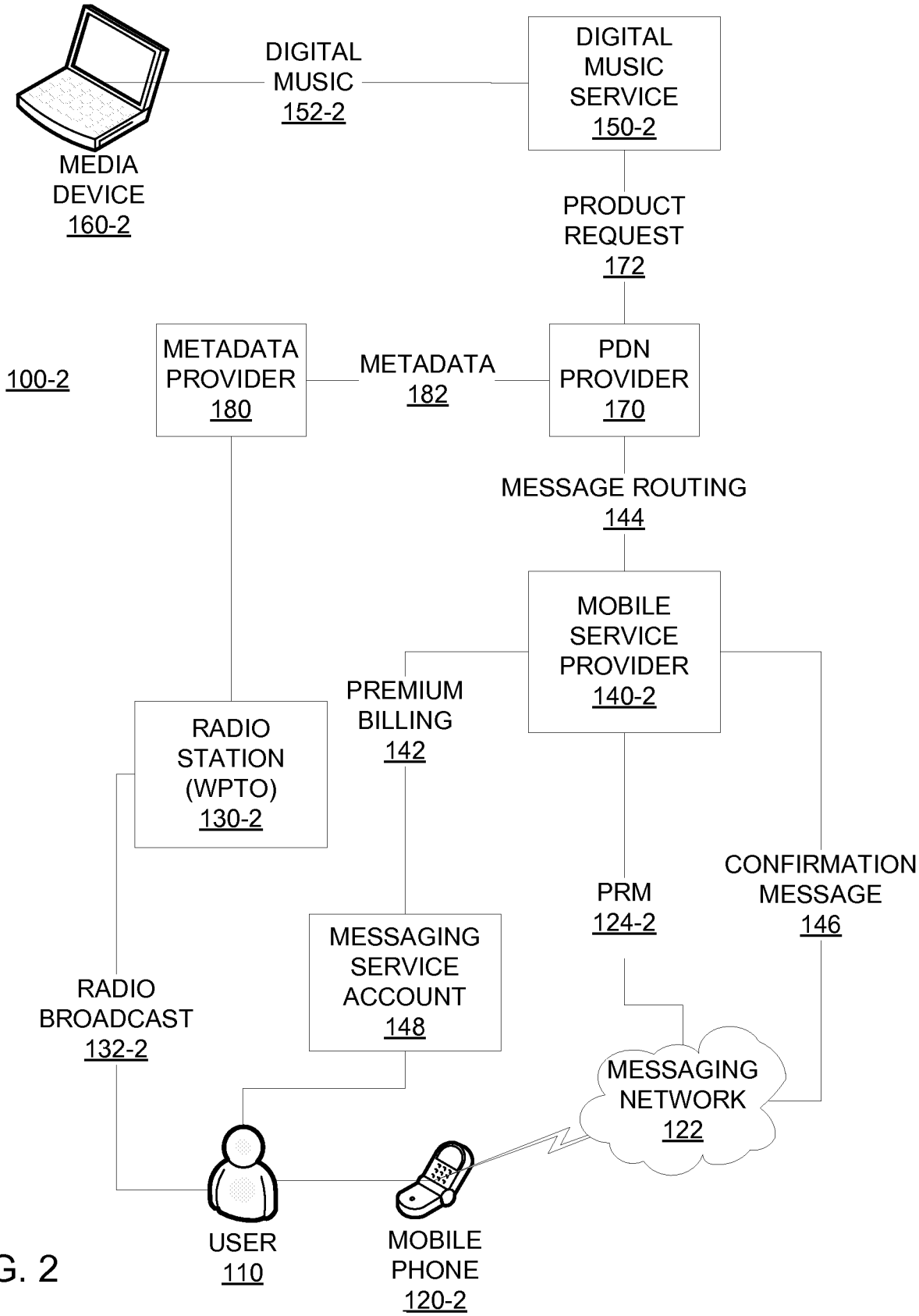
DIGITAL MUSIC 152-2
DIGITAL MUSIC SERVICE 150-2
MEDIA DEVICE 160-2
PRODUCT REQUEST 172
100-2
METADATA PROVIDER 180
METADATA 182
PDN PROVIDER 170
MESSAGE ROUTING 144
MOBILE SERVICE PROVIDER 140-2
PREMIUM BILLING 142
RADIO STATION (WPTO) 130-2
CONFIRMATION MESSAGE 146
PRM 124-2
MESSAGING SERVICE ACCOUNT 148
RADIO BROADCAST 132-2
MESSAGING NETWORK 122
USER 110
MOBILE PHONE 120-2

