Title: A METHOD OF OPENING AND OPERATING A FINANCIAL TRANSACTION ACCOUNT AND A SYSTEM THEREFOR

Abstract: ABSTRACT This invention relates to a method of opening and operating a financial transaction account and a system therefor. The method includes receiving a request via a communications network to open a financial transaction account with a financial institution, the request including a device identification being an identification of a user's communications device from where the request was transmitted onto the communications network, and a user identification being an identification of the user for whom the financial transaction account will be opened. Validating the device identification and the user identification. Opening a financial transaction account and linking the device identification and the user identification to the financial transaction account for the user so that the user can conduct financial transactions on the account using the device.
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A METHOD OF OPENING AND OPERATING A FINANCIAL TRANSACTION ACCOUNT AND A SYSTEM THEREFOR

BACKGROUND OF THE INVENTION

THIS invention relates to a method of opening and operating a financial transaction account and a system therefor.

Opening a financial transaction account is usually a tedious process for a user as it requires the submission of a number of documents and information to the financial institution opening the account.

From the financial institution’s point of view, the above requirements are necessary to ensure security so that accounts are not opened which are fraudulently transacted on.

This has hampered the use of technology to allow a user to open their financial transaction account remotely without ever visiting their financial institution.

The present invention seeks to address this.
SUMMARY OF THE INVENTION

According to an example embodiment, there is provided a method of opening and operating a financial transaction account, the method including:

receiving a request via a communications network to open a financial transaction account with a financial institution, the request including a device identification being an identification of a user's communications device from where the request was transmitted onto the communications network, and a user identification being an identification of the user for whom the financial transaction account will be opened;

validating the device identification and the user identification;

opening a financial transaction account; and

linking the device identification and the user identification to the financial transaction account for the user so that the user can conduct financial transactions on the account using the device.

The method may further include receiving a financial transaction card identification and linking the financial transaction card identification to the device identification, the user identification and the financial transaction account so that the user can conduct financial transactions on the account using the financial transaction card.

The user may be prompted to enter a financial transaction card identification before linking the card identification to the device and user identification.
The communications network is typically a cellular communications network and the communications device is a cellular communications device.

In response to use of the financial transaction card, the user may be prompted via the communications network to validate the use by transmitting a validation message using the communication device linked to the financial transaction account.

The validating of the device identification and the user identification may be done by accessing one or more databases of valid device identifications and valid user identifications.

The validating of the device identification and the user identification may include checking that there are no other financial transaction accounts with the same device identification or user identification.

The user may be prompted via the communications network to enter a source of initial funds for the financial transaction account.

The method may further include prompting the user to enter a personal identification number (PIN) which can be used at a later stage to validate transactions.

According to another example embodiment, there is provided a method of opening and operating a financial transaction account, the method including:

receiving a request via a communications network to open a financial transaction account with a financial institution, the request including a device identification being an identification of a communications device from where the request was transmitted onto the communications network, and a user identification being an identification of the user for whom the financial transaction account will be opened;
validating the device identification and the user identification; and

transmitting the device identification and the user identification to
the financial institution so that the financial institution can open a
financial transaction account for the user so that the user can
conduct financial transactions on the account using the device.

The method may further include receiving a financial transaction card
identification and linking the financial transaction card identification to the
device identification, the user identification and the financial transaction
account so that the user can conduct financial transactions on the account
using the financial transaction card.

The user may be prompted to enter a financial transaction card
identification before linking the card identification to the device and user
identification.

The communications network is typically a cellular communications network
and the communications device is a cellular communications device.

In response to use of the financial transaction card, the user may be
prompted via the communications network to validate the use by
transmitting a validation message using the communication device linked to
the financial transaction account.

The validating of the device identification and the user identification may be
done by accessing one or more databases of valid device identifications
and valid user identifications.

The validating of the device identification and the user identification may
include checking that there are no other financial transaction accounts with
the same device identification or user identification.
The user may also be prompted via the communications network to enter a source of initial funds for the financial transaction account.

The method may further include prompting the user to enter a personal identification number (PIN) which can be used at a later stage to validate transactions.

According to another example embodiment, there is provided a system for opening and operating a financial transaction account, the system including:

- at least one processor for:
  - receiving a request via a communications network to open a financial transaction account with a financial institution, the request including a device identification being an identification of a user's communications device from where the request was transmitted onto the communications network, and a user identification being an identification of the user for whom the financial transaction account will be opened;
  - validating the device identification and the user identification;
  - opening a financial transaction account; and
  - linking the device identification and the user identification to the financial transaction account for the user so that the user can conduct financial transactions on the account using the device; and
  - a memory for storing data representing the device identification, the user identification and the financial transaction account.
The processor may further receive a financial transaction card identification and link the financial transaction card identification to the device identification, the user identification and the financial transaction account so that the user can conduct financial transactions on the account using the financial transaction card.

