(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
27 November 2003 (27.11.2003)

PCT

(10) International Publication Number
WO 03/098401 A2

(51) International Patent Classification[7]: G06F

(21) International Application Number: PCT/US03/15992

(22) International Filing Date: 16 May 2003 (16.05.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/381,395 16 May 2002 (16.05.2002) US

(71) Applicant: **NDCHEALTH CORPORATION** [US/US]; One National Data Plaza, Atlanta, GA 30329-2010 (US).

(72) Inventors: **ROWE, James Couser, III**; 352 Spring Willow Drive, Sugar Hill, GA 30518 (US). **PINSON-NEAULT, Roger, G.**; 4960 Red Robin Ridge, Alpharetta, GA 30022 (US).

(74) Agents: **SILVERIO, William, R.** et al.; Sutherland Asbill & Brennan LLP, 999 Peachtree Street, Atlanta, GA 30309-3996 (US).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 03/098401 A2

(54) Title: SYSTEMS AND METHODS FOR VERIFYING AND EDITING ELECTRONICALLY TRANSMITTED CLAIM CONTENT

(57) Abstract: Systems and methods verify the content of an electronically transmitted claim, such as a healthcare claim by intercepting the claim, reviewing the claim's contents, and comparing the claim to pre-established claim criteria established by a payer or both a healthcare service provider and payer. If the claim contains the appropriate content the claim is forwarded to its intended recipient, typically a payer such as an insurance company or government healthcare payer; otherwise the claim may be returned to the sender, e.g., a pharmacy, with an indication that it does not contain the correct content. Additionally, the claim may be edited by the system and forwarded in correct form to its intended recipient.

SYSTEMS AND METHODS FOR VERIFYING AND EDITING ELECTRONICALLY TRANSMITTED CLAIM CONTENT

FIELD OF THE INVENTION

The present invention relates generally to claim processing systems, and more particularly, to claim processing systems for verifying and editing claims electronically transmitted from healthcare service providers to payers, such as insurance companies.

BACKGROUND OF THE INVENTION

In recent years medical and prescription claim processing has become a highly automated process. Today, thousands of claims are electronically transmitted daily from healthcare service providers ("providers") to insurance companies and other payers (collectively, "payers"). These claims are processed and stored in near-real time, thereby expediting the process of paying healthcare service providers for their services.

Unfortunately, however, many electronically-transmitted claims are rejected by payers because the claims' contents are in error. In fact, payers typically reject almost 20 percent of electronically transmitted claims because of errors in the claims. Claim errors include insufficient information, improper information, and/or conflicting information. This problem is particularly challenging due to the wide variety of payers and medical and pharmaceutical plans, each of which often has its own standards dictating the content of an electronically-transmitted claim.

At a minimum, reducing the number of claim rejections would reduce costs associated with claim communication and processing. Additionally, reducing the number of claim rejections will increase the speed at which claims are processed

because claims will not need to be submitted multiple times to correct errors. Therefore, what is needed is an automated system and method for automatically reviewing the contents of a claim transmitted to a payer, and for identifying problems with the claim before it is transmitted to the payer. Preferably, such a system and method would also automatically edit the claim such that it complies with payer requirements.

SUMMARY OF THE INVENTION

The present invention verifies the content of an electronically transmitted claim, such as a healthcare claim (e.g., a pharmaceutical claim or a medical claim) by intercepting the claim, reviewing the claim's contents, and comparing the claim to pre-established claim criteria established by a payer or both the healthcare provider and payer. If the claim contains the appropriate content the claim is forwarded to its intended recipient; otherwise the claim may be returned to the sender, e.g., a pharmacy, with an indication that it does not contain the correct content. Alternatively, the claim may be altered by the system and forwarded in correct form to its intended recipient, typically a payer such as an insurance company or government healthcare payer.

The system of the present invention includes a pharmacy POS system, a host server, and a payer. The host server is in electrical communication with the provider and payer to transmit claims and claim-related communications (e.g., confirmations, acceptances, rejections, etc.) between the provider and payer. The system also includes a claim editing module, which may also be incorporated within the host server. The claim editing module receives pre-established claim criteria established by a payer or by a payer and provider, which the claim editing module stores in a database. The claim editing module can store such information for a plurality of payers. The claim editing module receives a claim intended for a particular payer, and compares the claim's contents with the pre-established criteria for the particular payer (and optionally, with pre-established criteria for the provider, e.g., pharmacy, transmitting the claim). The claim editing module is operable to identify those claims that do not meet particular criteria such that the

claims are unacceptable to the payer. Unacceptable claims can comprise claims lacking one or more required fields, claims having too many fields, or claims having data outside pre-established limits defined by the payer, a third party or the claim processing service.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S)

Having thus described the invention in general terms, reference will now be made to the accompanying drawings, which are not necessarily drawn to scale, and wherein:

FIG. 1 shows a claim processing system according to one aspect of the present invention.

FIG. 2 shows a claim processing system including a payer editing module, according to one aspect of the present invention.

FIG. 3 shows a block diagram flowchart showing a payer editing process according to one embodiment of the present invention.

FIG. 4 shows a claim processing system including a provider editing module and a payer editing module, according to one aspect of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

The present invention now will be described more fully hereinafter with reference to the accompanying drawings, in which preferred embodiments of the invention are shown. This invention may, however, be embodied in many different forms and should not be construed as limited to the embodiments set forth herein; rather, these embodiments are provided so that this disclosure will be thorough and complete, and will fully convey the scope of the invention to those skilled in the art. Like numbers refer to like elements throughout.

The present invention is described below with reference to block diagrams and flowchart illustrations of systems, methods, apparatuses and computer program products according to an embodiment of the invention. It will be understood that each block of the block diagrams and flowchart illustrations, and combinations of

blocks in the block diagrams and flowchart illustrations, respectively, can be implemented by computer program instructions. These computer program instructions may be loaded onto a general purpose computer, special purpose computer, or other programmable data processing apparatus to produce a machine, such that the instructions which execute on the computer or other programmable data processing apparatus create means for implementing the functions specified in the flowchart block or blocks.

These computer program instructions may also be stored in a computer-readable memory that can direct a computer or other programmable data processing apparatus to function in a particular manner, such that the instructions stored in the computer-readable memory produce an article of manufacture including instruction means that implement the function specified in the flowchart block or blocks. The computer program instructions may also be loaded onto a computer or other programmable data processing apparatus to cause a series of operational steps to be performed on the computer or other programmable apparatus to produce a computer implemented process such that the instructions that execute on the computer or other programmable apparatus provide steps for implementing the functions specified in the flowchart block or blocks.