FIG. 2

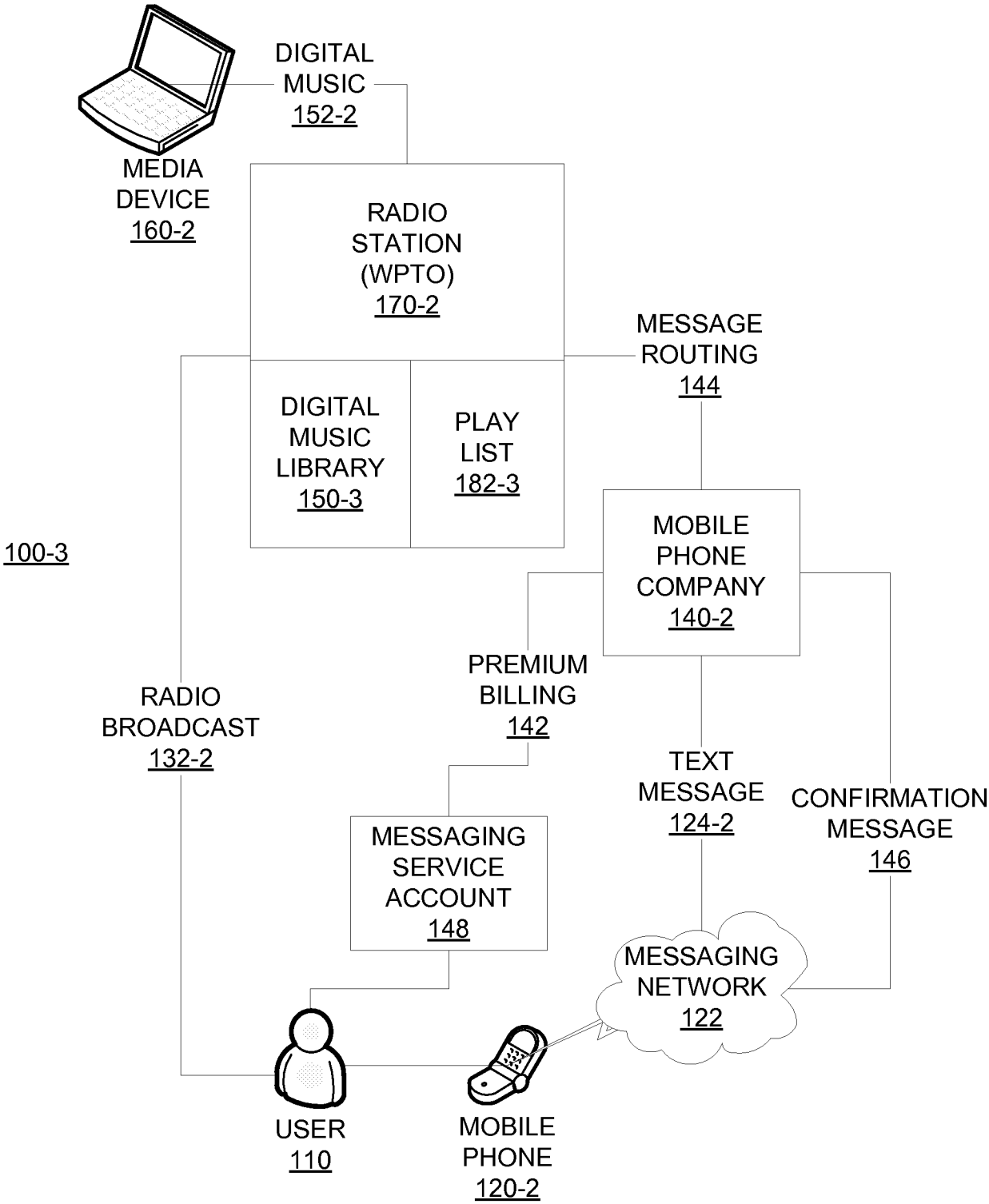
DIGITAL MUSIC 152-2
MEDIA DEVICE 160-2
RADIO STATION (WPTO) 170-2
MESSAGE ROUTING 144
DIGITAL MUSIC LIBRARY 150-3
PLAY LIST 182-3
100-3
MOBILE PHONE COMPANY 140-2
PREMIUM BILLING 142
RADIO BROADCAST 132-2
TEXT MESSAGE 124-2
CONFIRMATION MESSAGE 146
MESSAGING SERVICE ACCOUNT 148
MESSAGING NETWORK 122
USER 110
MOBILE PHONE 120-2

