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## CONNECTING BNPL PROVIDERS AND ENSURING REPAYMENT

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**TITLE: “CONNECTING BNPL PROVIDERS AND  
ENSURING REPAYMENT”**

**VISA**

**INVENTORS:**

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**JENNY ABRAHAM**

## **TECHNICAL FIELD**

[0001] This disclosure relates generally to the field of short-term financing in the form of BNPL (Buy Now, Pay Later). More particularly, the present disclosure relates to a method and system for connecting BNPL providers and ensuring repayment.

## **BACKGROUND**

[0002] “Buy Now, Pay Later” (BNPL) is an alternative payment method to existing payment method that allows customers or users to purchase products and services without having to commit to the full payment amount up front. It is an unsecured consumer credit and an increasingly popular fintech-enabled payment option, most commonly offered on e-commerce platforms. In the current scenario various BNPL providers have their independent scoring mechanisms and but do not have access to the line of credit provided by other BNPL providers. As the various BNPL providers don’t have access to the data of finances approved/rejected by other BNPL providers, this might lead to BNPL providers lending funds beyond what is allowable by a customers credit score. Therefore there is a need for a system which acts a middle ware between various BNPL providers, so that the BNPL providers can access the line of credit provided by other BNPL providers so as to decrease the probability of delinquency and protecting BNPL providers.

[0003] Therefore there is a need for an efficient way of solving one or more of the above mentioned problems.

## **SUMMARY**

[0004] One embodiment of the invention includes a system that is managed by a BNPL advisor which allows for BNPL providers to make an intelligent decision when approving loans requested by cardholder. The BNPL advisor consolidates borrowing and repayment behavior onto a database of every card holder from different BNPL providers. This proprietary database would update the borrowed amount & returned amount through installments through an asynchronous connection to each BNPL provider – updating the entry whenever a repayment or borrowing is made. Using this data along with BNPL advisors own transaction data, a score that indicates the probability of complete repayment is generated and passed to the BNPL provider. This system allows for various BNPL providers to communicate and update credit limit of a cardholder through the BNPL

advisor. It also works in cross border lending and ensures that BNPL providers are protected against delinquency.

**[0005]** A better understanding of the nature and advantages of embodiments of the invention may be gained with reference to the following detailed description and accompanying drawings.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

**[0006]** The features and characteristics of the present invention, as well as the methods of operation and functions of the related elements of structures and the combination of parts and economies of manufacture, will become more apparent upon consideration of the following description and with reference to the accompanying drawings, all of which form a part of this specification, wherein like reference numerals designate corresponding parts in the various figures. It is to be expressly understood, however, that the drawings are for the purpose of illustration and description only and are not intended as a definition of the limits of the invention. As used in the specification, the singular form of “a,” “an,” and “the” include plural referents unless the context clearly dictates otherwise.

**[0007]** Additional advantages and details of non-limiting embodiments are explained in greater detail below with reference to the exemplary embodiments that are illustrated in the accompanying schematic figures, in which:

**[0008]** FIG. 1 discloses a schematic diagram of an overlying process flow for connecting BNPL providers and ensuring repayment, in accordance with some embodiments of the present disclosure.

**[0009]** FIG. 2 discloses a schematic diagram of an overlying process flow for connecting BNPL providers and ensuring repayment, in accordance with another embodiment of the present disclosure.

**[0010]** FIG. 3 discloses a schematic of the overall message flow for connecting BNPL providers and ensuring repayment, in accordance with an embodiment of the present disclosure.

**[0011]** FIG. 4 is a block diagram of an exemplary computer system for implementing embodiments consistent with the present disclosure.

## **DETAILED DESCRIPTION**

**[0012]** In the present document, the word "exemplary" is used herein to mean "serving as an example, instance, or illustration." Any embodiment or implementation of the present subject matter described herein as "exemplary" is not necessarily to be construed as preferred or advantageous over other embodiments.

**[0013]** While the disclosure is susceptible to various modifications and alternative forms, specific embodiment thereof has been shown by way of example in the drawings and will be described in detail below. It should be understood, however that it is not intended to limit the disclosure to the particular forms disclosed, but on the contrary, the disclosure is to cover all modifications, equivalents, and alternative falling within the spirit and the scope of the disclosure.

**[0014]** The terms "comprises", "comprising", or any other variations thereof, are intended to cover a non-exclusive inclusion, such that a setup, device or method that comprises a list of components or steps does not include only those components or steps but may include other components or steps not expressly listed or inherent to such setup or device or method. In other words, one or more elements in a device or system or apparatus preceded by "comprises... a" does not, without more constraints, preclude the existence of other elements or additional elements in the device or system or apparatus.

**[0015]** The terms "an embodiment", "embodiment", "embodiments", "the embodiment", "the embodiments", "one or more embodiments", "some embodiments", and "one embodiment" mean "one or more (but not all) embodiments of the invention(s)" unless expressly specified otherwise.

**[0016]** The terms "including", "comprising", "having" and variations thereof mean "including but not limited to", unless expressly specified otherwise.

**[0017]** As used herein, the terms "communication", "communicate", "post", "sent", "return" and "returned" may refer to the reception, receipt, transmission, transfer, provision, and/or the like of information (e.g., data, signals, messages, instructions, commands, and/or the like). For one unit (e.g., a device, a system, a component of a device or system, combinations thereof, and/or the like) to be in communication with another unit means that the one unit is able to directly or indirectly receive information from and/or transmit information to the other unit. This may refer to a direct

or indirect connection (e.g., a direct communication connection, an indirect communication connection, and/or the like) that is wired and/or wireless in nature. Additionally, two units may be in communication with each other even though the information transmitted may be modified, processed, relayed, and/or routed between the first and second unit. For example, a first unit may be in communication with a second unit even though the first unit passively receives information and does not actively transmit information to the second unit. As another example, a first unit may be in communication with a second unit if at least one intermediary unit (e.g., a third unit located between the first unit and the second unit) processes information received from the first unit and communicates the processed information to the second unit. In some non-limiting embodiments, a message may refer to a network packet (e.g., a data packet and/or the like) that includes data. It will be appreciated that numerous other arrangements are possible.