The communications network is typically a cellular communications network and the communications device is a cellular communications device.

In response to use of the financial transaction card, the at least one processor may prompt the user via the communications network to validate the transaction by transmitting a validation message using the communication device linked to the financial transaction account.

The validating of the device identification and the user identification may be done by the at least one processor accessing one or more databases of valid device identifications and valid user identifications.

The validating of the device identification and the user identification may include the at least one processor checking that there are no other financial transaction accounts with the same device identification or user identification.

The at least one processor may prompt the user via the communications network to enter a source of initial funds for the financial transaction account.

The at least one processor may further prompt the user to enter a personal identification number (PIN) which can be used at a later stage to validate transactions.

According to another example embodiment, there is provided a system for opening and operating a financial transaction account, the system including:
at least one processor for:

receiving a request via a communications network to open a financial transaction account with a financial institution, the request including a device identification being an identification of a communications device from where the request was transmitted onto the communications network, and a user identification being an identification of the user for whom the financial transaction account will be opened;

validating the device identification and the user identification; and

transmitting the device identification and the user identification to the financial institution so that the financial institution can open a financial transaction account for the user so that the user can conduct financial transactions on the account using the device.

The processor may further receive a financial transaction card identification and link the financial transaction card identification to the device identification, the user identification and the financial transaction account so that the user can conduct financial transactions on the account using the financial transaction card.

The communications network is typically a cellular communications network and the communications device is a cellular communications device.

In response to use of the financial transaction card, the at least one processor may prompt the user via the communications network to validate the transaction by transmitting a validation message using the communication device linked to the financial transaction account.
The validating of the device identification and the user identification may be
done by the at least one processor accessing one or more databases of
valid device identifications and valid user identifications.

The validating of device identification and the user identification may
include the at least one processor checking that there are no other financial
transaction accounts with the same device identification or user
identification.

The at least one processor may prompt the user via the communications
network to enter a source of initial funds for the financial transaction
account.

The at least one processor may further prompt the user to enter a personal
identification number (PIN) which can be used at a later stage to validate
transactions.

**BRIEF DESCRIPTION OF THE DRAWINGS**

**Figure 1** shows an example of a system within which the present
invention could be implemented;

**Figure 2** is a flowchart illustrating the steps of the present invention.

**DESCRIPTION OF PREFERRED EMBODIMENTS**

The present invention relates to a process of opening a financial
transaction account with a financial institution a system therefor.

The financial transaction account could, for example, be a credit or debit
card account or an account of the type into which a user places funds and
then draws funds out of the account either by way of an automatic teller
machine or by drawing cheques on the account.
The financial institution could, for example, be a bank.

In any event, Figure 1 illustrates an example of a system by means of which the present invention could be implemented.

A user accesses a communication network 10 using a communications device 12.

In the illustrated embodiment, the communications network is a cellular communications network and the communications device is a cellular communications device such as a mobile telephone.

Communications to and from the communications device 12, for purposes of the present invention, are routed to a server 14 with software operating thereon.

The server 14 may be operated by a financial institution or may be operated by a third party.

In either case, the server is likely to be connected via another communications network 16 to a second server 18 of the financial institution.

Referring to the flowcharts of Figure 2, a user wishing to open and operate a financial transaction account is able to use their cellular telephone 12 to open an account by accessing the server 14 via the communications network 10.

The user can either dial a predetermined number to access the server or can transmit information to the server using a communication protocol. Examples of such communication protocols are the Short Message Service (SMS) protocol, the Multimedia Message Service (MMS) protocol or the Unstructured Supplementary Services Data (USSD) protocol.
The user will obviously need to know what number or USSD string to dial and these can be advertised to the user in various ways.

For example, the numbers could be displayed in a branch of a financial institution itself or could be advertised broadly through various media such as via television, for example.

Alternatively, the number could be displayed in an activation pack such as a Subscriber Identity Module (SIM) card pack which is given to new subscribers to a mobile telephone network.

In any event, the user's call or message is transmitted via the communications network 10 and a request is received at server 14.

The request will include *inter alia* an identification of the communications device, typically being the Mobile Subscriber ISDN Number (MSISDN) of the device. Alternative identifications may include the Integrated Circuit Card ID (ICCID) or the International Mobile Equipment Identification (IMEI), for example.

In addition, the user is requested to enter a user identification such as a user identification number or passport number, for example.

The user could be prompted to enter this information in a number of ways such as by an interactive voice response (IVR) which talks the user through inputting their information. The IVR could be incorporated on server 14 or may be implemented in an associated server not illustrated. When using the IVR, the user could be prompted to enter relevant numbers using the keypad or could be prompted to speak the relevant information into the handset which would then be recognised either afterwards by a human operator or by voice recognition software.
Alternatively, the user could be prompted to enter the information using a protocol such as the SMS or MMS protocol where the user receives an SMS or MMS prompting them to enter their user identification.