FIG. 3

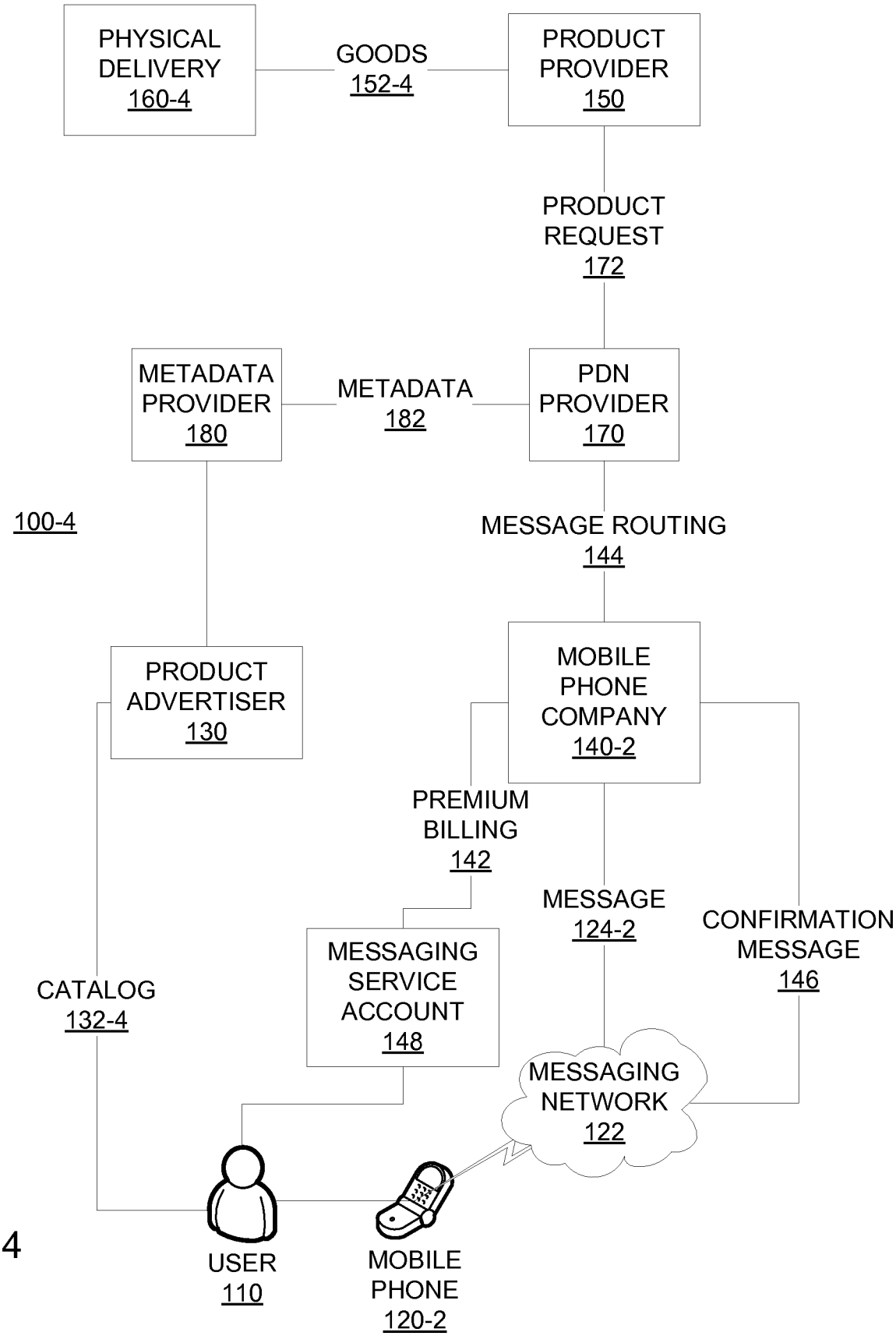
PHYSICAL DELIVERY 160-4
GOODS 152-4
PRODUCT PROVIDER 150
PRODUCT REQUEST 172
METADATA PROVIDER 180
METADATA 182
PDN PROVIDER 170
100-4
MESSAGE ROUTING 144
PRODUCT ADVERTISER 130
MOBILE PHONE COMPANY 140-2
PREMIUM BILLING 142
MESSAGE 124-2
CONFIRMATION MESSAGE 146
MESSAGING SERVICE ACCOUNT 148
CATALOG 132-4
MESSAGING NETWORK 122
USER 110
MOBILE PHONE 120-2