**[0018]** As used herein, the term “computer” or “computer system” may refer to one or more electronic devices that are configured to directly or indirectly communicate with or over one or more networks. A computer system may be a mobile or portable computing device, a desktop computer, a server, mobile phones (e.g., cellular phones), PDAs, tablet computers, net books, laptop computers, personal music players, hand-held specialized readers, wearable devices (e.g., watches), vehicles (e.g., cars) and/or the like. Furthermore, the term “computer” may refer to any computing device that includes the necessary components to receive, process, and output data, and normally includes a display, a processor, a memory, an input device, and a network interface. A “computer system” may include one or more computing devices or computers. An “application” or “Application Program Interface” (API) refers to computer code or other data stored on a computer-readable medium that may be executed by a processor to facilitate the interaction between software components, such as a client-side front-end and/or server-side back-end for receiving data from the client. An “interface” refers to a generated display, such as one or more graphical user interfaces (GUIs) with which a user may interact, either directly or indirectly (e.g., through a keyboard, mouse, touchscreen, etc.). Further, multiple computers, e.g., servers, directly or indirectly communicating in the network environment may constitute a “system” or a “computing system”.

**[0019]** As used herein, the term “processor” may refer to any suitable data computation device or devices. A processor may comprise one or more microprocessors working together to accomplish

a desired function. The processor may include CPU comprises at least one high-speed data processor adequate to execute program components for executing user and/or system-generated requests. The CPU may be a microprocessor such as AMD's Athlon, Duron and/or Opteron; IBM and/or Motorola's PowerPC; IBM's and Sony's Cell processor; Intel's Celeron, Itanium, Pentium, Xeon, and/or XScale; and/or the like processor(s).

**[0020]** As used herein, the term "memory" may be any suitable device or devices that can store electronic data. A suitable memory may comprise a non-transitory computer readable medium that stores instructions that can be executed by a processor to implement a desired method. Examples of memories may comprise one or more memory chips, disk drives, etc. Such memories may operate using any suitable electrical, optical, and/or magnetic mode of operation.

**[0021]** It will be apparent that systems and/or methods, described herein, can be implemented in different forms of hardware, software, or a combination of hardware and software. The actual specialized control hardware or software code used to implement these systems and/or methods is not limiting of the implementations. Thus, the operation and behavior of the systems and/or methods are described herein without reference to specific software code, it being understood that software and hardware can be designed to implement the systems and/or methods based on the description herein.

**[0022]** Prior to discussing embodiments of the disclosure, some terms can be described in further detail.

**[0023]** As used herein, the term "Point of Sale/ PoS" may refer to any suitable e-commerce website, e-commerce application, e-commerce store.

**[0024]** As used herein, the term "Merchant" may refer to any person or company with a physical store, shop or outlet.

**[0025]** As used herein, the term "cardholder or CH" may include an individual or customer user purchasing a product by using a BNPL service. The Cardholder is associated with a unique ID otherwise called UID.

**[0026]** As used herein, the term "BNPL provider" may refer to any BNPL provider in the current market rendering their services to e-commerce websites or platforms.

**[0027]** FIG. 1 discloses a schematic diagram of an overlying process flow, in accordance with some embodiments of the present disclosure.

**[0028]** At step 1 and 2, a Cardholder (CH) with a unique ID requests for financing for e.g. \$100 from BNPL provider at an e-commerce website / Merchant (physical location).

**[0029]** At step 3 and 4, the BNPL provider, through the PoS or Merchant requests for UID and consent of the CH to access his/her credit line data to assess his/her borrowing/repayment behavior.

**[0030]** At step 5, 6 and 7, the CH provides the UID and grants consent and subsequently the BNPL provider requests BNPL advisor to provide score based on borrowing and repayment behavior from different BNPL providers.

**[0031]** At step 8, 9,10 and 11, the BNPL advisor, which has a consolidated database of consumers borrowing and repayment behavior from different BNPL providers, identifies the CH and a score is generated indicating repayment behavior and the score is provided to the BNPL provider.

**[0032]** Based on the score, at step 12, the BNPL provider can grant, partially grant or deny the requested financing.

**[0033]** At step 13 and 14, the repayment details are passed back from the BNPL provider to the BNPL advisor. This data on repayment is communicated to the BNPL advisor as the payments are being made to store in its database for future use.

**[0034]** FIG. 2 discloses a schematic diagram of an overlying process flow 200, in accordance with another embodiment of the present disclosure.

**[0035]** At step 201, Cardholder (CH) requests for financing e.g. \$50 from BNPL provider 1 at PoS (e-commerce) / Merchant (physical location).

**[0036]** At step 202, the BNPL provider 1 requests BNPL advisor to provide 2 parameters: - Cardholder Transaction (CTS) Score and Credit limit (from different BNPL providers that is present as part of the CTS repository BNPL advisor database).



**[0037]** At step 203 and 204, the Cardholder's eligibility to borrow is communicated as, for example, \$100, to the BNPL provider 1 by the BNPL advisor and the BNPL provider can decide to provide upfront financing to the merchant of, for example, \$50 at step 205 and the entry in the BNPL advisor is updated to, for example, \$50.

**[0038]** At a later instance, at step 206, the cardholder may request for, for example, \$80 at another PoS /merchant through BNPL provider 2.

**[0039]** At step 207, BNPL provider 2 requests the BNPL advisor to provide 2 parameters: - Cardholder Transaction (CTS) Score and Credit limit (from different BNPL providers that is present as part of the CTS repository BNPL advisor database).

**[0040]** At step 208 and 209, the Cardholder's eligibility to borrow is communicated as, for example, \$50, to the BNPL provider 2 by the BNPL advisor.

