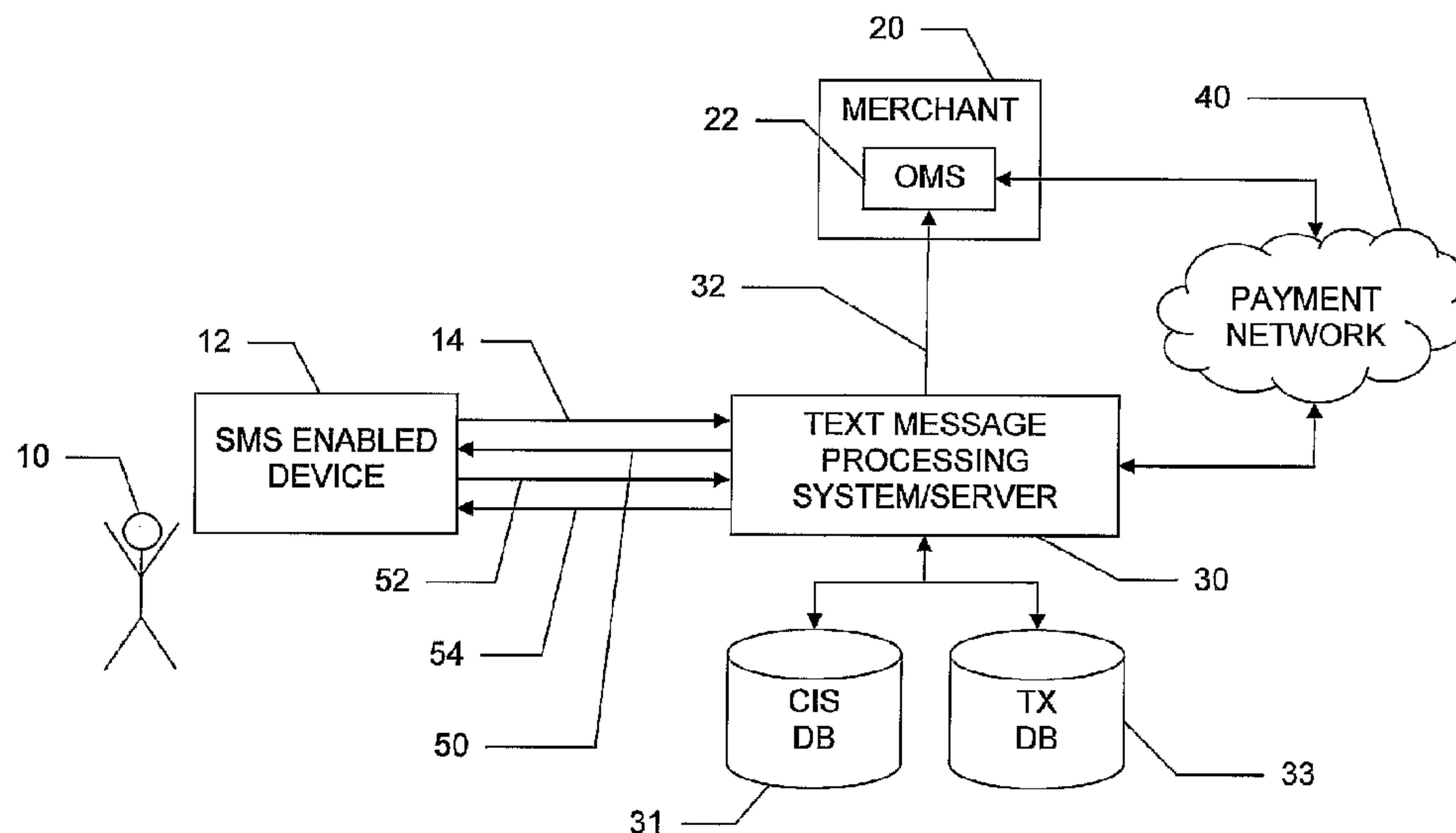




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(54) **Titre : METHODE ET SYSTEME DE REPORT D'UN PAIEMENT PAR MESSAGERIE TEXTE**  
(54) **Title: METHOD AND SYSTEM FOR EXTENDING PAYMENT SYSTEM VIA TEXT MESSAGING**



(57) **Abrégé/Abstract:**

A text message order processing system includes receiving text messages from consumers purchasing products from one or more merchants, parsing each text message to extract the identification of the product being purchased and the device from which the text message was sent, selecting based upon each received text message a payment instrument to be used to pay for the purchase, establishing payment information related to the selected payment instrument and delivery information indicating where the purchased product is to be delivered, generating for each received message an order including the established payment information, delivery information and identification of the product being purchased, and submitting the generated order to an order management system of the merchant.