FIG. 4

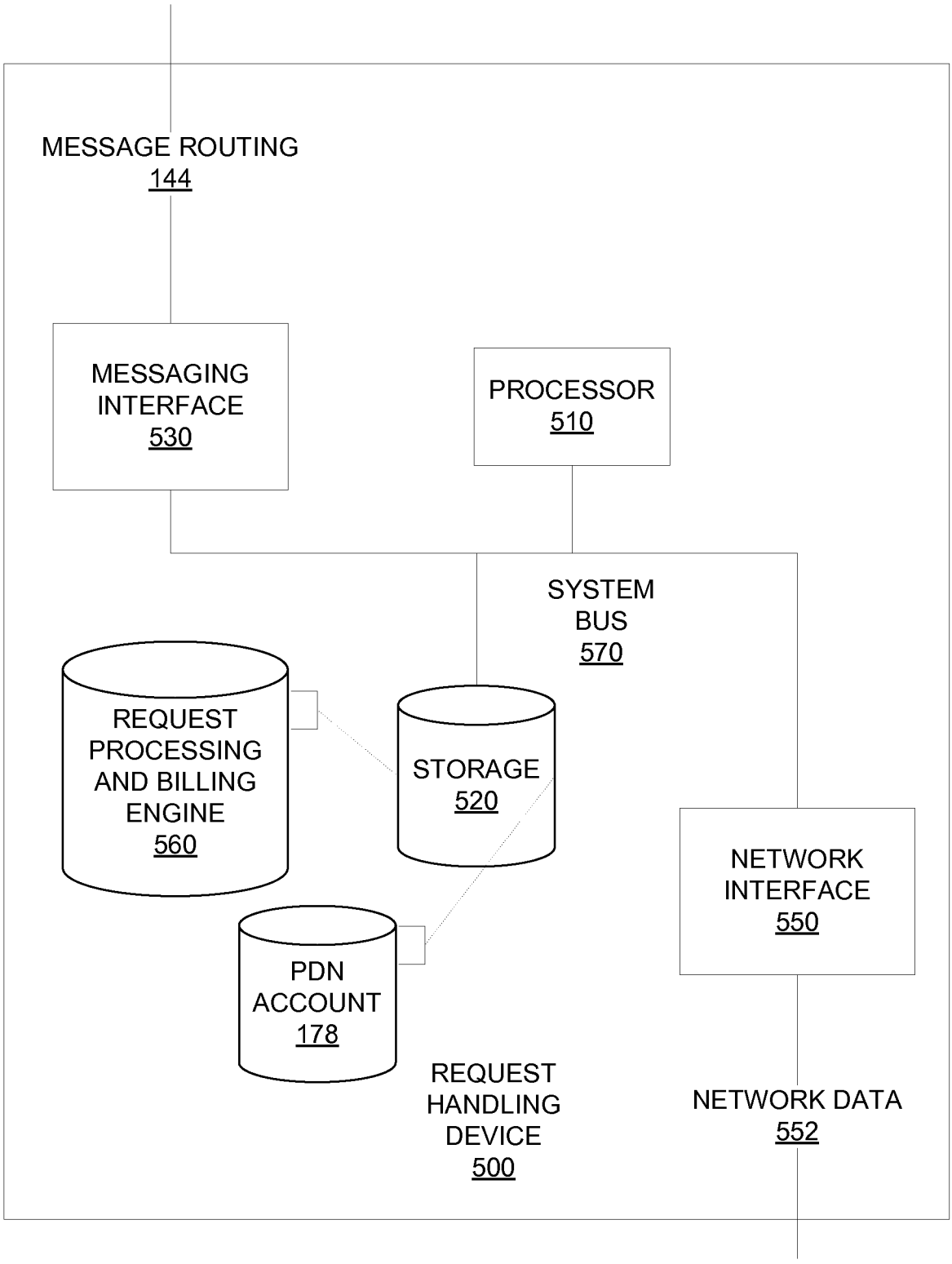
MESSAGE ROUTING
144
MESSAGING INTERFACE
530
PROCESSOR
510
SYSTEM BUS
570
REQUEST PROCESSING AND BILLING ENGINE
560
STORAGE
520
NETWORK INTERFACE
550
PDN ACCOUNT
178
REQUEST HANDLING DEVICE
500
NETWORK DATA
552

FIG. 5

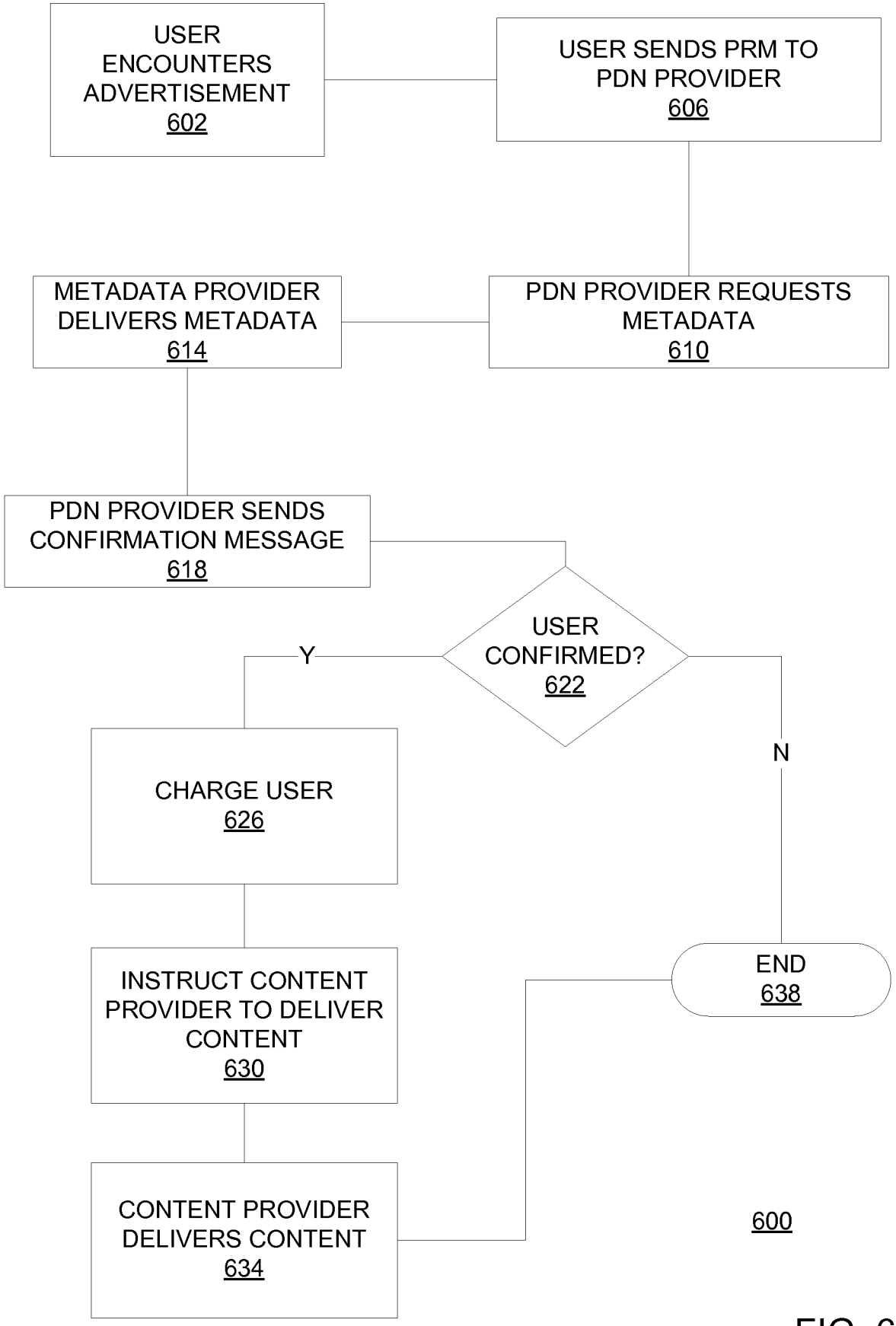
USER ENCOUNTERS ADVERTISEMENT 602
USER SENDS PRM TO PDN PROVIDER 606
METADATA PROVIDER DELIVERS METADATA 614
PDN PROVIDER REQUESTS METADATA 610
PDN PROVIDER SENDS CONFIRMATION MESSAGE 618
USER CONFIRMED? 622
Y
N
CHARGE USER 626
INSTRUCT CONTENT PROVIDER TO DELIVER CONTENT 630
END 638
CONTENT PROVIDER DELIVERS CONTENT 634
600