Accordingly, blocks of the block diagrams and flowchart illustrations support combinations of means for performing the specified functions, combinations of steps for performing the specified functions and program instruction means for performing the specified functions. It will also be understood that each block of the block diagrams and flowchart illustrations, and combinations of blocks in the block diagrams and flowchart illustrations, can be implemented by special purpose hardware-based computer systems that perform the specified functions or steps, or combinations of special purpose hardware and computer instructions.

Exemplary embodiments of the present invention will hereinafter be described with reference to the figures, in which like numerals indicate like elements throughout the several drawings. FIG. 1 shows a block diagram claim processing system according to one aspect of the present invention. In particular,

FIG. 1 is an exemplary operating environment for implementation of certain embodiments of the present invention, including a pharmacy point-of-service ("POS") device **102**, a host server **104** and a payer system **108**, which are each configured for accessing and reading associated computer-readable media having stored thereon data and/or computer-executable instructions for implementing the various methods of the present invention. Generally, network devices and systems include hardware and/or software for transmitting and receiving data and/or computer-executable instructions over a communications link and a memory for storing data and/or computer-executable instructions. Network devices and systems may also include a processor for processing data and executing computer-executable instructions, as well as other internal and peripheral components that are well known in the art. As used herein, the term "computer-readable medium" describes any form of memory or a propagated signal transmission medium. Propagated signals representing data and computer-executable instructions are transferred between network devices and systems.

As shown in FIG. 1, a pharmacy POS device **102** may be in communication with the host server **104** via a network **106**. The pharmacy POS device **102** may be configured for receiving prescription claim data, creating prescription transactions therefrom and transmitting said prescription transactions to the host server **104**. Prescription claim data includes any data that is typically provided by a patient, pharmacist and/or other health care provider in relation to filling a prescription and/or requesting approval or authorization for payment from a payer or claim adjudicator. A payer may be an insurance company, a financial institution or another financial service provider. Prescription claim data may be input to the pharmacy POS device **102** by a pharmacist or other health care provider or may be received by the pharmacy POS device **102** in electronic form from an electronic prescription service (not shown). The pharmacy POS device **102** may be configured for handling other types of prescription transactions.

Prescription claim transactions are electronic records or messages intended to facilitate the communication of prescription information. For example, prescription claim transactions are intended to communicate prescription claim

data between pharmacies (i.e., providers) and payers. Although prescription claim transactions will be discussed hereinafter, it should be understood that the various systems and method of the invention may be practiced in connection with other types of prescription transactions or independently of prescription transactions (e.g., raw prescription data). The content and format of a prescription claim may vary depending on which standard or protocol is used. In general, however, prescription claim transactions will identify at least the intended payer recipient, the drug product to be dispensed, e.g., by National Drug Code number ("NDC#"), the quantity to be dispensed and the days supply, whether the prescription claim relates to a new prescription or a refill prescription, and billing-related information.

Prescription claim transactions may be transmitted from the pharmacy POS device **102** to the host server **104** in batch, real-time or near real-time. Pharmacy POS devices can connect to the host server **104** through a variety of methods, including dial-up, frame relay or leased-line. The entire system is preferably supported by redundant software, communications links, and uninterruptible power supplies, thereby ensuring that all connections will provide reliable, continuous operation. The system also preferably ensures that all of provider-submitted claims transactions are routed quickly, accurately, and consistently. The claim processing system eliminates provider postage and handling expenses by allowing pharmacies (or other healthcare entities) to submit claims to payer systems **108** electronically, thereby substantially reducing the costs of submitting claims and speeding up providers' payment cycles.

In certain embodiments, the host server **104** may serve as a clearinghouse for multiple payer systems **108**. As noted above, payer systems **108** may include systems operated by insurance companies, financial institutions and other financial service providers. In its capacity as a clearinghouse, the host server **104** is operable to parse prescription claim transactions and forward them to the appropriate payer system **108** for processing. Approval, authorization or rejection messages may be returned to the host server **104** from the payer systems **108** and such messages may be forwarded by the host server **104** to the pharmacy POS device **102**.

In serving as a clearinghouse, the host server **104** may also be configured for performing pre-processing and post-processing of prescription claim transactions. Pre-processing and post-processing refers to real-time or near real-time validation and management of prescription claim data in order to maximize prescription claim reimbursement and minimize claim submission errors. Pre-processing and post-processing may generate messaging alerts and/or retrospective reports supporting "usual and customary" price comparisons, average wholesale price ("AWP") edits, dispense as written ("DAW") brand appropriateness, and numerous other screening processes for facilitating rapid and accurate validation of prescription claims.

In accordance with the present invention, the host server **104**, and more particularly, the claim editing module **123**, may be configured for performing certain claim screening and editing processes for the detection and correction of claim errors in a prescription transaction. Therefore, the claim editing module **123** may comprise computer-executable instructions for performing various screening processes for reviewing and editing pharmacy claims and for managing related messaging and reporting functions. The host server **104** intercepts claims transmitted from the pharmacy POS device **102**, and the claim editing module **123** parses and examines the claim's contents. The claim editing module **123** then compares the claim to pre-established claim criteria established by a third party, typically, a payer. If the claim contains the appropriate content the claim editing module **123** forwards the claim to its intended payer; otherwise the claim may be returned to the sender with an indication that it does not contain the correct content. For instance, where a claim fails to meet payer-provided claim criteria, the claim editing module **123** can transmit a claim reject message to the pharmacy POS device **102**, so that the pharmacy can correct the claim error and retransmit the claim. Reject messages may indicate that a prescription claim has been rejected, provide a pharmacist with information about the claim error, and may encourage the pharmacist to correct the prescription claim.

The claim criteria can also dictate actions that should be taken, such as messages transmitted to a pharmacy concerning the prescription. The claim

criteria can also instruct the module **123** that the claim should be compared against databases of objective information, such as drug lists or physician DEA numbers, or against historical data, such as historical consumer claim information, stored in one or more databases associated with the host server **104** and described below. The claim may also be altered by the claim editing module **123** and forwarded in correct form to the intended payer system **108**. Finally, the claim screening and editing processes according to the present invention are also designed to capture certain prescription claim data for subsequent analysis and reporting related to claim errors transmitted from pharmacy POS devices **102**.