Once the information is received both the device identification and the user identification are validated, typically by accessing databases of information. The device identification could, for example, be checked by accessing a database of registered devices on a cellular network whilst the user identification could be checked by accessing a third party database such as a government department database containing details of all identity documents and passports issued.

Included in the validation will be the checking that there are no other financial transaction accounts with the same device identification or user identification which could indicate an attempted fraudulent transaction.

The user is also prompted using similar means as described above to enter a financial transaction card identification. This could take place at the time of opening the account or later in the process.

Financial transaction cards are typically magnetic stripe cards or smart cards, for example, which are used to draw cash from an automatic teller type machines or are used as debit or credit cards.

Normally the financial institution will issue the user with the card which has been enabled for the user.

In the present case, a plurality of cards is issued using various mechanisms but these cards are dormant or unusable until activated.

Different ways that cards could be distributed are together with new cell phones or subscriber identity module (SIM) card or even broadly in the media whereby a card is enclosed with a magazine publication, for example.
In any event, the user will have obtained one of the financial transaction cards and will enter the card identification.

The card identification will be validated with the identification of the card being checked against a database of issued cards, for example.

If the card is valid, then the financial transaction card identification, the device identification and the user identification are transmitted to the financial institution.

Obviously, where the financial institution is operating server 14, the data will not be transmitted to the financial institution and will either be stored in a database and used directly within the financial institution or transmitted to a different server within a distributed network of the financial institution.

In either case, a financial transaction account is opened and the financial transaction card identification, the device identification and the user identification are linked to the financial transaction account so that the user can conduct financial transactions on the account using the financial transaction card and/or device.

The user may also be prompted to enter a personal identification number (PIN) which can be used at a later stage to validate transactions, as will be explained in detail below.

In addition to the PIN, the user may be prompted to enter a forgotten PIN authentication question and answer.

All of this information is stored in a memory means to be accessed when needed.

As the financial transaction card identification and the device identification are linked to the financial transaction account, in response to use of the
financial transaction card, the user is prompted via the communications network to validate the transaction by transmitting a validation message using the communication device.

The validation message could be the transmitting of their personal identification number (PIN) for example.

It will be appreciated that the methodology described above is implemented by the server including at least one processor to implement the various steps. Although the illustrated embodiment shows a single server, it should also be appreciated that there could be a plurality of processors spread across a plurality of servers in order to implement the methodologies.

Executing on the at least one processor is typically machine-readable medium on which is stored one or more sets of instructions (e.g., software) embodying any one or more of the methodologies or functions described herein. The software may also reside, completely or at least partially, within a main memory of the server and/or within a processor during execution thereof by the computer system.

While the machine-readable medium is typically a single medium, the term "machine-readable medium" should be taken to include a single medium or multiple media (e.g., a centralized or distributed database, and/or associated caches and servers) that store the one or more sets of instructions. The term "machine-readable medium" shall also be taken to include any medium that is capable of storing, encoding or carrying a set of instructions for execution by the machine and that cause the machine to perform any one or more of the methodologies. The term "machine-readable medium" shall accordingly be taken to include, but not be limited to, solid-state memories, optical and magnetic media, and carrier wave signals.
CLAIMS:

1. A method of opening and operating a financial transaction account, the method including:

   receiving a request via a communications network to open a financial transaction account with a financial institution, the request including a device identification being an identification of a user's communications device from where the request was transmitted onto the communications network, and a user identification being an identification of the user for whom the financial transaction account will be opened;

   validating the device identification and the user identification;

   opening a financial transaction account; and

   linking the device identification and the user identification to the financial transaction account for the user so that the user can conduct financial transactions on the account using the device.

2. A method according to claim 1 further including receiving a financial transaction card identification and linking the financial transaction card identification to the device identification, the user identification and the financial transaction account so that the user can conduct financial transactions on the account using the financial transaction card.

3. A method according to claim 2 further including prompting the user to enter a financial transaction card identification before linking the card identification to the device and user identification.
4. A method according to any preceding claim wherein the communications network is a cellular communications network and the communications device is a cellular communications device.

5. A method according to any one of claims 2 to 4 wherein in response to use of the financial transaction card, prompting the user via the communications network to validate the use by transmitting a validation message using the communications device linked to the financial transaction account.

6. A method according to any preceding claim wherein the validating of the device identification and the user identification is done by accessing one or more databases of valid device identifications and valid user identifications.

7. A method according to any preceding claim wherein the validating of the device identification and the user identification includes checking that there are no other financial transaction accounts with the same device identification or user identification.