**[0041]** As a result, at step 210, the BNPL provider 2 may only provide, for example, \$50 as upfront financing.

**[0042]** FIG. 3 discloses a schematic of the overall message flow 300, in accordance with an embodiment of the present disclosure.

**[0043]** BNPL advisor Initial setup: Build Customer Database

The BNPL advisor needs to maintain a transaction repository from BNPL providers to create a customer wise BNPL credit score. At step 301a, the BNPL advisor signs up with all BNPL providers in the market. At step 301b, BNPL providers upload all their customer/card holder registration details and other details such as BNPL Requests open/approved, installment transaction details etc. to the BNPL advisor. Based on this data, at step 301c, the BNPL advisor, generates a unique ID for every customer/card holder registered and links each transaction data to this Unique customer ID based on payment credentials. This Unique ID is linked to customer/cardholder alias in the alias directory

**[0044]** New Customer Registration

At step 302a, the Cardholder registers for a BNPL scheme. At step 302b, BNPL providers requests the customer for the cardholders details such as – Name, Mobile number, email , ID, card payment details etc and at step 302c, the cardholder provides the requested details. At step 302d, the customer is verified using a One Time Password (OTP) verification and BNPL provider registers the Customer with the BNPL advisor and a unique ID/ customer ID and shares it with BNPL vendor. BNPL provider queries BNPL advisor on existing payment credential based on these above Alias. BNPL advisor responds to the BNPL provider with the payment’s credentials linked to the customer’s Alias. BNPL vendor gets consumer confirmation on the payment credential.

#### **[0045]** BNPL Approval Process

Based on the BNPL Amount request of the cardholder, at step 302e, the BNPL provider requests the BNPL advisor for the BNPL credit score and at step 302f, the BNPL advisor responds with the BNPL credit score. Three scenarios are listed based on the BNPL credit score

#### **[0046]** Option 1: Good Credit score

The BNPL provider validates the score against internal rules for decision making and BNPL provider gives confirmation to the customer on the full amount and payment scheme. At step 302h, BNPL provider sends this BNPL transaction details to the BNPL advisor to log and flag new BNPL request and maintains the status to update the score

#### **[0047]** Option 2: Risky Credit score

The BNPL provider validates the score against internal rules for decision making proposes the customer with partial approval of the amount requested. The BNPL provider then gets confirmation from customer on the revised reduced amount. At step 302h, BNPL provider sends the BNPL transaction details to BNPL advisor to log and flag new BNPL request and maintains the status to update the score

#### **[0048]** Option 3: Risky / lowest Credit score

The BNPL provider validates the score against internal rules for decision making and proposes to decline the customer’s BNPL amount requested. At step 302h, BNPL provider sends these declined details to VISA for logging and reference.

#### **[0049]** Transaction Feed to Visa

At step 303c, BNPL provider sends advice to BNPL advisor on every installment paid or differed linked to a particular BNPL request and the BNPL advisor updates the transaction score based on the data received

**[0050]** FIG. 4 is a block diagram of an exemplary BNPL advisor system for implementing embodiments consistent with the present disclosure.

**[0051]** In some embodiments, FIG. 4 illustrates a block diagram of an exemplary BNPL advisor system 400 for implementing embodiments consistent with the present disclosure. The processor 402 may include at least one data processor for executing program components for executing user or system-generated business processes. A user/customer may include a person, a person using a device such as those included in this disclosure, or such a device itself. The processor 402 may include specialized processing units such as integrated system (bus) controllers, memory management control units, floating point units, graphics processing units, digital signal processing units, etc.

**[0052]** The processor 402 may be disposed in communication with input devices 411 and output devices 412 via I/O interface 401. The input devices 411 may be devices such as, without limitation to, keyboard, mouse, touch screen, sensors, microphones, scanners, camera, finger print scanner etc. The output devices 412 may be devices such as, without limitation to, speaker, electronic screen, etc. The I/O interface 401 may employ communication protocols/methods such as, without limitation, audio, analog, digital, stereo, IEEE-1393, serial bus, Universal Serial Bus (USB), infrared, PS/2, BNC, coaxial, component, composite, Digital Visual Interface (DVI), high-definition multimedia interface (HDMI), Radio Frequency (RF) antennas, S-Video, Video Graphics Array (VGA), IEEE 802.n /b/g/n/x, Bluetooth, cellular (e.g., Code-Division Multiple Access (CDMA), High-Speed Packet Access (HSPA+), Global System For Mobile Communications (GSM), Long-Term Evolution (LTE), WiMax, or the like), etc.

**[0053]** Using the I/O interface 401, the BNPL advisor system 400 may communicate with the input devices 411 and the output devices 412.

**[0054]** In some embodiments, the processor 402 may be disposed in communication with a communication network 409 via a network interface 403. The network interface 403 may communicate with the communication network 409. The network interface 403 may employ connection protocols including, without limitation, direct connect, Ethernet (e.g., twisted pair 10/100/1000 Base T), Transmission Control Protocol/Internet Protocol (TCP/IP), token ring, IEEE 802.11a/b/g/n/x, etc. The communication network 409 can be implemented as one of the different types of networks, such as intranet or Local Area Network (LAN), Closed Area Network (CAN) and such. The communication network 409 may either be a dedicated network or a shared network, which represents an association of the different types of networks that use a variety of protocols, for example, Hypertext Transfer Protocol (HTTP), CAN Protocol, Transmission Control Protocol/Internet Protocol (TCP/IP), Wireless Application Protocol (WAP), etc., to communicate with each other. Further, the communication network 409 may include a variety of network devices, including routers, bridges, servers, computing devices, storage devices, etc.

**[0055]** In some embodiments, the communication network 409 may be in communication with one or more BNPL providers BNPL Provider 413<sub>1</sub>, 413<sub>2</sub>, ... 413<sub>n</sub>. As described herein BNPL provider may be an API implemented on a computer system.