Referring again to FIG. 1, it will be appreciated that the pharmacy POS device **102** may be any processor-driven device, such as a personal computer, laptop computer, handheld computer and the like. In addition to a processor **110**, the pharmacy POS device **102** may further include a memory **112**, input/output ("I/O") interface(s) **114** and a network interface **116**. The memory **112** may store data files **118** and various program modules, such as an operating system ("OS") **120** and a practice management module **122**. The practice management module **122** may comprise computer-executable instructions for performing various routines, such as those for creating and submitting prescription claim transactions. I/O interface(s) **114** facilitate communication between the processor **110** and various I/O devices, such as a keyboard, mouse, printer, microphone, speaker, monitor, etc. The network interface **116** may take any of a number of forms, such as a network interface card, a modem, etc. These and other components of the pharmacy POS device **102** will be apparent to those of ordinary skill in the art and are therefore not discussed in more detail herein.

Similarly, the host server **104** may be any processor-driven device that is configured for receiving and fulfilling requests related to prescription claim transactions. The host server **104** may therefore include a processor **126**, a memory **128**, input/output ("I/O") interface(s) **130** and a network interface **132**. The memory **128** may store data files **134** and various program modules, such as an operating system ("OS") **136**, a database management system ("DBMS") **138** and the claim editing module **123**. The host server **104** may include additional

program modules (not shown) for performing other pre-processing or post-processing methods and for providing clearinghouse services. Those skilled in the art will appreciate that the host server **104** may include alternate and/or additional components, hardware or software. In addition, the host server **104** may be connected to a local or wide area network (not shown) that includes other devices, such as routers, firewalls, gateways, etc.

The host server **104** may include or be in communication with one or more database **105**. The database **105** may store, for example, data relating to pharmacies, payers, state prescription laws, prescription drugs, formularies, and consumers, such as typical doses filled by consumers, typical drugs prescribed by doctors, most common daily dose values, common daily dose values, likelihood indicators and other data used in the various claim screening and editing processes described herein after. The database **105** may also store reports and other data relating to the results of the claim screening and edit processes. The database **105** may of course also store any other data used or generated by the host server **104** or claim editing module **123**, such as data used in other pre-processing and post-processing methods and reports generated thereby. Although a single database **105** is referred to herein for simplicity, those skilled in the art will appreciate that multiple physical and/or logical databases may be used to store the above mentioned data. For security, the host server **104** may have a dedicated connection to the database **105**, as shown. However, the host server **104** may also communicate with the database **105** via a network **106**.

The network **106** may comprise any telecommunication and/or data network, whether public or private, such as a local area network, a wide area network, an intranet, an internet and/or any combination thereof and may be wired and/or wireless. Due to network connectivity, various methodologies as described herein may be practiced in the context of distributed computing environments. Although the exemplary pharmacy POS device **102** is shown for simplicity as being in communication with the host server **104** via one intervening network **106**, it is to be understood that any other network configuration is possible. For example, the pharmacy POS device **102** may be connected to a pharmacy's local or

wide area network, which may include other devices, such as gateways and routers, for interfacing with another public or private network **106**. Instead of or in addition to a network **106**, dedicated communication links may be used to connect the various devices of the present invention.

Those skilled in the art will appreciate that the operating environment shown in and described with respect to FIG. 1 is provided by way of example only. Numerous other operating environments, system architectures and device configurations are possible. For example, the invention may in certain embodiments be implemented in a non-networked environment, in which a stand-alone pharmacy POS device **102** executes one or more claim editing module(s) **123**. Accordingly, the present invention should not be construed as being limited to any particular operating environment, system architecture or device configuration.

Using the claim processing system described above, providers can transmit in real-time provider-submitted claims to an appropriate payer and return a claim approval or rejection within seconds. Thus, the claim processing system of the present invention can streamline provider claim processing operations and increase productivity for both providers and benefit plans. To enable the provider to input claims for electronic transmission to the claim processing system and payer, the pharmacy POS device **102** may comprise software that receives claim data entered by a user through a graphical user interface (GUI). According to one aspect of the invention, no claim processing software resides on the POS device **102**, other than an Internet browser, because the GUI and one or more interfaces for inputting claim data are stored by the claim processing system and remotely accessible by the POS device **102** via an Internet connection, satellite or cellular network, LAN, WAN, or the like. Using the GUI information such as a patient's name, birth date, address, telephone number and other identifying information is entered with claim-specific information, such as drug prescription or medical service or procedure. The identity of the pharmacy is also included in the claim data along with additional information known to those of ordinary skill in the art.

According to one aspect of the invention the claim data fields are defined by a particular payer such that the POS device **102** should provide only the claim data requested by the payer to which the claim is transmitted. According to another aspect of the invention the claim data is defined by a pre-established standard or transaction format well known to those of skill in the art. Once the claim is entered, it is transmitted to the host server **104** via any of the methods described above. The claim is then processed by the host server **104** and forwarded to the appropriate payer system **108**. Preferably, the claim processing system, and more particularly, the host server **104**, is an all-payer solution allowing providers to use a single application to connect to key government and commercial payers across the country.

FIG. 2 shows a claim processing system according to a preferred embodiment of the present invention. Like the system of FIG. 1, the system includes a pharmacy POS device **215**, a host server **220** and a payer system **225**. Similar elements described with respect to FIG. 1 are illustrated in dashed lines and as such, are not further described in FIG. 2. However, unlike the system of FIG. 1, the claim editing module **123** of FIG.1 is illustrated in FIG. 2 as a payer editing module **235**. Although the payer editing module **235** is illustrated and discussed herein as separate from the host server **220**, it should be appreciated that the payer editing module **235** can be included in part or in whole within the host server **220** such that some or all of the functions of the payer editing module **235** are internal to the host server **220**. Likewise, the host server **220** may include algorithms or hardware and software that work in combination to effect the functions described herein with respect to the payer editing module **235**. Briefly, the payer editing module **235** permits the claim processing system of FIG. 2 to review claims according to payer-defined criteria stored in the database(s) **237** to allow the system to identify claims that the payer system **225** would otherwise determine as having some type of problem upon receipt (e.g., the claim is formatted incorrectly or include values that the payer system **225** will not accept).

According to one preferred embodiment of the invention, the payer editing module **235** receives and reviews claims submitted by the provider **215** to the

payer system **225** and/or host server **220**. The payer editing module **235** is operable to identify those claims that do not meet payer system **225** criteria such that the claims are unacceptable to the payer system **225**. Unacceptable claims can comprise claims lacking one or more required fields, claims having too many fields, or claims having data outside pre-established limits defined by the payer, a third party or the host server **220**.