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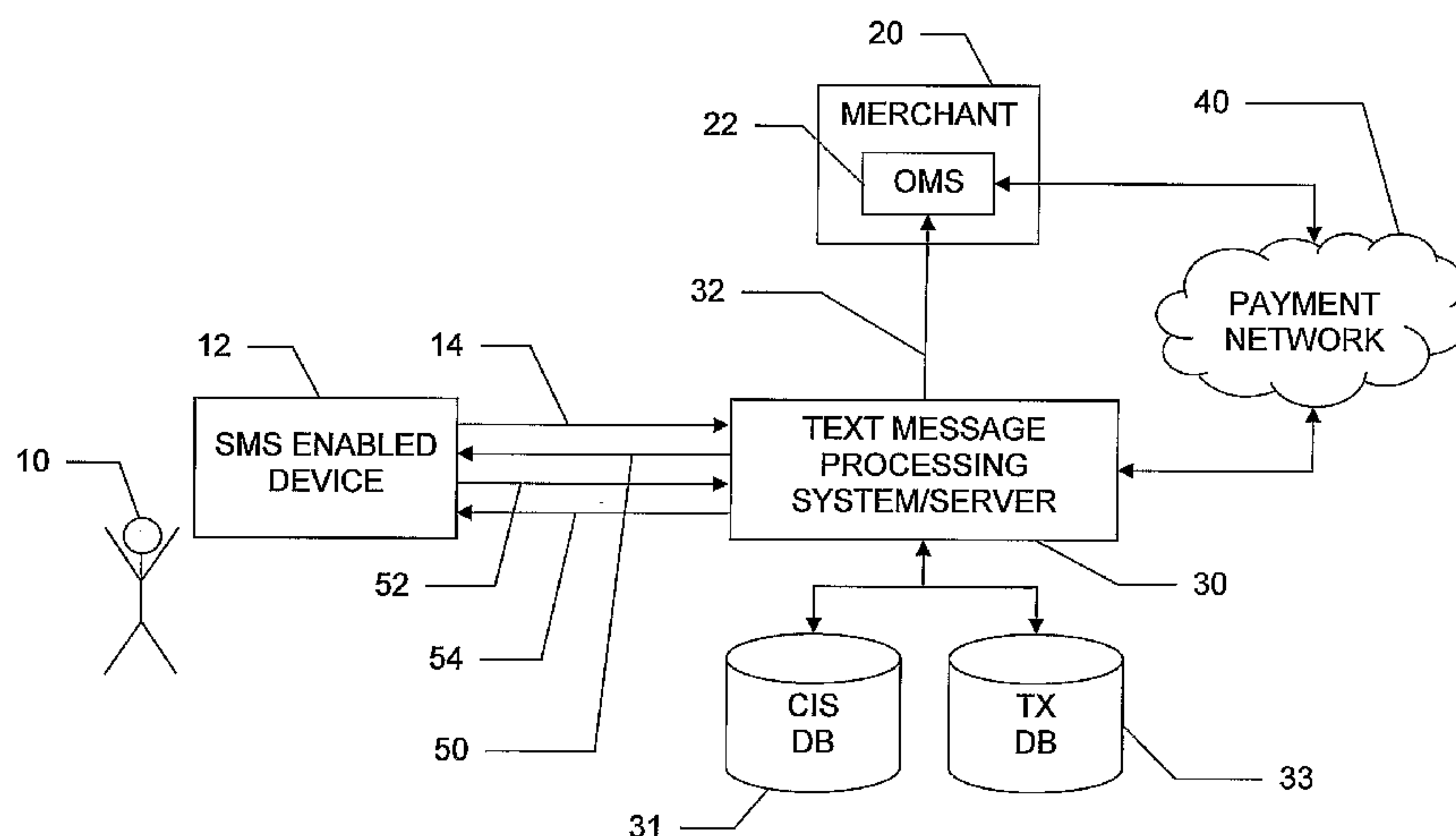
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(54) Title: METHOD AND SYSTEM FOR EXTENDING PAYMENT SYSTEM VIA TEXT MESSAGING



(57) Abstract: A text message order processing system includes receiving text messages from consumers purchasing products from one or more merchants, parsing each text message to extract the identification of the product being purchased and the device from which the text message was sent, selecting based upon each received text message a payment instrument to be used to pay for the purchase, establishing payment information related to the selected payment instrument and delivery information indicating where the purchased product is to be delivered, generating for each received message an order including the established payment information, delivery information and identification of the product being purchased, and submitting the generated order to an order management system of the merchant.



## **METHOD AND SYSTEM FOR EXTENDING PAYMENT SYSTEM VIA TEXT MESSAGING**

### **Field**

**[0002]** The present inventive subject matter relates to the art of mobile commerce. One particular application is found in conjunction with a mobile telecommunication device used to conduct authenticated transactions, and the specification makes particular reference thereto. However, it is to be appreciated that aspects of the present inventive subject matter are also amenable to other like applications.

### **Background**

**[0003]** The general purpose of the present inventive subject matter is to provide a system and/or method that allows consumers to securely purchase items or carry out commercial or other similar transactions in real time using mobile telephones or other similar devices to text message (e.g., via a short message service (SMS) or the like) instructions for a particular purchase or order to a designated address or other like destination.

**[0004]** Commonly, merchants (or their proxies) employ various channels, e.g., shop-from-home television networks, general television programming and/or advertising, radio broadcasts and/or advertising, catalog shopping and/or other similar channels, to sell their goods and/or service. Commercial transactions resulting from the aforementioned channels have in the past been typically carried out using traditional mail order/telephone order (MOTO) systems, Internet based ordering and/or purchasing systems, and the like. Many of such merchants are not equipped to interpret or accept text message purchase instructions or orders. Accordingly, the present inventive subject matter provides a way in which text

message initiated transactions (i.e., purchases and/or orders) may be processed for merchants that are otherwise not equipped to interpret the text message instructions.

### Summary

**[0005]** A suitable embodiment of the present inventive subject matter leverages the current mobile telephone and/or SMS architecture as well as current electronic payment methods (e.g. Visa®, MasterCard®, American Express®, Discover®, JCB®, PayPal®, private label accounts, etc.) processing architectures and legacy payment systems to allow secure transactions to be carried out over these legacy systems that have been initiated via an SMS message using a mobile or other SMS enabled device. In one embodiment, a consumer, in possession of a PayPal® or other like payment account, while viewing products being sold on a shop-from-home television network, initiates a purchase transaction by sending payment instructions via SMS to an SMS shortcode (or some other like address, telephone number or some similar destination identifier) appearing on the television screen. Suitably, a system for processing the instructions receives that SMS message and passes appropriate information into the shop-from-home network's legacy order processing and/or management system. This information can include identifying information about the consumer (e.g., name, address, telephone number) as well as suitable payment information. Optionally, the system also communicates with a payment method processing system or network and returns a request to the consumer via SMS to reply with their password or personal identification number (PIN), thereby helping to ensure the security of the transaction, at which time the payment processing system authorizes the transaction or rejects it based on whether the password and/or PIN is valid, whether sufficient funds are available and/or other considerations. Suitably, once the authorization and payment process has been completed, notification of the successful or unsuccessful completion of the transaction is passed back to the consumer via an SMS message.

**[0006]** Alternate embodiments include, but are not limited to iterations enabling SMS initiated transactions for products advertised on television, paid television programs (infomercials), products featured in general television programming segments, products advertised in radio programming, catalog or print media and/or advertising, etc.



**[0007]** In accordance with one embodiment, a method of conducting a commercial transaction includes: receiving a text message from a first party purchasing a product from a second party, the text message being addressed to an address selected by the first party and including an identification of the product being purchased and an identification of a device from which the text message was sent; parsing the text message to extract the identification of the product and the identification of the device from the text message; selecting based upon the received text message a payment instrument to be used to pay for the purchase; establishing payment information related to the selected payment instrument and delivery information indicating where the purchased product is to be delivered; generating an order including the established payment information, delivery information and identification of the product being purchased; and, submitting the generated order to an order management system of the second party.