**[0056]** In some embodiments, the processor 402 may be disposed in communication with a memory 405 (e.g., RAM, ROM, etc. not shown in FIG.3) via a storage interface 403. The storage interface 403 may connect to memory 405 including, without limitation, memory drives, removable disc drives, etc., employing connection protocols such as Serial Advanced Technology Attachment (SATA), Integrated Drive Electronics (IDE), IEEE-1393, Universal Serial Bus (USB), fibre channel, Small Computer Systems Interface (SCSI), etc. The memory drives may further include a drum, magnetic disc drive, magneto-optical drive, optical drive, Redundant Array of Independent Discs (RAID), solid-state memory devices, solid-state drives, etc.

**[0057]** The memory 405 may store a collection of program or database components, including, without limitation, a user interface 406, an operating system 407, a web browser 408 etc. In some embodiments, the computer system 400 may store user/application data, such as the data, variables,

records, etc. as described in this disclosure. Such databases may be implemented as fault-tolerant, relational, scalable, secure databases such as Oracle or Sybase.

**[0058]** The operating system 407 may facilitate resource management and operation of the BNPL advisor system 200. Examples of operating systems include, without limitation, APPLE<sup>®</sup> MACINTOSH<sup>®</sup> OS X<sup>®</sup>, UNIX<sup>®</sup>, UNIX-like system distributions (E.G., BERKELEY SOFTWARE DISTRIBUTION<sup>®</sup> (BSD), FREEBSD<sup>®</sup>, NETBSD<sup>®</sup>, OPENBSD, etc.), LINUX<sup>®</sup> DISTRIBUTIONS (E.G., RED HAT<sup>®</sup>, UBUNTU<sup>®</sup>, KUBUNTU<sup>®</sup>, etc.), IBM<sup>®</sup> OS/2<sup>®</sup>, MICROSOFT<sup>®</sup> WINDOWS<sup>®</sup> (XP<sup>®</sup>, VISTA<sup>®</sup>/7/8, 10 etc.), APPLE<sup>®</sup> IOS<sup>®</sup>, GOOGLE<sup>™</sup> ANDROID<sup>™</sup>, BLACKBERRY<sup>®</sup> OS, or the like. The User interface 206 may facilitate display, execution, interaction, manipulation, or operation of program components through textual or graphical facilities. For example, user interfaces may provide computer interaction interface elements on a display system operatively connected to the BNPL advisor system 400, such as cursors, icons, checkboxes, menus, scrollers, windows, widgets, etc. Graphical User Interfaces (GUIs) may be employed, including, without limitation, Apple<sup>®</sup> Macintosh<sup>®</sup> operating systems' Aqua<sup>®</sup>, IBM<sup>®</sup> OS/2<sup>®</sup>, Microsoft<sup>®</sup> Windows<sup>®</sup> (e.g., Aero, Metro, etc.), web interface libraries (e.g., ActiveX<sup>®</sup>, Java<sup>®</sup>, Javascript<sup>®</sup>, AJAX, HTML, Adobe<sup>®</sup> Flash<sup>®</sup>, etc.), or the like.

**[0059]** In some embodiments, the BNPL advisor system 400 may implement the web browser 408 stored program components. The web browser 408 may be a hypertext viewing application, such as MICROSOFT<sup>®</sup> INTERNET EXPLORER<sup>®</sup>, GOOGLE<sup>™</sup> CHROME<sup>™</sup>, MOZILLA<sup>®</sup> FIREFOX<sup>®</sup>, APPLE<sup>®</sup> SAFARI<sup>®</sup>, etc. Secure web browsing may be provided using Secure Hypertext Transport Protocol (HTTPS), Secure Sockets Layer (SSL), Transport Layer Security (TLS), etc. Web browsers 408 may utilize facilities such as AJAX, DHTML, ADOBE<sup>®</sup> FLASH<sup>®</sup>, JAVASCRIPT<sup>®</sup>, JAVA<sup>®</sup>, Application Programming Interfaces (APIs), etc. In some embodiments, the BNPL advisor system 400 may implement a mail server stored program component. The mail server may be an Internet mail server such as Microsoft Exchange, or the like. The mail server may utilize facilities such as Active Server Pages (ASP), ACTIVEX<sup>®</sup>, ANSI<sup>®</sup> C++/C#, MICROSOFT<sup>®</sup>, .NET, CGI SCRIPTS, JAVA<sup>®</sup>, JAVASCRIPT<sup>®</sup>, PERL<sup>®</sup>, PHP, PYTHON<sup>®</sup>, WEBOBJECTS<sup>®</sup>, etc. The mail server may utilize communication protocols such as Internet Message Access Protocol (IMAP), Messaging Application Programming Interface (MAPI),

MICROSOFT<sup>®</sup> exchange, Post Office Protocol (POP), Simple Mail Transfer Protocol (SMTP), or the like. In some embodiments, the BNPL advisor system 400 may implement a mail client stored program component. The mail client may be a mail viewing application, such as APPLE<sup>®</sup> MAIL, MICROSOFT<sup>®</sup> ENTOURAGE<sup>®</sup>, MICROSOFT<sup>®</sup> OUTLOOK<sup>®</sup>, MOZILLA<sup>®</sup> THUNDERBIRD<sup>®</sup>, etc.

**[0060]** Furthermore, one or more computer-readable storage media may be utilized in implementing embodiments consistent with the present disclosure. A computer-readable storage medium refers to any type of physical memory on which information or data readable by a processor may be stored. Thus, a computer-readable storage medium may store instructions for execution by one or more processors, including instructions for causing the processor(s) to perform steps or stages consistent with the embodiments described herein. The term “computer-readable medium” should be understood to include tangible items and exclude carrier waves and transient signals, i.e., non-transitory. Examples include Random Access Memory (RAM), Read-Only Memory (ROM), volatile memory, non-volatile memory, hard drives, Compact Disc (CD) ROMs, Digital Video Disc (DVDs), flash drives, disks, and any other known physical storage media.