FIG. 6

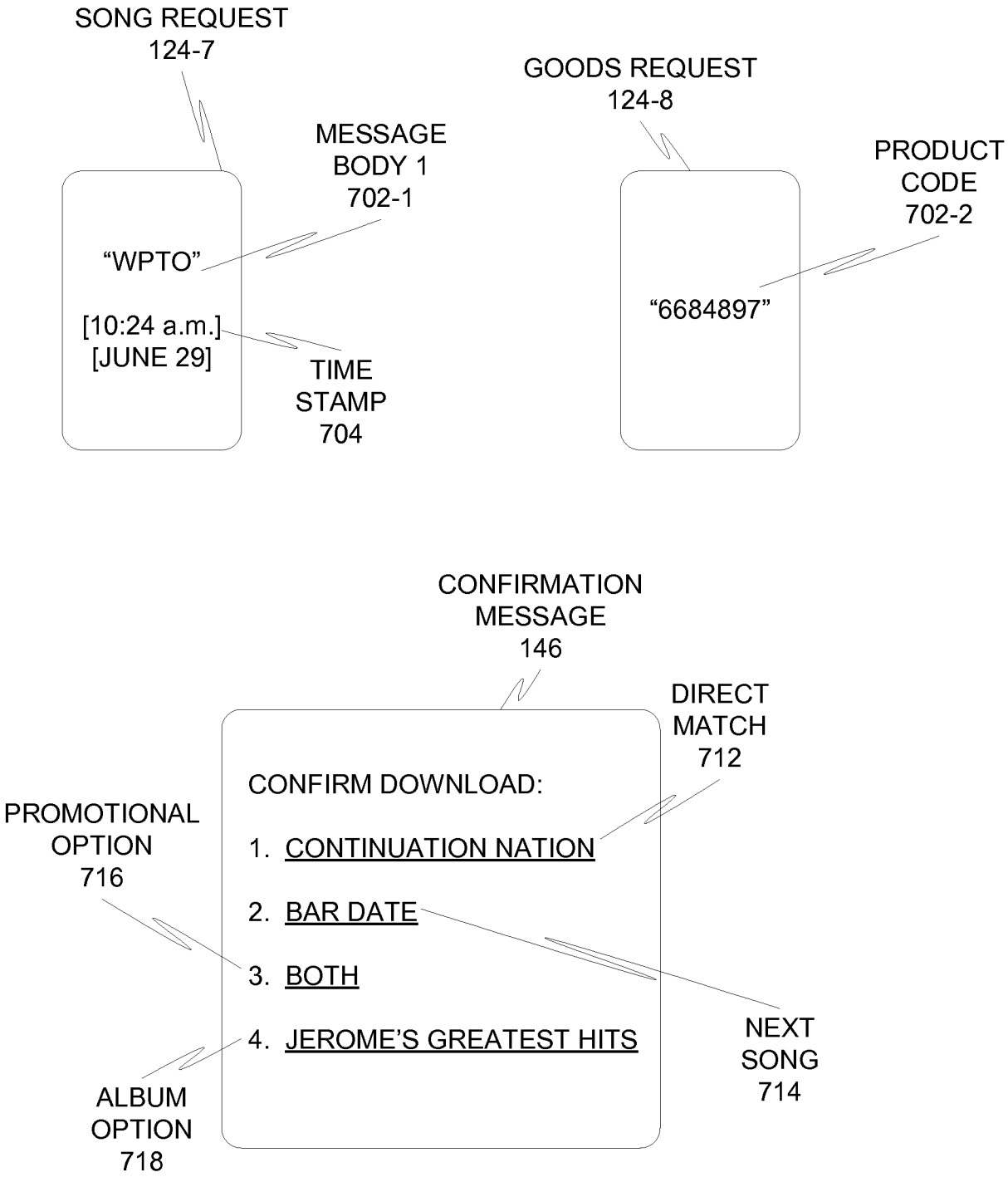
SONG REQUEST
124-7
MESSAGE
BODY 1
702-1
"WPTO"
[10:24 a.m.]
[JUNE 29]
TIME
STAMP
704
GOODS REQUEST
124-8
PRODUCT
CODE
702-2
"6684897"
CONFIRMATION
MESSAGE
146
DIRECT
MATCH
712
CONFIRM DOWNLOAD:
1. CONTINUATION NATION
2. BAR DATE
3. BOTH
4. JEROME'S GREATEST HITS
PROMOTIONAL
OPTION
716
ALBUM
OPTION
718
NEXT
SONG
714