In order to identify incomplete or incorrect claim data, the payer editing module **235** preferably identifies, upon receipt of a claim, the intended payer system **225** to which the claim is directed. Additionally, the specific pharmaceutical or medical plan for a particular payer, as identified by the claim, is also determined, as is described in greater detail below. Using this information the payer editing module **235** retrieves the appropriate claim criteria required by the intended recipient payer system **235** for analyzing the claim. This claim criteria may be stored in data files local to the host server **104**, or in one or more databases **237** local or remote to the host server **104**. Therefore, the payer system **225** provides the payer editing module **235** a detailed list of each claim criteria (or component) the payer system **225** requires such that a claim can be processed and is not considered incomplete. This detailed claim information may be provided by the payer system **225** to the payer editing module **235** via electronic communication, such as via a web page operated by the host sever **220** and providing the payer system **225** a GUI for inputting and/or identifying the claim data the payer system **225** needs to process a claim. This information could also be supplied to the payer editing module **235** via one or more forms received by an administrator or payer editing module **235** data entry person for input into the payer editing module **235**. Such forms may be completed by the payer system **225** to identify claim criteria that the payer system **225** wishes the payer editing module **235** to review. The claim criteria may not only indicate the required claim format and claim fields, but also appropriate ranges of data acceptable to the intended recipient payer system **225**. Furthermore, as discussed in greater detail below, the claim criteria may indicate parameters permitting the payer editing module **235** to

edit the claims as necessary to comply with the payer defined claim criteria. Therefore, the present invention permits parameter-driven claim edits.

As an illustrative an non-limiting example, the claim criteria may require that a checksum digit be included in to the claim contents. Therefore, the payer editing module will compare the claim to the claim criteria, note that the claim does not include a checksum digit, and examine the claim criteria to determine if the payer editing module **235** is permitted to edit the claim by adding the checksum to the claim. Where the claim criteria so permits, the payer editing module will follow the instructions provided by the claim criteria in correcting the claim.

As noted above, it will be appreciated by those of ordinary skill in the art that the payer editing module **235** comprises at least one database, e.g., database **237**, for storing the requisite claim criteria required to process claims for payer systems **225** that wish to receive claims verified using the system. Because each payer system **225** may require different criteria to process claims, separate claim criteria files may be maintained and accessed by the payer editing module **235** for each payer, where the payer editing module **235** first identifies the payer system **225** to which a claim generated by a provider **215** is intended, and thereafter compares the claim data to the criteria for the identified payer system **225**.

The payer system **225** may be identified in the claim data or by data accompanying the claim data. For instance, where the communication is electronic using Internet Protocol, one or packets comprising a header may reveal the identity of the intended payer system **225** to which the claim data is intended to be received. This information is intercepted by the host server **220**, which identifies the pharmacy POS device **215** and the payer system **225**. The host server **220** may examine the provider (i.e., the transmitting pharmacy) identity to determine whether the provider's claims should be examined by the payer editing module **235** and if so, the claim criteria the that should be used to examine the submitted claim data. For example, although multiple providers **215** may utilize the host server **220** (e.g., for the services identified above, including its function as a network provider), some of the providers **215** may elect not to use the payer editing module **235** described herein. Therefore, the host server **220** can identify the origin of the

provider and intercept for screening by the payer editing module **235** only those claims associated with providers that wish to use, or pay for, the payer editing module **235**. According to another aspect of the invention, the identity of the payer system **225** may also be used to determine whether a claim is reviewed by the payer editing module **235**.

After claims are compared to the payer-identified claim criteria, a comprehensive report may be created at the end of transmission which indicates whether it has passed the payer editing module **235** and if the claim will be forwarded to the intended payer system **225**. The payer editing module **235** thus performs real-time validation and data management of pharmacy claim submission data to maximize claim reimbursement and minimize claim submission errors. The present invention provides unparalleled flexibility, allowing for parameter-driven edits, including editing actions, messages and thresholds based on provider business requirements.

The present invention will be better understood with reference to an illustrative example, the basic process of which is illustrated in the block diagram flow chart of FIG. 3. Upon creating a claim (block **300**), a pharmacy POS device **215** submits a claim, e.g., corresponding to a pharmaceutical prescription, to the payer system **225** (block **305**). The host server **220** then intercepts and parses the claim to identify the intended payer system (block **310**), and determines if the payer system **225** is a pharmacy that has subscribed to the payer editing module **245** (block **315**). If so, the host server **220** forwards the claim to the payer editing module **245** (block **320**). Otherwise, the claim is passed to the payer system without further screening (block **325**). When the payer editing receives the claim, the payer editing module **235** retrieves the appropriate payer claim criteria (block **330**) for evaluating the claim and then compares the claim to the payer claim criteria (block **335**) to determine if the claim contains the appropriate content, including whether the claim is in a format supported by the intended payer, if the claim contains the appropriate fields, if the claim fields include correct data defined by the payer or a third party, and/or if the claim contents fall within threshold values provided by the payer or based on third party information. As an

illustrative example, a payer may have established claim criteria requiring that a person code within a pharmaceutical claim must have a value of "01" or higher. If a claim, submitted in the syntactical format as dictated by the payer, contains a person code with a value of "00", implementation instructions provided by the payer editing system will analyze the claim, determine that only person codes of "01" and greater should be accepted, and the claim is rejected back to the pharmacy with an appropriate rejection code (e.g., "Person Code Rejection")to allow the claim to be resubmitted with the correct information.

If the claim complies with the payer claim criteria (block **340**) the payer editing module **235** will forward the claim to the payer (block **325**). Alternatively, the payer editing module **235** may identify that the pharmacy claim does not meet the payer claim criteria (block **340**). As another example, the claim may not meet a payer protocol that is required for the payer system **225** to process the electronic claim. As described above, the payer editing module **245** can make this determination based upon a comparison of the claim data (e.g., the claim protocol) with claim criteria (e.g., required claim protocol) provided by the payer system **225**. The payer editing module **245** can then edit the claim (block **350**), if possible and/or instructed to do so by the payer provided criteria (block **345**), to conform to the payer criteria, or alternatively, the payer editing module can identify the problem and return the claim to the provider with an error or reject message identifying the problem (block **360**) so that the provider can take the necessary steps to correct the claim. If the payer editing module **245** edits the claim (block **350**) to conform to the payer criteria as instructed by the claim criteria provided by the payer, the claim may then be transmitted to the payer system (block **325**), and the changes to the claim are logged (block **355**) such that the changes can be viewed by the payer or pharmacy at a later time via a payer edit interface (not illustrated) of said host server. The payer edit interface may be accessible by the payer system via the Internet such that any and all claim edits made be viewed via a graphical user interface.