**[0061]** Any of the software components or functions described in this application may be implemented as software code to be executed by a processor using any suitable computer language such as, for example, Java, C, C++, C#, Objective-C, Swift, or scripting language such as Perl or Python using, for example, conventional or object-oriented techniques. The software code may be stored as a series of instructions or commands on a computer readable medium for storage and/or transmission, suitable media include random access memory (RAM), a read only memory (ROM), a magnetic medium such as a hard-drive or a floppy disk, or an optical medium such as a compact disk (CD) or DVD (digital versatile disk), flash memory, and the like. The computer readable medium may be any combination of such storage or transmission devices.

**[0062]** Such programs may also be encoded and transmitted using carrier signals adapted for transmission via wired, optical, and/or wireless networks conforming to a variety of protocols, including the Internet. As such, a computer readable medium according to an embodiment of the present invention may be created using a data signal encoded with such programs. Computer readable media encoded with the program code may be packaged with a compatible device or

provided separately from other devices (e.g., via Internet download). Any such computer readable medium may reside on or within a single computer product (e.g. a hard drive, a CD, or an entire computer system), and may be present on or within different computer products within a system or network. A computer system may include a monitor, printer, or other suitable display for providing any of the results mentioned herein to a user.

**[0063]** Finally, the language used in the specification has been principally selected for readability and instructional purposes, and it may not have been selected to delineate or circumscribe the inventive subject matter. Accordingly, the disclosure of the embodiments of the disclosure is intended to be illustrative, but not limiting, of the scope of the disclosure.

**[0064]** With respect to the use of substantially any plural and/or singular terms herein, those having skill in the art can translate from the plural to the singular and/or from the singular to the plural as is appropriate to the context and/or application. The various singular/plural permutations may be expressly set forth herein for sake of clarity.

**[0065]** Any of the software components or functions described in this application, may be implemented as software code to be executed by a processor using any suitable computer language such as, for example, Java, C++ or Perl using, for example, conventional or object-oriented techniques. The software code may be stored as a series of instructions, or commands on a computer readable medium, such as a random access memory (RAM), a read only memory (ROM), a magnetic medium such as a hard-drive or a floppy disk, or an optical medium such as a CD-ROM. Any such computer readable medium may reside on or within a single computational apparatus, and may be present on or within different computational apparatuses within a system or network.

**[0066]** The above description is illustrative and is not restrictive. Many variations of the invention may become apparent to those skilled in the art upon review of the disclosure. The scope of the invention can, therefore, be determined not with reference to just the above description.

**[0067]** One or more features from any embodiment may be combined with one or more features of any other embodiment without departing from the scope of the invention.

**[0068]** A recitation of "a", "an" or "the" is intended to mean "one or more" unless specifically indicated to the contrary.

**[0069]** All patents, patent applications, publications, and descriptions mentioned above are herein incorporated by reference in their entirety for all purposes. None is admitted to be prior art.

**[0070]** Although the invention has been described in detail for the purpose of illustration based on what is currently considered to be the most practical and preferred embodiments, it is to be understood that such detail is solely for that purpose and that the invention is not limited to the disclosed embodiments. For example, it is to be understood that the present invention contemplates that, to the extent possible, one or more features of any embodiment can be combined with one or more features of any other embodiment.



## **ABSTRACT**

### **CONNECTING BNPL PROVIDERS AND ENSURING REPAYMENT**

**[0071]** The disclosure includes a system that is managed by a BNPL advisor which allows for BNPL providers to make an intelligent decision when approving loans requested by cardholder. The BNPL advisor consolidates borrowing and repayment behavior onto a database of every card holder from different BNPL providers. This proprietary database would update the borrowed amount & returned amount through installments through an asynchronous connection to each BNPL provider – updating the entry whenever a repayment or borrowing is made. Using this data along with BNPL advisors own transaction data, a score that indicates the probability of complete repayment is generated and passed to the BNPL provider. This system allows for various BNPL providers to communicate and update credit limit of a cardholder through the BNPL advisor. It also works in cross border lending and ensures that BNPL providers are protected against delinquency.