**[0008]** In accordance with another embodiment, a text message order processing system including: means for receiving text messages from consumers purchasing products from one or more merchants, each of the text messages being addressed to an address selected by the consumer and including an identification of the product being purchased and an identification of a device from which the text message was sent; means for parsing each text messages to extract the identification of the product and the identification of the device from the text message; means for selecting based upon each received text message a payment instrument to be used to pay for the purchase; means for establishing payment information related to the selected payment instrument and delivery information indicating where the purchased product is to be delivered; means for generating for each received text message an order including the established payment information, delivery information and identification of the product being purchased; and, means for submitting the generated order to an order management system of the merchant.

**[0009]** In accordance with another embodiment, a method of processing a text message includes: receiving a first text message from a first party, the first text message including an identification of information being sought by the first party; generating a request for the identified information, the request being in a format other than a text message format; submitting the request to a server having access to the identified information; obtaining the identified information from the server, the obtained information being in a format other than a text message format; including

the obtaining information in a second text message; and, a sending the second text message back to the first party.

**[0010]** In accordance with another embodiment, a method of conducting a commercial transaction includes: receiving a text message from a first party making a purchase from a second party; identifying based upon the received text message a payment account of the first party to be used to pay for the purchase; sending a communication to a third party that maintains the payment account for the first party to determine if the payment account has sufficient funds available to make the purchase; and if sufficient funds are available, then instructing the third party to reserve those funds, generating an order for the purchase, submitting the generated order to the second party, assuming an obligation to pay for the order on behalf of the first party, and seeking restitution for the obligation to pay for the order out of the reserved funds.

**[0010a]** In accordance with an aspect of the present invention, there is provided a method of conducting a commercial transaction, said method comprising: (a) receiving a text message from a first party purchasing a product from a second party, said text message being addressed to an address selected by the first party and including an identification of the product being purchased and an identification of a device from which the text message was sent; (b) parsing the text message to extract the identification of the product and the identification of the device from the text message; (c) selecting based upon the received text message a payment instrument to be used to pay for the purchase; (d) establishing payment information related to the selected payment instrument and delivery information indicating where the purchased product is to be delivered; (e) generating an order including the established payment information, delivery information and identification of the product being purchased; and, (f) submitting the generated order to a legacy order management system of the second party.

**[0010b]** In accordance with a further aspect of the present invention, there is provided a text message order processing system comprising: means for receiving text messages from consumers purchasing products from one or more merchants, each of said text messages being addressed to an address selected by the consumer and including an identification of the product being purchased and an identification of a device from which the text message was sent; means for parsing each text messages to extract the identification of the product and the identification of



the device from the text message; means for selecting based upon each received text message a payment instrument to be used to pay for the purchase; means for establishing payment information related to the selected payment instrument and delivery information indicating where the purchased product is to be delivered; means for generating for each received text message an order including the established payment information, delivery information and identification of the product being purchased; and, means for submitting the generated order to a legacy order management system of the merchant.

**[0010c]** In accordance with a further aspect of the present invention, there is provided a method of conducting a commercial transaction, said method comprising: (a) receiving a text message from a first party making a purchase from a second party; (b) identifying based upon the received text message a payment account of the first party to be used to pay for the purchase; (c) sending a communication to a third party that maintains the payment account for the first party to determine if the payment account has sufficient funds available to make the purchase; and, (d) if sufficient funds are available; (i) instructing the third party to reserve those funds; (ii) generating an order for the purchase; (iii) submitting the generated order to a legacy order management system of the second party; assuming an obligation to pay for the order on behalf of the first party; and, (iv) seeking restitution for the obligation to pay for the order out of the reserved funds.

**[0011]** Numerous advantages and benefits of the inventive subject matter disclosed herein will become apparent to those of ordinary skill in the art upon reading and understanding the present specification.

#### **Brief Description of the Drawings**

**[0012]** The present inventive subject matter may take form in various components and arrangements of components, and in various steps and arrangements of steps. The drawings are only for purposes of illustrating preferred embodiments and are not to be construed as limiting. Further, it is to be appreciated that the drawings are not to scale.

**[0013]** FIGURE 1 is a diagrammatic illustration showing a transaction processing system embodying aspects of the present inventive subject matter.

**[0014]** FIGURE 2 is a diagrammatic illustration showing an alternate embodiment of a transaction processing system embodying aspects of the present inventive

subject matter.

**[0015]** FIGURE 3 is a diagrammatic illustration showing another alternate embodiment of a transaction processing system embodying aspects of the present inventive subject matter.



### **Detailed Description of Preferred Embodiments**

**[0016]** With reference to FIGURE 1, a consumer **10** (which when referred to herein shall include any purchaser) employs a device **12** to initiate a commercial transaction, e.g., to make a purchase or place an order. The purchase or order is optionally for any one or more desired products (which when referred to herein shall also include services) offered for sale by a merchant **20** (which when referred to herein shall include any seller or their agent or proxy). Suitably, the purchased product or products are optionally presented for sale to the consumer **10** via a suitable media and/or sales channel. For example, the products may be presented on a television tuned to a shop-from-home network or an infomercial or a television advertisement or another television program; or they may be presented via a radio program or advertisement; or they may be presented in a catalog or print advertisement; etc.

**[0017]** In a suitable embodiment, the device **12** is a mobile telephone or other like device equipped or otherwise enabled to send and/or receive text messages, e.g., via SMS or another like text message service or protocol. Suitably, the purchase is made or the order placed by the consumer **10** appropriately manipulating or otherwise using the device **12** to send a text message **14** to a designated destination identified, e.g., by an SMS shortcode, a telephone number, or some other appropriate text message destination address. In the usual manner, when the text message **14** is sent, it includes in a header or the like or is otherwise packaged or associated with an origination identifier (ID) that indicates where or which device the message **14** originated from. For example, where the device **12** is a mobile telephone, the origination ID is optionally the telephone number assigned to or otherwise associated with the device **12**.