Because the payer-provided claim criteria is highly customizable on a payer-by-payer basis, the system maximizes claim reimbursement and minimizes

errors through customizable financial and validation edits. Therefore, providers can ensure appropriate reimbursement for pharmacy claims and optimize their market share and rebate program participation. Additionally, because the system provides real-time messaging alerts or retrospective reports supporting Usual & Customary price comparisons, AWP edits, DAW brand appropriateness, and numerous other edits, payer profitability can be maximized. Additionally, by reducing potential claim submission errors at the point of sale, the provider can receive maximum reimbursement value without allocating unnecessary time and resources retrospectively.

Non-limiting examples of the types of screening edits that may be executed by the payer editing module **235** at the payers' request include those listed in Table 1, below:

Edit Name	Description
AWP Validation Edit	Edit may validate the submitting cost against an outside cost database, e.g., within database **237**.
Companion Product Messaging Edit	This edit may be invoked where a selected medication matches a companion OTC product, as identified in a database of OTC products (stored within database **237**). Recommendations for the OTC product may be kicked back to the pharmacy prior to the claim being processed.
DEA Edit	Validates the presence and format of the submitted physician DEA number. Compares DEA number to the federal NTIS file, updated monthly.
Diagnosis Code Edit	Edit ensures an entry in the "Diagnosis Code" field included within a claim.
Duplicate Claim Edit	May be used to determine if a payer receives multiple submissions for a claim for the same Cardholder, Medication, and Date of Service within a defined period of time in which the claim has previously been paid. Returns a rejection response to pharmacy requiring pharmacy interaction.
Expected Reimbursement Edit	Edit identifies variances in claim reimbursement by comparing third party plan payment against the ingredient cost and dispensing fee submitted.
Look alike, sound alike	Used to verify that an error has not been made in the dispensing of the product

Edit Name	Description
Typical Dosing	Used to verify that the prescription, as filled, provides the appropriate dosing for the patient, given age and gender

Table 1: Example Payer Edits

Next, FIG. 4 shows a host server including both a provider editing system and a payer editing module, according to one aspect of the present invention. Therefore, the system **450** illustrated in FIG. 4 combines the functionality described above with respect to FIGS. 2 and 3 with provider-submitted claim criteria. As a result, both providers **415** and payers **425** can identify claim errors rapidly to minimize delay and unnecessary expenses in processing claims.

The system of FIG. 4 is identical to the system of FIG. 2 but for the addition of a provider editing module **435**. Thus, in addition to the payer editing process described above with respect to FIGs. 2 and 3, the claims undergo a provider-based claim screening and edit process. Like the systems of FIG. 1 and 2, the system includes a pharmacy POS device **415**, host server **420** and payer system **425** in communication via a network **406**. Although the provider editing module **435** is illustrated and discussed herein as separate from the host server **420**, it should be appreciated that the provider editing module **435** can be included in part or in whole within the host server **420** such that some or all of the functions of the provider editing module **435** are internal to the host server **420**. Likewise, as described above with respect to FIG. 1, the host server **420** may include algorithms or hardware and software that work in combination to effect the functions described herein with respect to the provider editing module **435**.

According to one preferred embodiment of the invention, the provider editing module **435** receives and reviews claims submitted by the pharmacy POS device **415** to the payer system **425** and/or host server **420**. The provider editing module **435** is operable to identify those claims that do not meet provider-established criteria such that the claims are in a form that the provider (e.g., pharmacy) deems undesirable. Unacceptable claims can comprise claims having data outside pre-established limits defined by the provider, a third party or the host server **420**.

In order to identify incomplete or incorrect claim data, the provider editing module **235** may identify, for each provider, the claim criteria required by the provider. Therefore, the provider may provide the provider editing module **435** a detailed list of each claim criteria (or component) the provider requires such that a claim can be processed and is not considered incomplete. It will be appreciated by those of ordinary skill in the art that the provider editing module **435** is in communication with at least one database **437** for storing the requisite provider claim data required to process claims for providers that wish to utilize the provider editing module **435**. Because each provider may require different criteria to process claims, separate claim criteria files may be maintained and accessed by the provider editing module for each provider, where the provider editing module **435** first identifies the provider which generates a claim, and thereafter compares the claim data to the provider-identified or third party criteria. Alternatively, the provider editing module **435** can independently review the claims to ensure that no fields are blank or empty; in such a scenario the provider editing module **435** need not receive any information from the pharmacy POS system **415** other than the claim data.

The function of the system illustrated in FIG. 2 will be better understood with reference to the following example. For instance, a pharmacy may submit a claim corresponding to a pharmaceutical prescription to the host server **420**. The host server **420** identifies that the provider is a pharmacy that has subscribed to the provider editing module **435**, and as such, forwards the claim to the provider editing module **435**. The provider editing module **435** examines the claim to determine if the claim contains the appropriate data, including whether the appropriate fields contain data and whether the data within those fields is within a correct threshold. For example, the provider editing module **435** may identify that the pharmacy should be requesting a $20 reimbursement from a payer system **425** instead of a $10 reimbursement requested in the electronic claim. The provider editing module **435** can make this determination based upon a comparison of the claim data with criteria provided by the payer system **425**, information provided by the host server **420**, or information provided by a third party (e.g., a drug database)

in communication with the host server **420**. Accordingly, the provider editing module **435** can change the reimbursement request to $20 and forward the claim to the appropriate payer system **425**. Alternatively, where a claim is incomplete or lacks a field that is unknown to the provider editing module **435**, the provider editing module **435** can identify the problem and return the claim to the provider **415** with a rejection message or an error identifying the problem so that the provider can take the necessary steps to correct the claim. Continuing with the example, where the payer system **425** approves the claim, the transaction proceeds back though the provider editing module **435** so that the provider editing module **435** can maintain an appropriate record of the transaction (e.g., that the provider editing module **435** saved the provider $10 on a claim accepted by the payer system **425**).