Fig. 1

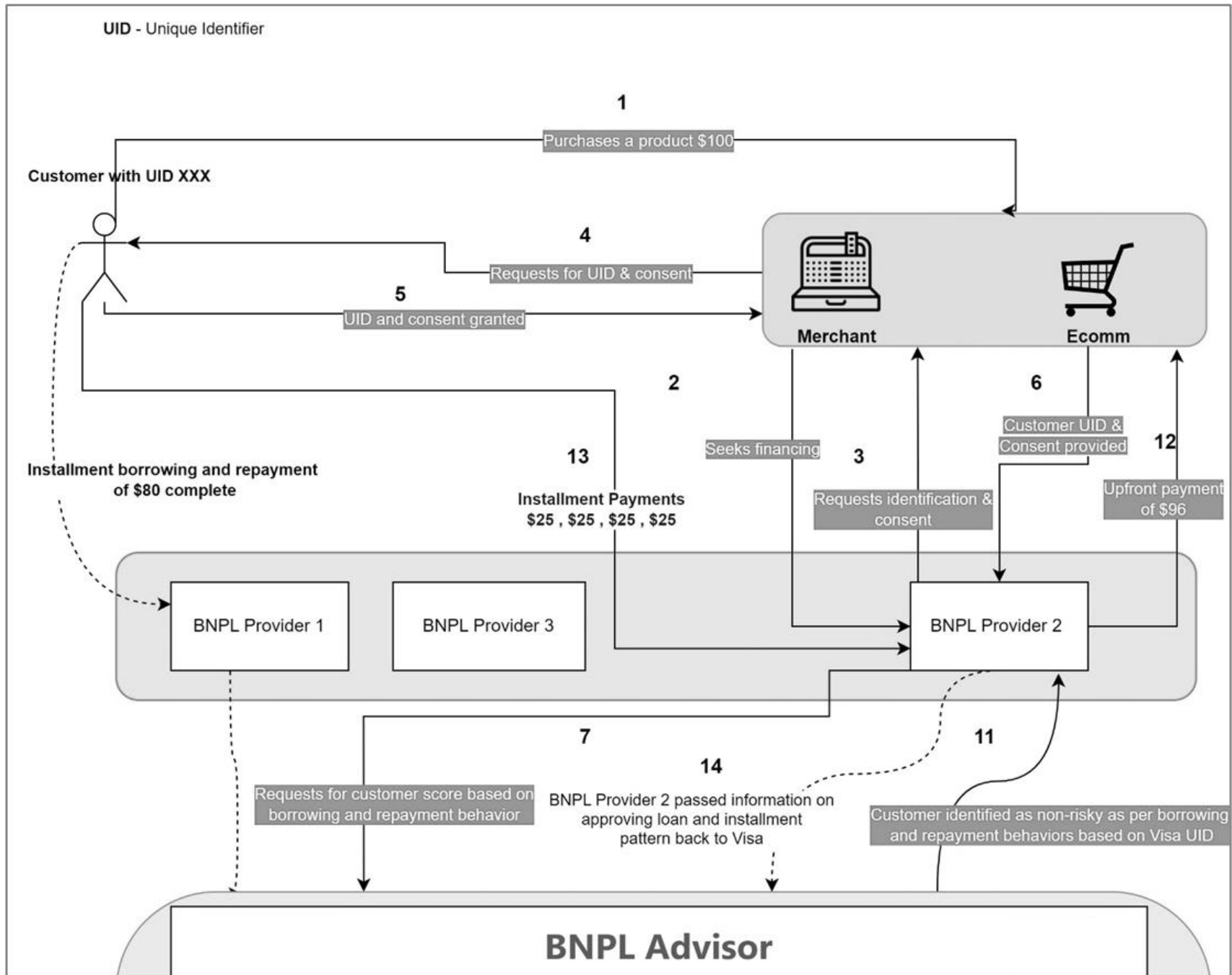


Fig. 1

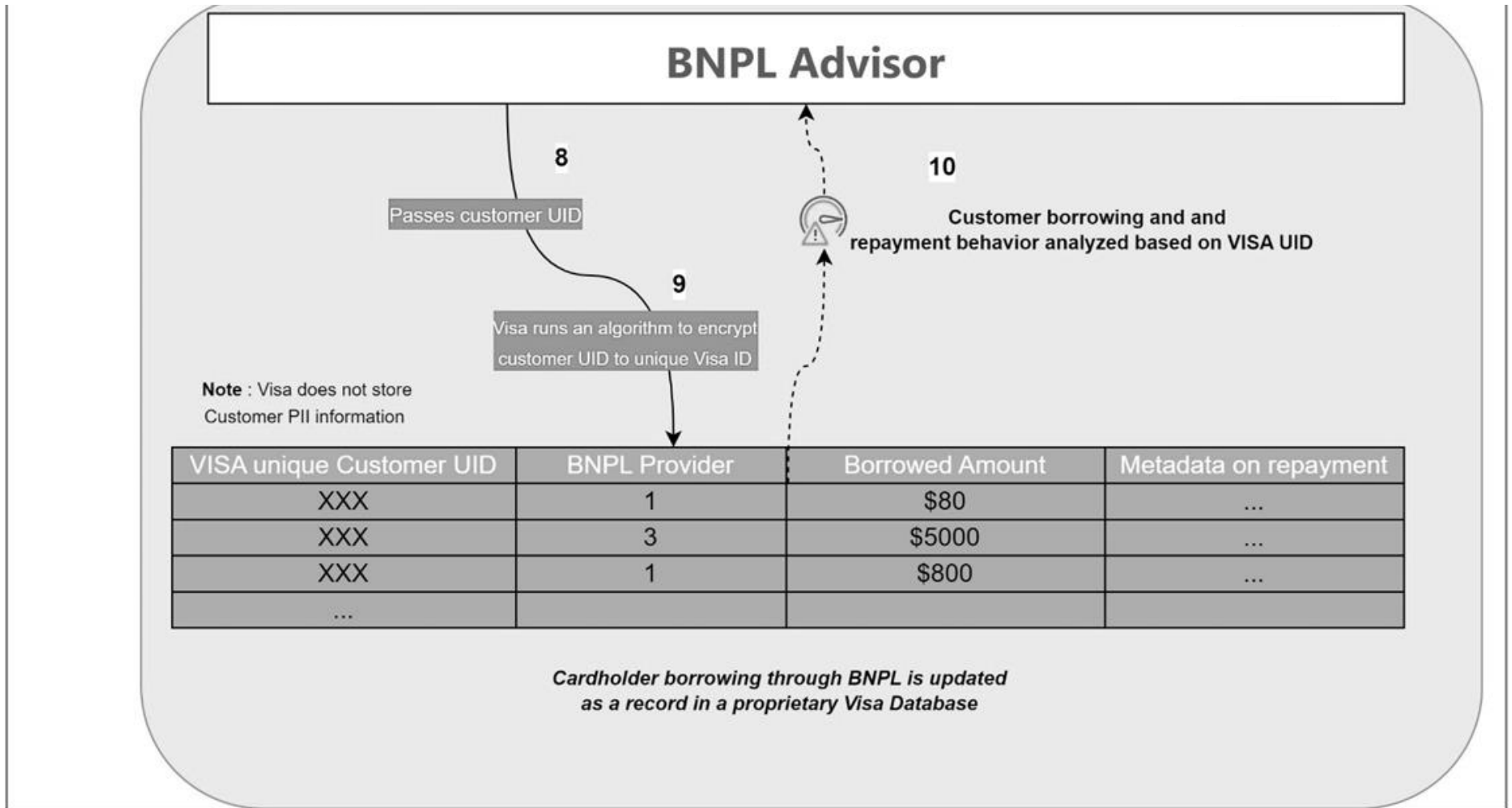