**[0018]** As shown in FIGURE 1, the message **14** is received by a text message purchase and/or order processing system **30** that serves the merchant **20**. Suitably, the system **30** is implemented as a server or other appropriate computer (including the typical adjunct components thereof, e.g., memory, data storage devices, central processing unit, etc.) that executes software instructions and/or supports one or more computer programs running thereon, so as to carry out the functions, operations and/or processes described herein as being performed by the system **30**. While FIGURE 1 shows the system **30** serving only one merchant **20** for purposes of simplicity and clarity herein, it is to be appreciated that the system **30** in practice



serves a plurality of merchants (i.e., one or more) similarly equipped and/or situated. Suitably, the system **30** is provisioned with one or more separate SMS shortcodes or other text message addresses for each merchant served. Accordingly, the system **30** differentiates and/or identifies which merchant a particular received text message **14** relates to based upon the particular SMS shortcode or other like destination ID to which the text message **14** is addressed. Alternately, one or more merchants may share a common shortcode or destination address, in which case, the consumer **10** includes in the body of the text message **14** a key word or other identifier that specifies the merchant to which the text message **14** relates.

**[0019]** The body of the text message **14** also optionally includes order instructions, delivery instructions and/or payment instructions. The order instructions suitably identify the product or products being purchased (e.g., using a designated product code, product description or the like) and optionally a quantity. The delivery instructions suitably identify an address or other like destination indicating where the purchased products are to be delivered. The payment instructions optionally identify a type of payment instrument or payment method being used (e.g. Visa®, MasterCard®, American Express®, Discover®, JCB®, PayPal®, a private label account, etc.), a card or account number or a user name associated with the account, a card expiration date, a billing address associated with the payment instrument or account, an account holder's name, etc.

**[0020]** Optionally, the system **30** includes or otherwise has access to a customer information system (CIS) database (DB) **31** in which certain information relating to the consumer **10** is maintained. Accordingly, by having this information "on file," it may be omitted from the text message **14**. Suitably, the consumer **10** is optionally identified by the system **30** based upon the origination ID included or otherwise associated with the received text message **14**. For example, when the device **12** is a mobile telephone, the consumer **10** may be identified based upon the telephone number from which the text message **14** originated. The CIS DB **31** is optionally accessed to obtain the relevant information for the identified consumer **10**, e.g., the consumer's name, their delivery and/or billing addresses, etc. Additionally, the consumer may optionally have one or more payment instruments and/or method associated with their record or file in the CIS DB **31**, including the relevant information associated therewith. Accordingly, when the consumer **10** sends the text message **14** they may merely have to identify which of the payment



instruments/methods on record should be used for the particular purchase. Of course, if only one payment instrument/method is on record in the CIS DB **31** for the consumer **10**, then that payment instrument/method and/or its associated payment information may be used by default, or one of multiple payment instruments/methods on record may be designated as the default.

**[0021]** In one suitable embodiment, the relevant information to be included in the text message **14** by the consumer **10** is supplied on or in the media presentation providing the purchased product for sale to the consumer **10**. That is to say, the media presentation may optionally communicate to the consumer **10** what information to include in the text message **14** and where the text message **14** is to be sent. For example, the media presentation may show and/or announce “to purchase item X, text product code A1B2 to the SMS shortcode 555123.” The format of the data, which data is to be included and/or the order in which the data is to be included in the body of the text message may be communicated to the consumer **10** via the media presentation, or it may be prearranged or otherwise determined, or some combination thereof.

**[0022]** Upon receipt of the text message **14**, it is parsed by the system **30** and the particular information and/or data elements are identified. Therefrom, an appropriate order **32** is prepared by the system **30** and the order **32** is submitted to an order processing system or order management system (OMS) **22** of the merchant **20**. Suitably, the OMS **22** is a traditional or legacy OMS into which the merchant enters traditional MOTO transactions in the usual manner, and the order **32** is submitted directly thereto from the system **30**. Suitably, for the OMS **22** to properly process an order, the order preferably includes or contains the relevant purchase or order information which is organized and/or formatted in a particular manner designated by the particular OMS, e.g., the orders may include a number of fields that are populated with the appropriate data elements. Accordingly, the system **30** arranges, translates and/or otherwise manipulates the data elements or information received from the text message **14** (and/or where appropriate obtained from the CIS DB **31**) such that the order **32** conforms to the designated format appropriate for the OMS **22** to which it is being sent. For example, the system **30** optionally formats particular data elements received in the text message **14** or obtained from the CIS DB **31** and enters them into the appropriate fields designated by the OMS **22** so that the order **32** conforms thereto.

**[0023]** As shown in FIGURE 1, the OMS **22** processes orders and submits the transactions for payment processing in the usual manner to a payment system or network **40** that corresponds to the payment instrument or method employed for the respective purchase. Optionally, with certain types of transaction and/or for particular payment methods, the system **30** is further engaged to assist in the payment processing. For example, some transactions may involve an authentication protocol or initiative prescribed by the payment network **40** or the payment method may be such that additional security information or authentication credentials are sought from the consumer **10** to complete the payment processing. Such authentication protocols (e.g., Visa's 3-D Secure®, a.k.a. Verified by Visa (VbV), MasterCard's SecureCode®, and the like) are described in U.S. Provisional Patent Application No. 60/647,883, filed January 28, 2005, and U.S. Patent Application No. 11/340,887, filed January 27, 2006. Other payment methods (e.g., PayPal®), similarly may similarly seek authentication credentials (e.g., a password or the like) from the consumer **10** prior to authenticating or authorizing a transaction.

**[0024]** In general, the system **30** retrieves or otherwise requests the desired authentication credentials from the consumer **10** and returns them to the payment network **40**. Optionally, any authentication results generated by the payment network **40** are then obtained by the system **30** from the payment network **40** and forwarded to the consumer **10**. Suitably, in this capacity, the system **30** is implemented and/or functions essentially as described in the aforementioned Provisional U.S. Patent Application 60/647,883 and/or U.S. Patent Application 11/340,887.