FIG. 7

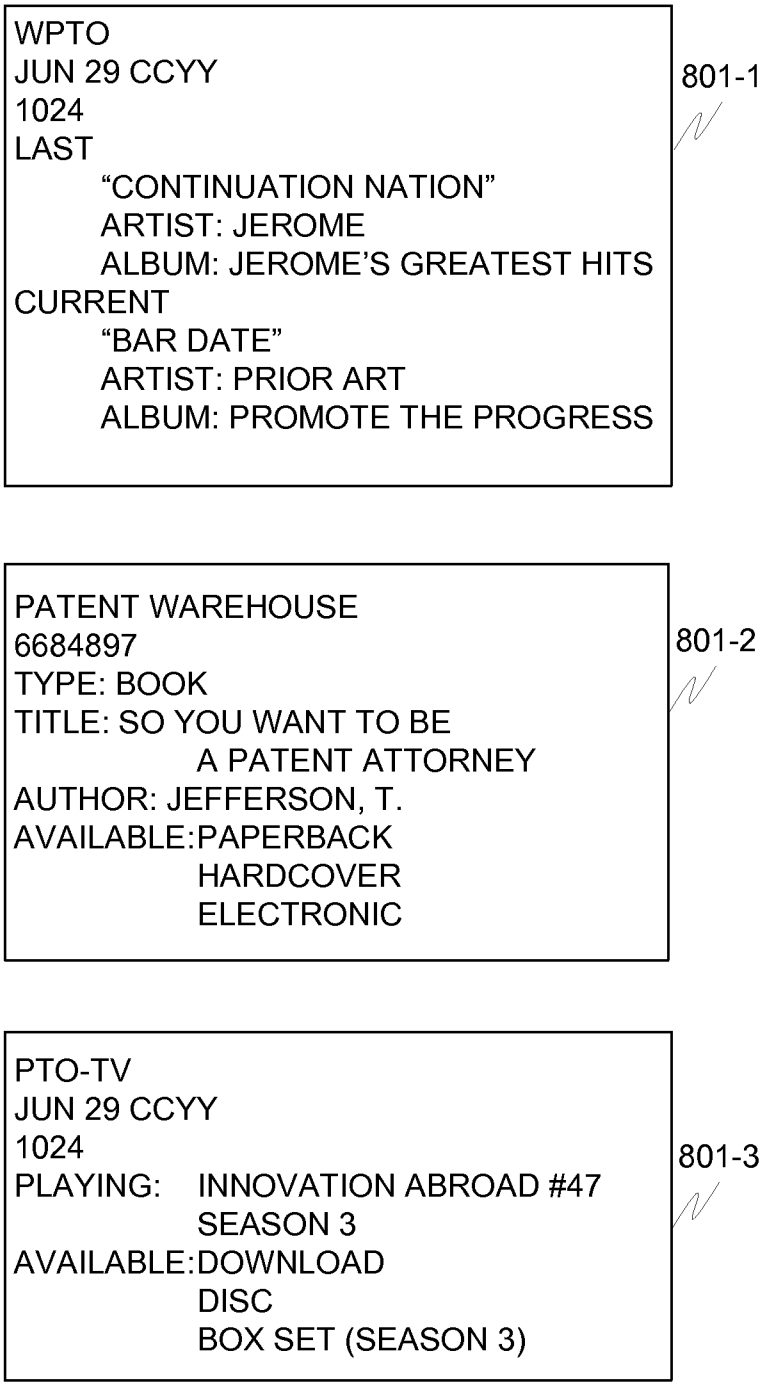
WPTO
JUN 29 CCYY
1024
LAST
"CONTINUATION NATION"
ARTIST: JEROME
ALBUM: JEROME'S GREATEST HITS
CURRENT
"BAR DATE"
ARTIST: PRIOR ART
ALBUM: PROMOTE THE PROGRESS
801-1
PATENT WAREHOUSE
6684897
TYPE: BOOK
TITLE: SO YOU WANT TO BE
A PATENT ATTORNEY
AUTHOR: JEFFERSON, T.
AVAILABLE: PAPERBACK
HARDCOVER
ELECTRONIC
801-2
PTO-TV
JUN 29 CCYY
1024
PLAYING: INNOVATION ABROAD #47
SEASON 3
AVAILABLE: DOWNLOAD
DISC
BOX SET (SEASON 3)
801-3