Fig. 1

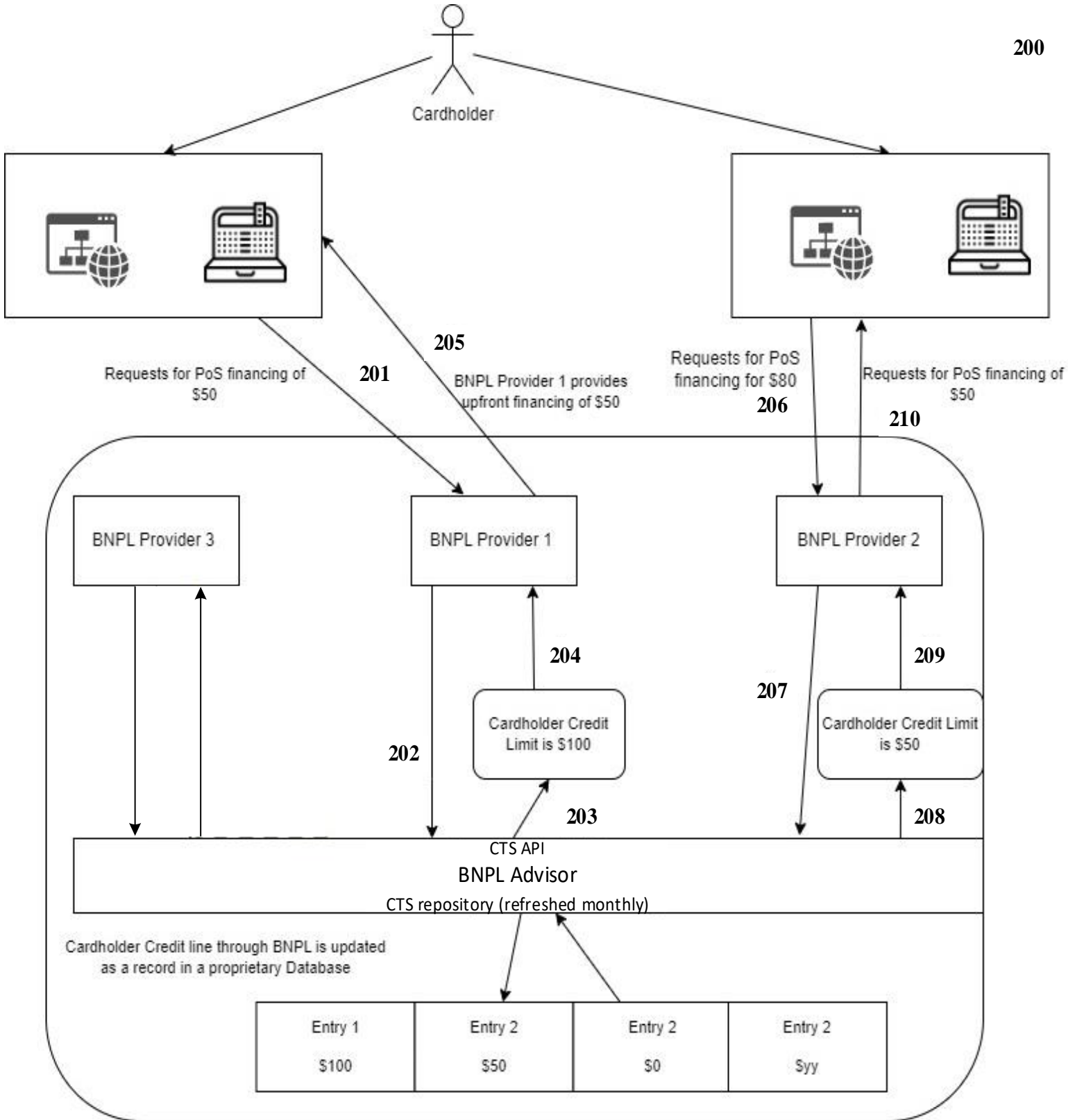


Fig. 2