**[0025]** With reference to FIGURE 1, in a suitable embodiment, the payment network **40** signals the system **30** or the system **30** is otherwise prompted to obtain authentication credentials from the consumer **10**. In response thereto, the system **30** sends an SMS or other text message **50** to the device **12** requesting that consumer **10** reply with the appropriate credentials (e.g., a password, PIN, etc.). The consumer **10** then manipulates or otherwise employs the device **12** to return an SMS or other text message **52** to the system **30**, e.g., including therein the requested credentials. Having received the text message **52**, the system **30** parses the message **52** and/or identifies the credentials returned by the consumer **10**. These returned credentials are then optionally formatted and/or otherwise appropriately arranged as designated or expected by the payment network **40**, and they are forwarded thereto. Suitably,



based on the credentials received by the payment network **40** from the system **30**, an authentication and/or authorization determination is made. Optionally, the system **30** retrieves or otherwise obtains the resulting determination from the payment network **30**, formats the same into an SMS or other text message **54**, and forwards the message **54** to the device **12** for receipt by the consumer **10**. Alternately, the system **30** may be equipped with or have access to an interactive voice response (IVR) system which is employed to request the authentication credentials from the consumer **10** (e.g., via a voice telephone call placed to the device **12** which is implemented as a mobile telephone). Similarly, the IVR system may also optionally be employed to return the resulting determination to the consumer **10**.

**[0026]** As can be appreciated from FIGURE 1, in connection with any given type of transaction, often multiple text, SMS or other like messages (e.g., messages **14**, **50**, **52** and **54**) are exchanged between the device **12** and the system **30** to complete the transaction. Additionally, depending upon the particular type of transaction, there may be an exchange of multiple messages between the device **12** and the system **30** before a completed order **32** can be submitted to the OMS **22**. For example, the information contained in message **14** may alternately be acquired by the system **30** via a plurality of separate queries and replies, or authentication may be executed before the order **32** is submitted. However, conventionally such messages are "session free." That is to say, in conventional text messaging there is no dedicated session established between the message sending and message receiving nodes. Rather, each message is essentially an autonomous communication.

**[0027]** Accordingly, it is desirable to recognize and/or group messages related to the same transaction to avoid confusion, e.g., if the same consumer **10** or device **12** is engaged in multiple transactions at the same time. More specifically, for example, a second transaction may be started by sending a second text message **14** before the first transaction is concluded by the sending of the message **54**. In this case, it becomes desirable, for example, to determine if a reply received by the system **30** from the device **12** relates to the first transaction or the second transaction.

**[0028]** In one suitable embodiment, the system **30** includes or otherwise has access to and/or maintains a transaction (TX) DB **33**. In the TX DB **33** various messages exchanged between the device **12** and the system **30** are stored, organized and/or grouped, for example, into records or the like according to the particular transaction to which they relate. For example, when the system **30**



receives the message **14** initiating a new transaction, it is assigned a unique TX ID or other like identifier and it is stored or otherwise recorded in the TX DB **33** under or otherwise indexed by this identifier. Similarly, the corresponding message **52** sent from the system **30** to the device **12** is likewise recorded in the TX DB **33** using the established TX ID, and so on for messages **54** and **56**. In this manner, the plurality of otherwise autonomous messages relating to one particular transaction are linked or chained together. Moreover, based on the particular type of transaction as determined from one or more of the previously exchanged messages corresponding to the same TX ID, the system **30** is able to know or predict the form and/or type of message that is expected next for that particular transaction. That is to say, by link or chaining the messages together in this manner, the system **30** is able to recognize where in the process a transaction is, i.e., how far the transaction has progressed at a given point in time. For example, at a particular point during a transaction, based upon one or more messages already recorded in the TX DB **33** under the given TX ID, the system **30** knows to expect authentication credentials or some other allowable form or type of reply or message from the device **12**. Accordingly, if the consumer **10** or device **12** is engaged in multiple transactions, based upon the form or type of message received from the device **12**, the system **30** is able to identify which transaction the message belongs to and record it in the TX DB **33** under or index by the proper TX ID. Moreover, for a given transaction, if an expected message is not received within a set or otherwise determined period of time, the system **30** may optionally "time out" or otherwise consider that transaction void.

**[0029]** With reference to FIGURE 2, suitably the text message processing system/server **30** is also provisioned to function without accessing the payment network. For example, as illustrated, the system **30** directly connects or otherwise communicates with a payment account processor or manager **42** which maintains an account for the consumer **10**. For example, the payment account processor/manager **42** may maintain for the consumer **10** a prepaid credit card account or a deposit account or other similarly funded account. Accordingly, when the text message **14** is received by the system **30**, if it identifies a payment account maintained by the processor/manager **42**, then the system communicates with processor/manager **42** to determine if sufficient funds are available to cover the purchase amount. Assuming the payment account is sufficiently funded, the processor/manager **42** is instructed by the system **30** to set aside the purchase amount from the remainder of



the account funds (i.e., so as to be otherwise unusable), and the order **32** is placed to the merchant **20**. Suitably, the order **32** still identifies the delivery destination as corresponding to the consumer **10** (e.g., either as indicated in the message **14** or as obtained from the CIS DB **32**). However, in this embodiment, the owner or operator of the system **30** assumes the payment obligation on behalf of the consumer **10** and seeks reimbursement therefor from the processor/manager **42**, i.e., out of the set aside funds. For example, the payment to the merchant **20** and the reimbursement from the processor/manager **42** is optionally automatically carried out via an electronic funds transfer or the like. Depending upon the relationship between the parties or agreed upon terms, the foregoing settlement may be conducted on a per transaction basis or in batches at scheduled or otherwise determined intervals.

**[0030]** Suitably, as illustrated in FIGURE 2, certain products and/or services purchased from the merchant **20**, may be amenable to "electronic delivery" via a text, SMS or other like message. Accordingly, optionally, the system **30** obtains the item to be delivered from the merchant **20** and formats and sends a suitable message **56** to the device **12**. More specifically, for example, the merchant **20** may sell wireless PINs (personal identification numbers) used to obtain wireless airtime, calling card minutes or the like. Accordingly, the wireless PIN or access code or call card number or the like is optionally obtained by the system **30** at or about the time the purchase is made, and sent from the system **30** to the device **12** in the text, SMS or other like message **56**.

**[0031]** With reference to FIGURE 3, the text message processing system/server **30** is also optionally provisioned to support non-commercial transactions or activities, e.g., such as obtaining requested information from a DB. As illustrated, the system **30** is operatively connected to or in communication with a information server **24**, e.g., which is a legacy information server such as a web server, DB server, some combination thereof or the like. Suitably, the information server **24** includes or otherwise has access to an information DB **26**, and upon request provides information therefrom in other than a text message or SMS format, e.g., as web pages or the like. Moreover, suitably the server **24** is not provisioned to receive and/or interpret text or SMS messages.