FIG. 8

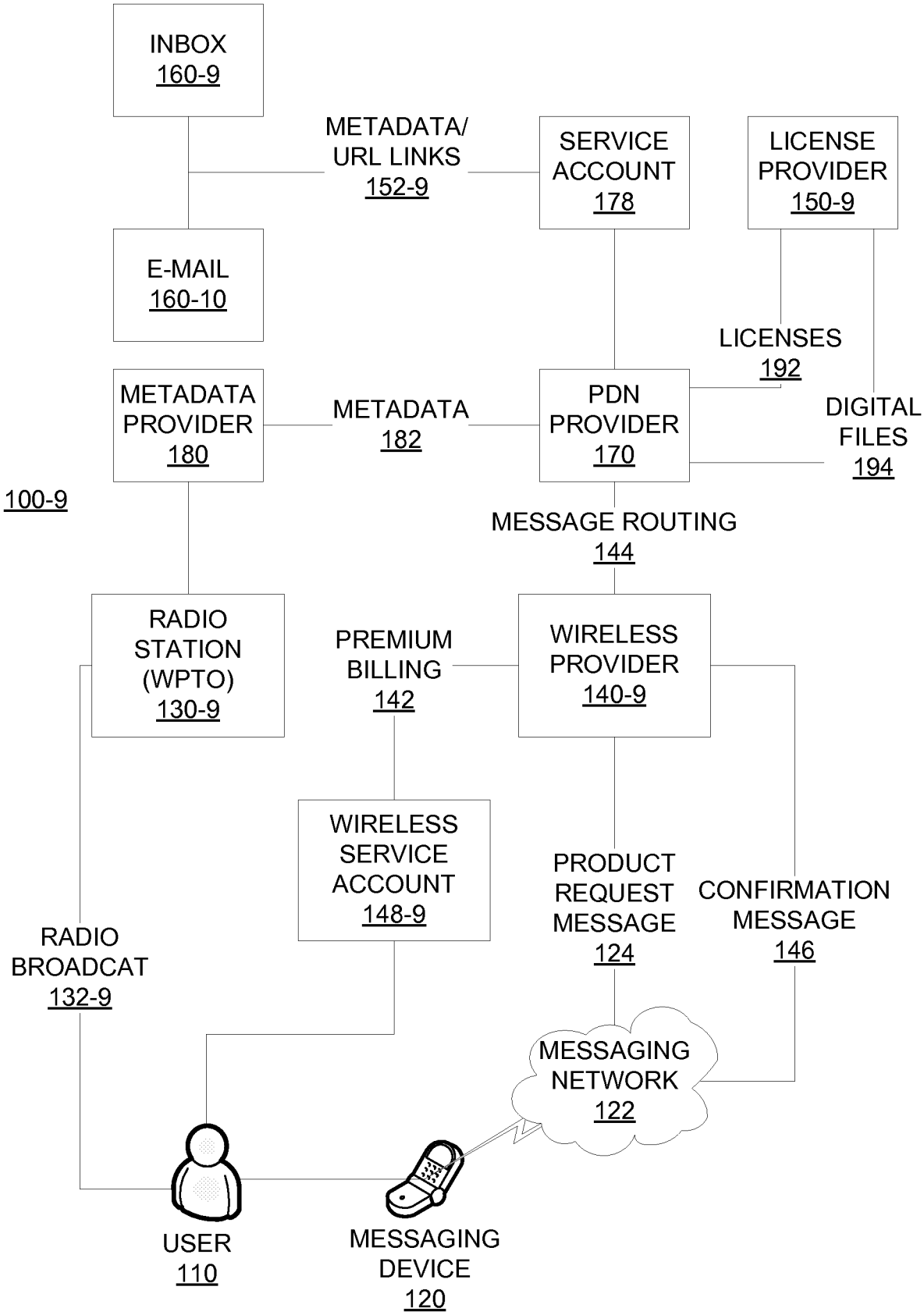
INBOX
160-9
METADATA/
URL LINKS
152-9
SERVICE
ACCOUNT
178
LICENSE
PROVIDER
150-9
E-MAIL
160-10
LICENSES
192
METADATA
PROVIDER
180
METADATA
182
PDN
PROVIDER
170
DIGITAL
FILES
194
100-9
MESSAGE ROUTING
144
RADIO
STATION
(WPTO)
130-9
PREMIUM
BILLING
142
WIRELESS
PROVIDER
140-9
WIRELESS
SERVICE
ACCOUNT
148-9
PRODUCT
REQUEST
MESSAGE
124
CONFIRMATION
MESSAGE
146
RADIO
BROADCAT
132-9
MESSAGING
NETWORK
122
USER
110
MESSAGING
DEVICE
120