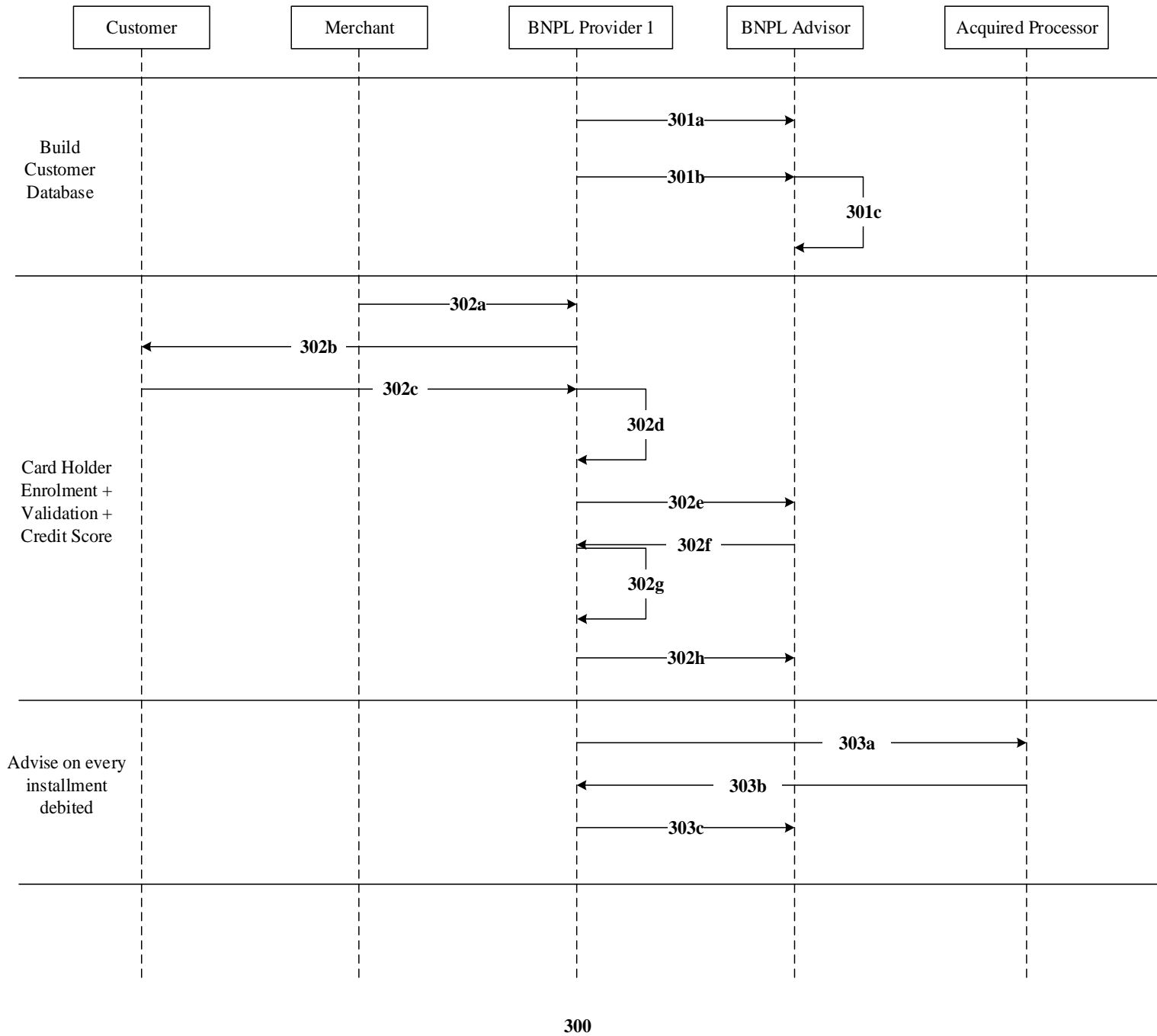


Fig. 3

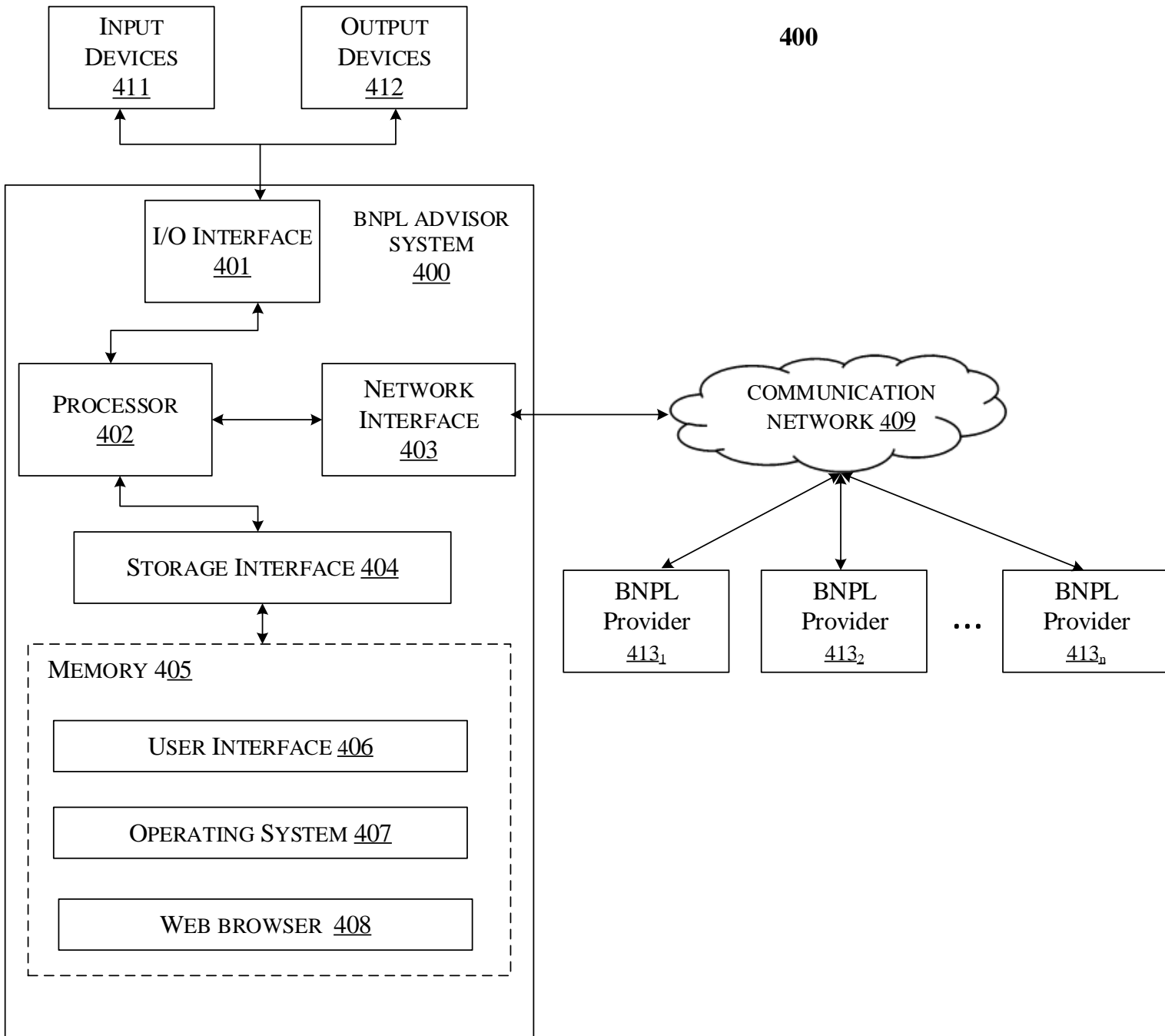


Fig. 4