**[0032]** Accordingly, in the present embodiment, suitably, the text message **14** includes a requested for selected information from the DB **26**. In response to the received text message **14**, the system **30** parses the message **14** to identify the



request and formats and sends an appropriate signal or communication to server **24** to obtain the requested information therefrom. Having obtained the requested information, the system **30** then formats and/or otherwise includes the requested information in a text, SMS or other like message **58** which is returned to the device **12**. As can be appreciated the present embodiment has many applications, e.g., the present embodiment is optionally implemented to support mobile banking, i.e., to conduct balance inquires or otherwise check the status of an account or to obtain other account information which may be stored in the DB **26**. Optionally, in addition to merely requesting and/or obtaining information, the system **30** is optionally provisioned and/or used to manipulate information, e.g., the transfer funds from one bank account to another or the like. Accordingly, rather than message **14** including an information request, it includes instructions to achieve a selected manipulation of the information.

**[0033]** Of course, while not explicitly illustrated in FIGURES **2** or **3**, it is to be appreciated that authentication may still be carried out, e.g., optionally in a manner similar to that described with reference to FIGURE **1**. However, in any case, alternate authentication protocols may also optionally be implemented.

**[0034]** Suitably, the authentication infrastructure supported by the system **30** optionally uses different authentication technologies based on the type of transaction that is being processed. For example, the message **52** containing the authentication credentials is separate from the message **14** originating the transaction. The authentication credential request **50** and response message **52** are optionally exchanged using two different SMS Centers (SMSCs). Suitably, to force the response message **52** to use an SMSC different from the one used by message **50**, the "reply to addresses" in the SMS header of the message **50** is set to a different SMSC address. Operating in this manner with two different SMSCs allows for higher transactional security, particularly in the case of sensitive authentication credentials.

**[0035]** In connection with the particular exemplary embodiments presented herein, certain structural and/or function features are described as being incorporated in particular embodiments. It is to be appreciated that different aspects of the exemplary embodiments may be selectively employed as appropriate to achieve other alternate embodiments suited for desired applications, the other alternate embodiments thereby realizing the respective advantages of the aspects incorporated therein.



**[0036]** Additionally, it is to be appreciated that certain elements described herein as incorporated together may under suitable circumstances be stand-alone elements or otherwise divided. Similarly, a plurality of particular functions described as being carried out by one particular element may be carried out by a plurality of distinct elements acting independently to carry out individual functions, or certain individual functions may be split-up and carried out by a plurality of distinct elements acting in concert. Alternately, some elements or components otherwise described and/or shown herein as distinct from one another may be physically or functionally combined where appropriate.

**[0037]** In short, the present specification has been set forth with reference to exemplary embodiments. Obviously, modifications and alterations will occur to others upon reading and understanding the present specification. It is intended that the inventive subject matter be construed as including all such modifications and alterations insofar as they come within the scope of the appended claims or the equivalents thereof.

**[0038]** What is claimed is:

Claims:

1. A method of conducting a commercial transaction, said method comprising:

(a) receiving a text message from a first party purchasing a product from a second party, said text message being addressed to an address selected by the first party and including an identification of the product being purchased and an identification of a device from which the text message was sent;

(b) parsing the text message to extract the identification of the product and the identification of the device from the text message;

(c) selecting based upon the received text message a payment instrument to be used to pay for the purchase;

(d) establishing payment information related to the selected payment instrument and delivery information indicating where the purchased product is to be delivered;

(e) generating an order including the established payment information, delivery information and identification of the product being purchased; and,

(f) submitting the generated order to a legacy order management system of the second party.

2. The method of claim 1, wherein after the order is received by the order management system, the order management system submits a corresponding payment for processing to a payment processing network.

3. The method of claim 2, said method further comprising:

(g) receiving a signal from the payment processing network in response to the submitted payment;

(h) generating in response to the received signal a text message requesting authentication credentials;

(i) sending the text message generated in step (h) to the device of the first party;

(j) receiving a reply text message containing authentication credentials from the first party's device; and,

(k) forwarding the received authentication credentials to the payment network.



4. The method of claim 1, further comprising:  
maintaining a database of information for a plurality of first parties associated with respective device identifications, including a record for each first party containing a list of one or more payment instruments belonging to that first party.
5. The method of claim 4, wherein step (c) comprises:  
selecting the payment instrument from the record in the database corresponding to the first party associated with the identification of the device extracted in step (b).
6. The method of claim 1, wherein the payment instrument selected in step (c) is identified in the text message received in step (a).
7. The method of claim 1, further comprising:  
maintaining a database of information for a plurality of first parties associated with respective device identifications, including a record for each first party containing the delivery information for that first party.
8. The method of claim 7, wherein step (d) comprises:  
obtaining the delivery information from the record in the database corresponding to the first party associated with the identification of the device extracted in step (b).
9. The method of claim 1, wherein the delivery information is identified in the text message received in step (a).
10. The method of claim 1, said method further comprising:  
prior to step (a), providing an offer for the purchase of the product in a media received by the first party, said offer identifying the address to which the text message should be sent to purchase the product and describing how to identify the product being purchased in the text message.
11. The method of claim 10, wherein the media is television, radio or print media.
12. The method of claim 1, wherein the text message is in short message service (SMS) format.

13. The method of claim 12, wherein the address to which the text message is addressed is an SMS shortcode.

14. A text message order processing system comprising:

means for receiving text messages from consumers purchasing products from one or more merchants, each of said text messages being addressed to an address selected by the consumer and including an identification of the product being purchased and an identification of a device from which the text message was sent;

means for parsing each text messages to extract the identification of the product and the identification of the device from the text message;

means for selecting based upon each received text message a payment instrument to be used to pay for the purchase;

means for establishing payment information related to the selected payment instrument and delivery information indicating where the purchased product is to be delivered;

means for generating for each received text message an order including the established payment information, delivery information and identification of the product being purchased; and,

means for submitting the generated order to a legacy order management system of the merchant.

15. The text message order processing system of claim 14, wherein the address to which the text message is addressed is used to identify the order management system of the merchant to which the order is to be submitted.

16. The text message order processing system of claim 14, wherein after the order is received by the order management system, the order management system submits a corresponding payment for processing to a payment processing network.