Many modifications and other embodiments of the invention will come to mind to one skilled in the art to which this invention pertains having the benefit of the teachings presented in the foregoing descriptions and the associated drawings. Therefore, it is to be understood that the invention is not to be limited to the specific embodiments disclosed and that modifications and other embodiments are intended to be included within the scope of the appended claims. Although specific terms are employed herein, they are used in a generic and descriptive sense only and not for purposes of limitation.

THAT WHICH IS CLAIMED:

1. A method for verifying the content of an electronically transmitted claim, thereby reducing the likelihood that said claim need be transmitted multiple times, comprising:

intercepting a claim generated by a provider, wherein said claim comprises a plurality of claim contents and wherein said claim is directed to a recipient;

reviewing said plurality of claim contents;

comparing said plurality of claim contents to pre-established claim criteria established by said recipient; and

where said plurality of claim contents meet said pre-established claim criteria, forwarding the claim to said recipient identified by at least of said plurality of claim contents.

2. The method of claim 1, further comprising returning the claim to the provider with an indication that said claim does not contain the correct claim contents when at least one of said plurality of claim contents fails to meet said pre-established criteria.

3. The method of claim 1, further comprising forwarding a pre-defined message to the provider when at least one of said plurality of claim contents fails to meet said pre-established criteria.

4. The method of claim 1, further comprising editing at least one of said plurality of claim contents when said plurality of claim contents fail to meet said pre-established claim criteria.

5. The method of claim 4, wherein editing at least one of said plurality of claim contents comprises editing at least one of said plurality of claim contents when said pre-established claim criteria instruct said edit.

6. The method of claim 4, further comprising forwarding the edited claim to said recipient identified by at least of said plurality of claim contents.

7. The method of claim 4, wherein editing comprises editing at least one of said plurality of claim contents to create an edited claim meeting said pre-established claim criteria.

8. The method of claim 4, further comprising storing said at least one of said plurality of claim contents prior to said editing.

9. The method of claim 8, further comprising storing said at least one of said edited claim contents after said editing.

10. A system for verifying the content of an electronically transmitted claim, comprising:

a provider device, wherein said provider device is operable to generate a claim comprising a plurality of claim contents and directed to a recipient in said system; and

a host server, in electrical communication with the provider device, wherein said host server is operable to intercept said claim and forward said claim to a payer editing module, where said payer editing module is operable to compare said plurality of claim contents to claim criteria provided to said host server by said recipient, and

wherein said payer editing module is operable to forward said claim to said recipient when said plurality of claim contents meet said claim criteria.

11. The system of claim 10, wherein said host server comprises said payer editing module.

12. The system of claim 10, further comprising at least one database, wherein said at least one database stores said claim criteria provided by said recipient.

13. The system of claim 10, wherein said provider device is operable to generate a pharmaceutical claim.

14. The system of claim 10, wherein said payer editing module is operable to transmit a reject message to said recipient when said plurality of claim contents fail to meet said claim criteria.

15. The system of claim 10, wherein said payer editing module is operable to edit said claim such that said edited claim meets said claim criteria.

16. The system of claim 10, wherein said payer editing module is operable to edit said claim based on said claim criteria, such that said edited claim meets said claim criteria.

17. The system of claim 10, wherein said claim criteria instruct said payer editing module to edit said claim such that said edited claim meets said claim criteria.

18. The system of claim 10, wherein said recipient is in electrical communication with said host server via the Internet.

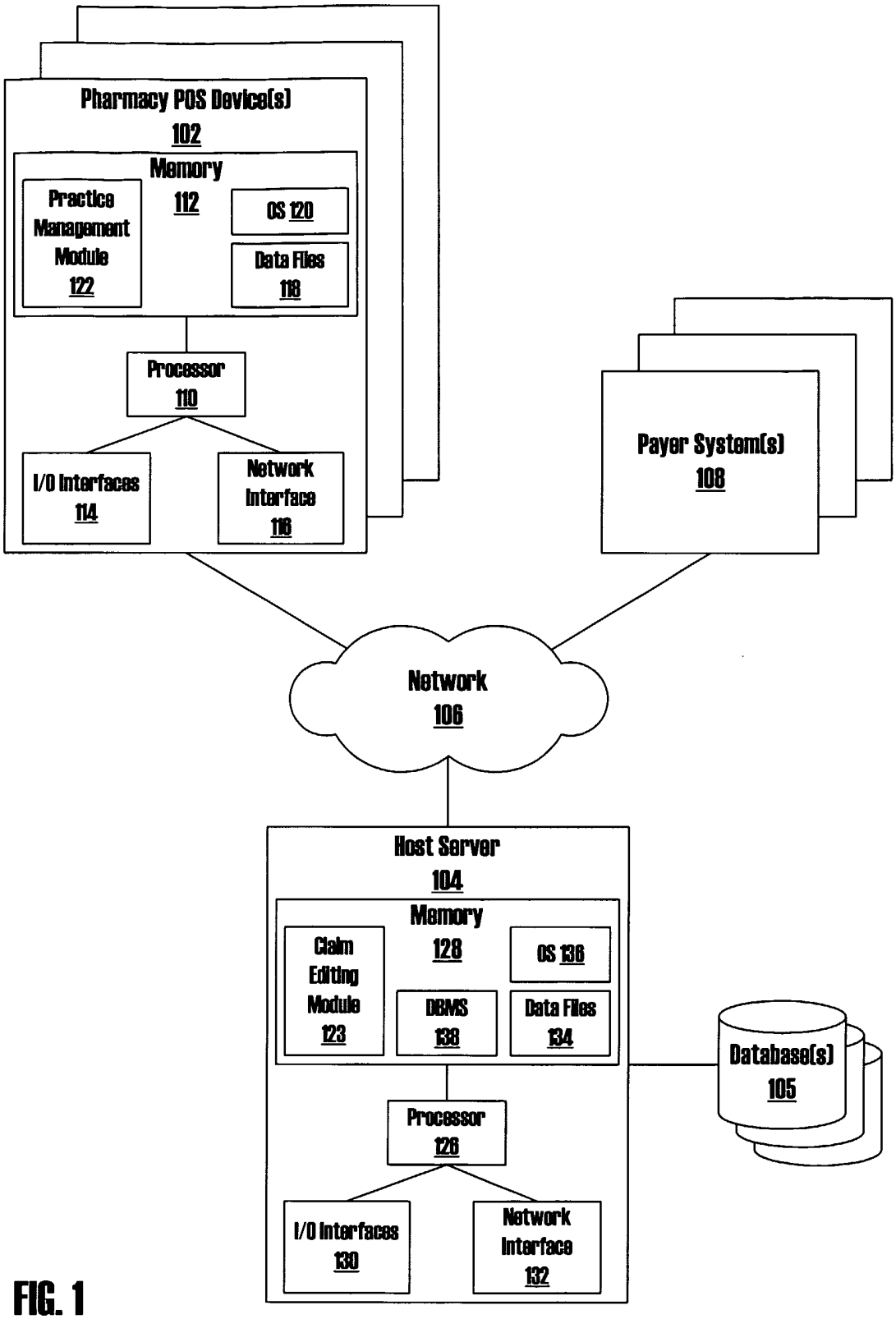
Pharmacy POS Device(s)
102
Memory
112
Practice Management Module
122
OS 120
Data Files
118
Processor
110
I/O Interfaces
114
Network Interface
116
Payer System(s)
108
Network
106
Host Server
104
Memory
128
Claim Editing Module
123
OS 136
DBMS
138
Data Files
134
Database(s)
105
Processor
126
I/O Interfaces
130
Network Interface
132