FIG. 9

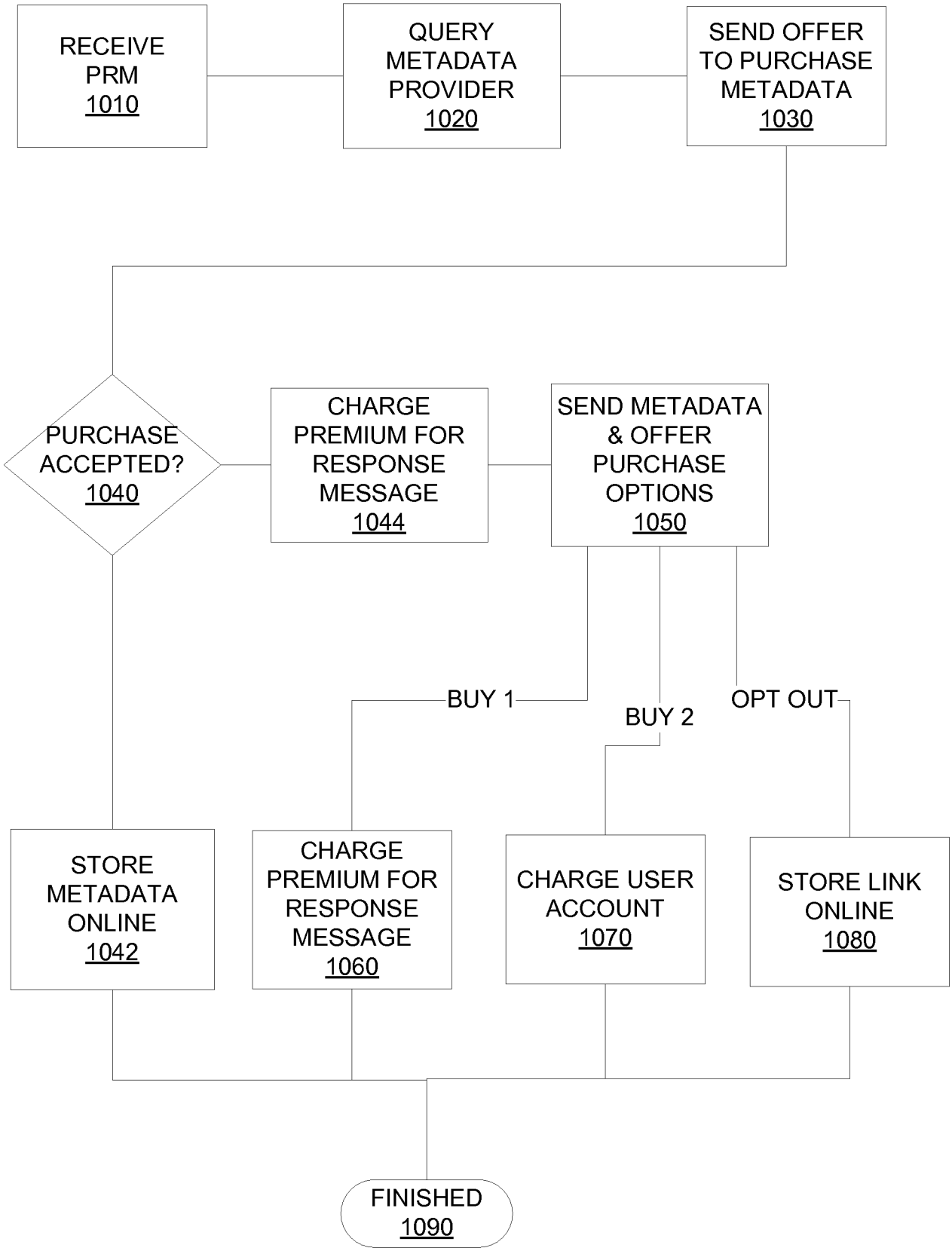
RECEIVE PRM 1010
QUERY METADATA PROVIDER 1020
SEND OFFER TO PURCHASE METADATA 1030
PURCHASE ACCEPTED? 1040
CHARGE PREMIUM FOR RESPONSE MESSAGE 1044
SEND METADATA & OFFER PURCHASE OPTIONS 1050
BUY 1
BUY 2
OPT OUT
STORE METADATA ONLINE 1042
CHARGE PREMIUM FOR RESPONSE MESSAGE 1060
CHARGE USER ACCOUNT 1070
STORE LINK ONLINE 1080
FINISHED 1090

FIG. 10