17. The text message order processing system of claim 16, said system further comprising:

means for receiving a signal from the payment processing network in response to the submitted payment;



means for generating in response to the received signal a text message requesting authentication credentials;

means for sending the text message generated in step (h) to the device of the first party;

means for receiving a reply text message containing authentication credentials from the first party's device; and,

means for forwarding the received authentication credentials to the payment network.

18. A method of conducting a commercial transaction, said method comprising:

(a) receiving a text message from a first party making a purchase from a second party;

(b) identifying based upon the received text message a payment account of the first party to be used to pay for the purchase;

(c) sending a communication to a third party that maintains the payment account for the first party to determine if the payment account has sufficient funds available to make the purchase; and,

(d) if sufficient funds are available;

(i) instructing the third party to reserve those funds;

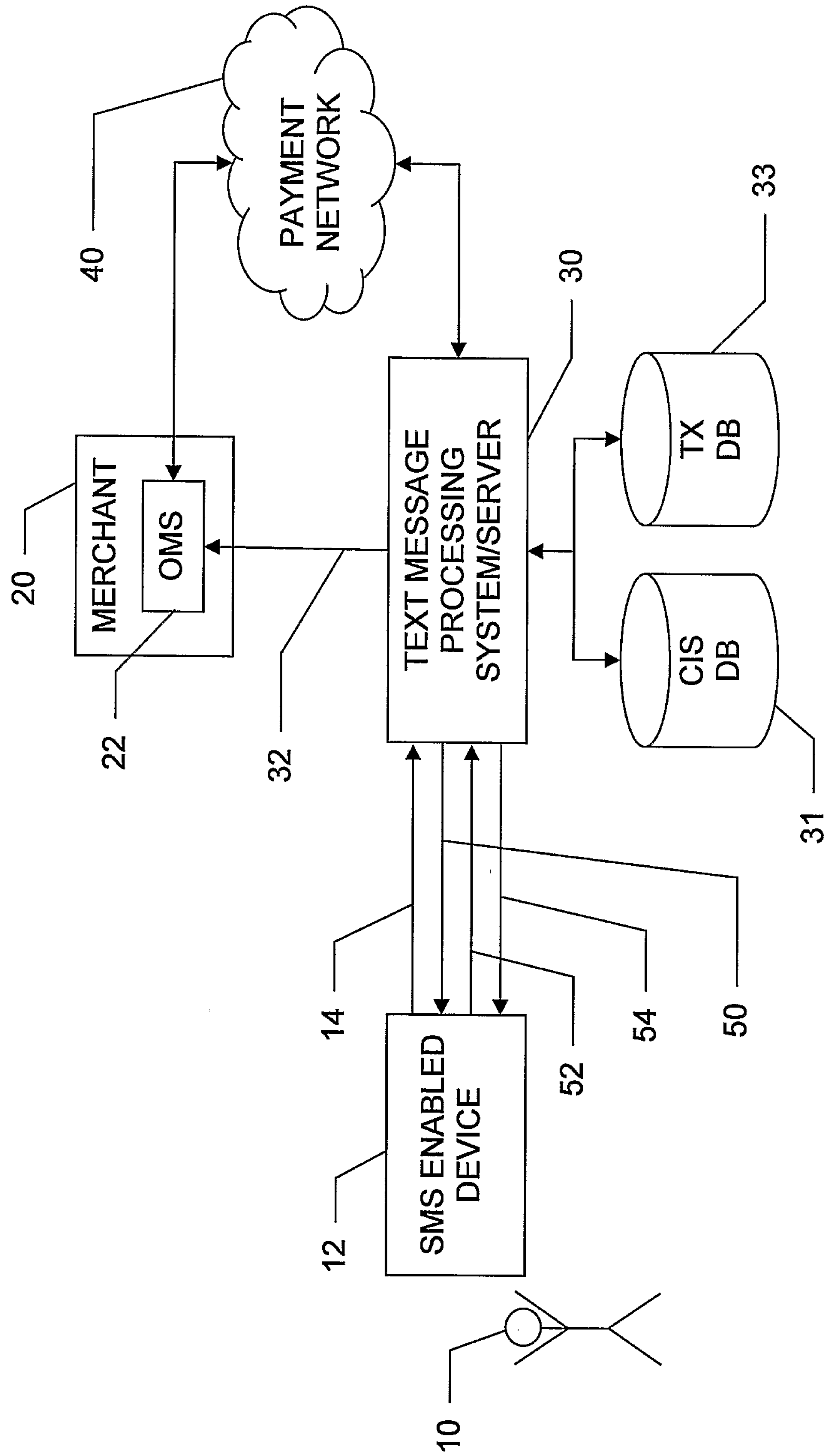
(ii) generating an order for the purchase;

(iii) submitting the generated order to a legacy order management system of the second party;

assuming an obligation to pay for the order on behalf of the first party;

and,

(iv) seeking restitution for the obligation to pay for the order out of the reserved funds.