FIG. 1

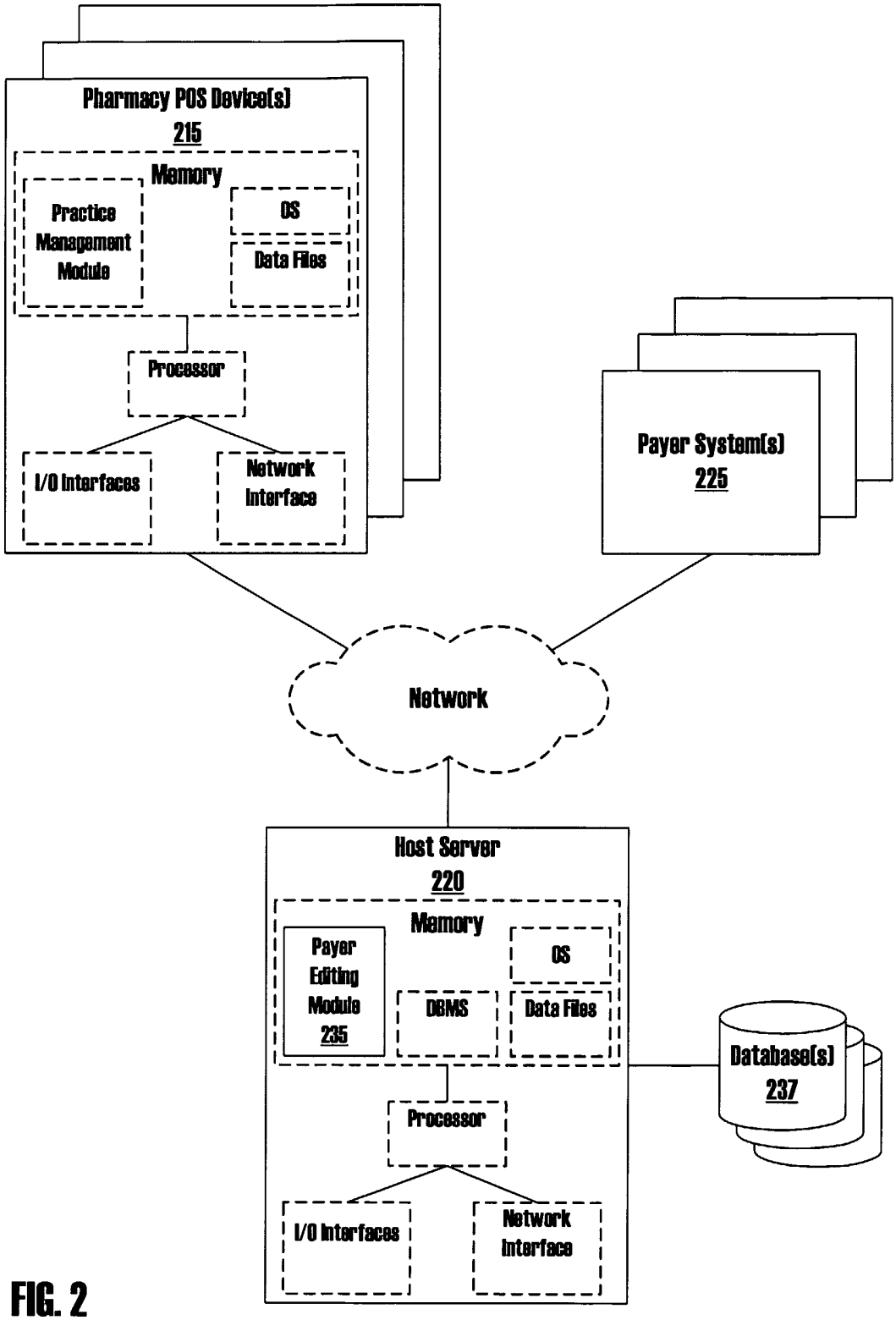

FIG. 2

AO 914870.1

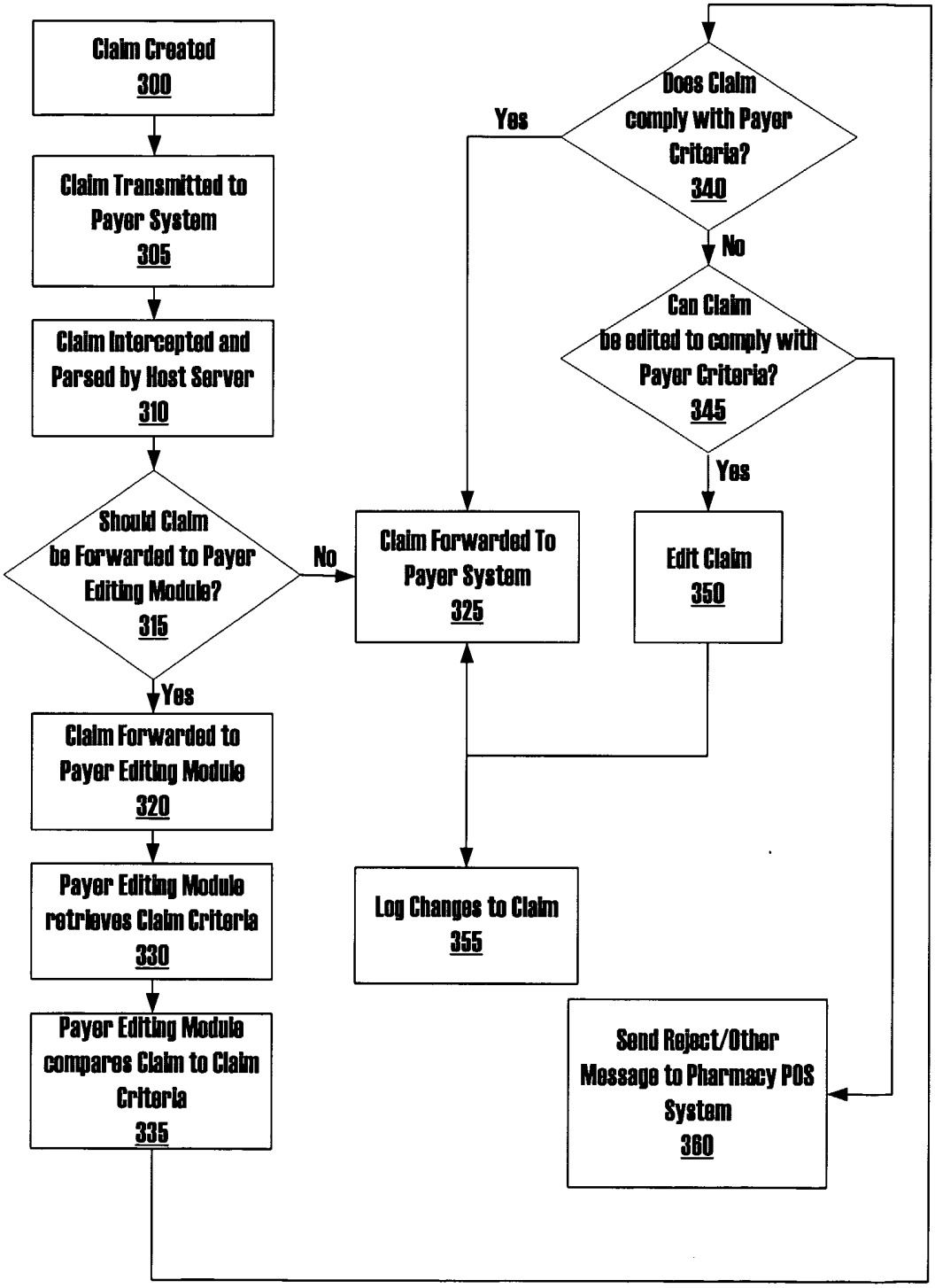

FIG. 3

AO 914870.1

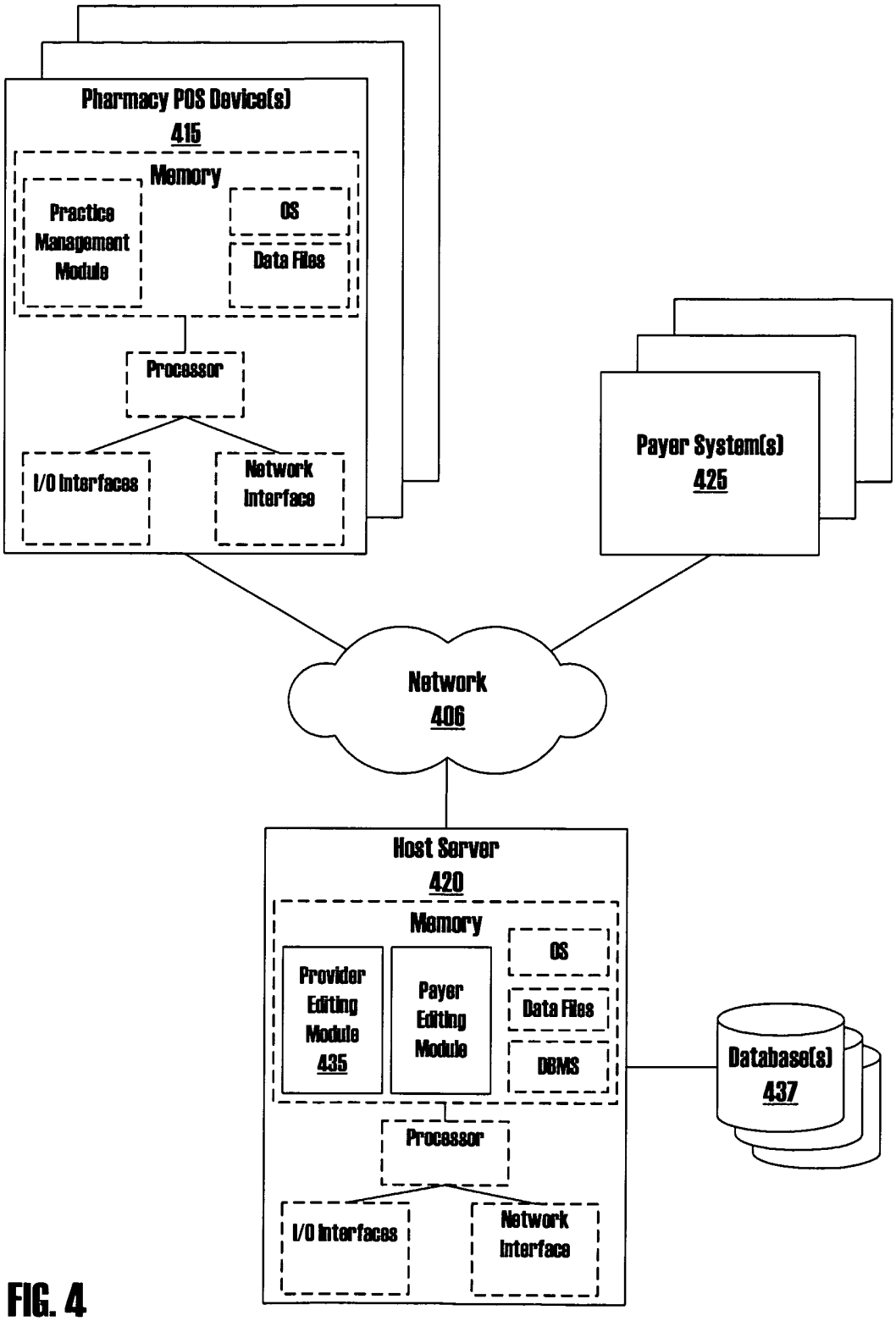

FIG. 4

AO 914870.1