**FIGURE 1**



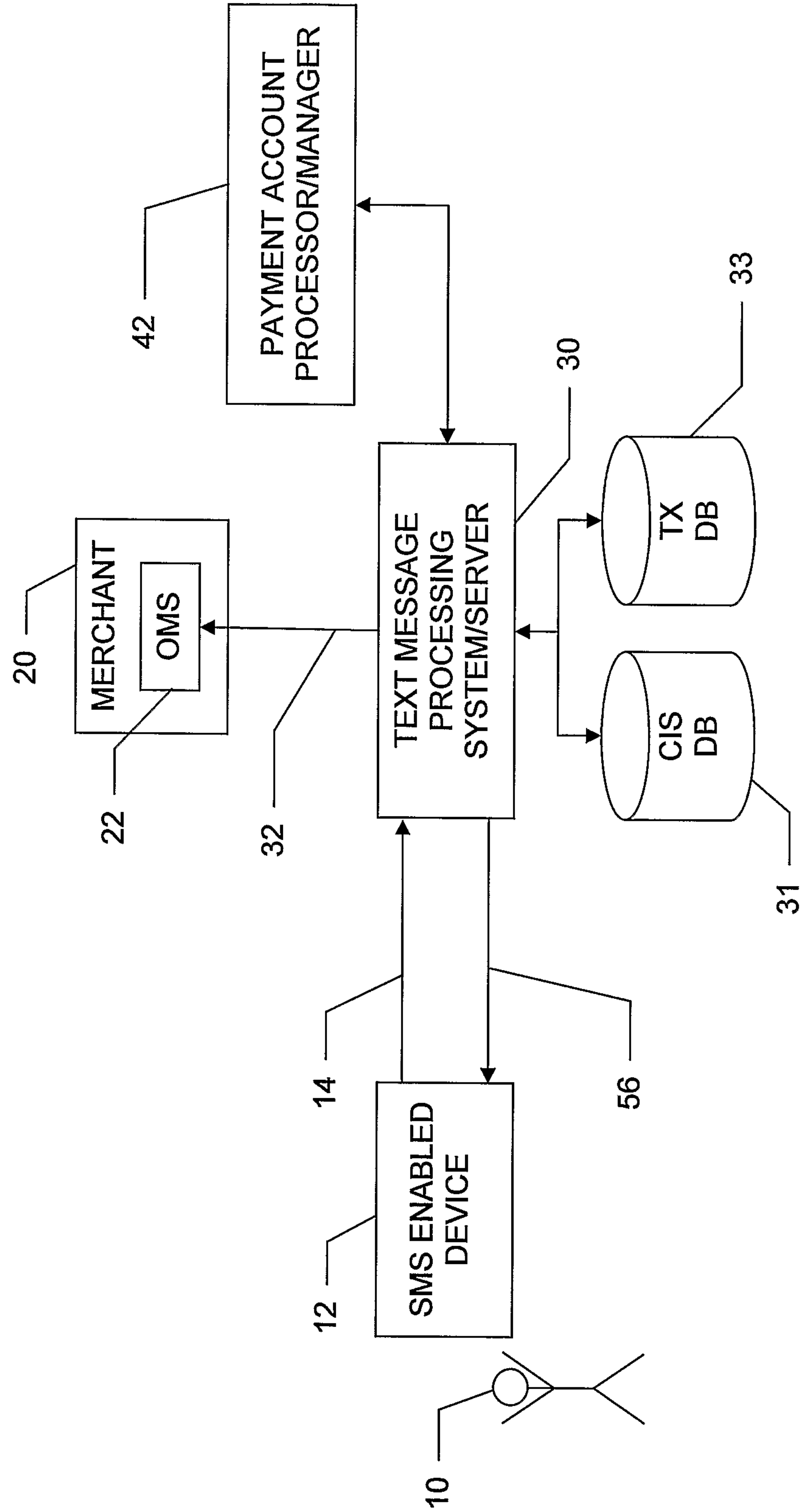
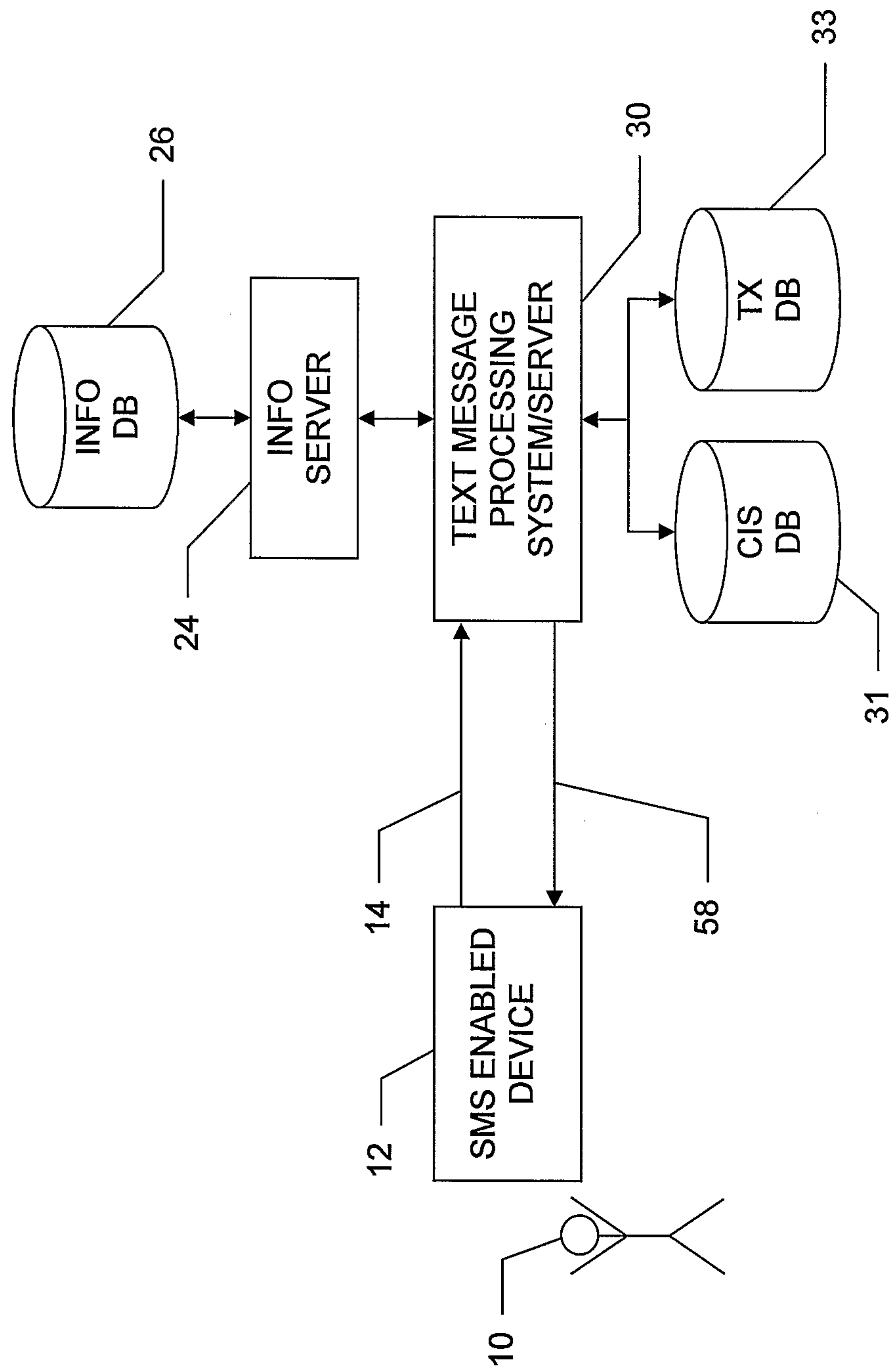


FIGURE 2

**FIGURE 3**