8. A method according to any preceding claim further including prompting the user via the communications network to enter a source of initial funds for the financial transaction account.

9. A method according to any preceding claim wherein the method further includes prompting the user to enter a personal identification number (PIN) which can be used at a later stage to validate transactions.

10. A method of opening and operating a financial transaction account, the method including:
receiving a request via a communications network to open a financial transaction account with a financial institution, the request including a device identification being an identification of a communications device from where the request was transmitted onto the communications network, and a user identification being an identification of the user for whom the financial transaction account will be opened;

validating the device identification and the user identification; and

transmitting the device identification and the user identification to the financial institution so that the financial institution can open a financial transaction account for the user so that the user can conduct financial transactions on the account using the device.

11. A method according to claim 10 further including receiving a financial transaction card identification and linking the financial transaction card identification to the device identification, the user identification and the financial transaction account so that the user can conduct financial transactions on the account using the financial transaction card.

12. A method according to claim 11 further including prompting the user to enter a financial transaction card identification before linking the card identification to the device and user identification.

13. A method according to any one of claims 10 to 12 wherein the communications network is a cellular communications network and the communications device is a cellular communications device.
14. A method according to any one of claims 11 to 13 wherein in
response to use of the financial transaction card, prompting the user
via the communications network to validate the use by transmitting
a validation message using the communication device linked to the
financial transaction account.

15. A method according to any one of claims 10 to 14 wherein the
validating of the device identification and the user identification is
done by accessing one or more databases of valid device
identifications and valid user identifications.

16. A method according to any one of claims 10 to 15 wherein the
validating of the device identification and the user identification
includes checking that there are no other financial transaction
accounts with the same device identification or user identification.

17. A method according to any one of claims 10 to 16 further including
prompting the user via the communications network to enter a
source of initial funds for the financial transaction account.

18. A method according to any one of claims 10 to 17 wherein the
method further includes prompting the user to enter a personal
identification number (PIN) which can be used at a later stage to
validate transactions.

19. A system for opening and operating a financial transaction account,
the system including:

   at least one processor for:

   receiving a request via a communications network to
open a financial transaction account with a financial
institution, the request including a device
identification being an identification of a user's
communications device from where the request was transmitted onto the communications network, and a user identification being an identification of the user for whom the financial transaction account will be opened;

validating the device identification and the user identification;

opening a financial transaction account; and

linking the device identification and the user identification to the financial transaction account for the user so that the user can conduct financial transactions on the account using the device; and

a memory for storing data representing the device identification, the user identification and the financial transaction account.

20. A system according to claim 19 wherein the processor further receives a financial transaction card identification and links the financial transaction card identification to the device identification, the user identification and the financial transaction account so that the user can conduct financial transactions on the account using the financial transaction card.

21. A system according to claim 19 or claim 20 wherein the communications network is a cellular communications network and the communications device is a cellular communications device.

22. A system according to claim 20 or claim 21 wherein in response to use of the financial transaction card, the at least one processor prompts the user via the communications network to validate the
transaction by transmitting a validation message using the communication device linked to the financial transaction account.

23. A system according to any one of claims 19 to 22 wherein the validating of the device identification and the user identification is done by the at least one processor accessing one or more databases of valid device identifications and valid user identifications.

24. A system according to any one of claims 19 to 23 wherein the validating of device identification and the user identification includes the at least one processor checking that there are no other financial transaction accounts with the same device identification or user identification.

25. A system according to any one of claims 19 to 24 further including the at least one processor prompting the user via the communications network to enter a source of initial funds for the financial transaction account.

26. A system according to any one of claims 19 to 25 wherein the at least one processor further prompting the user to enter a personal identification number (PIN) which can be used at a later stage to validate transactions.

27. A system for opening and operating a financial transaction account, the system including:

    at least one processor for:

        receiving a request via a communications network to open a financial transaction account with a financial institution, the request including a device identification being an identification of a
communications device from where the request was transmitted onto the communications network, and a user identification being an identification of the user for whom the financial transaction account will be opened;

validating the device identification and the user identification; and

transmitting the device identification and the user identification to the financial institution so that the financial institution can open a financial transaction account for the user so that the user can conduct financial transactions on the account using the device.

28. A system according to claim 27 wherein the processor further receives a financial transaction card identification and links the financial transaction card identification to the device identification, the user identification and the financial transaction account so that the user can conduct financial transactions on the account using the financial transaction card.

29. A system according to claim 27 or claim 28 wherein the communications network is a cellular communications network and the communications device is a cellular communications device.

30. A system according to claim 28 or claim 29 wherein in response to use of the financial transaction card, the at least one processor prompts the user via the communications network to validate the transaction by transmitting a validation message using the communication device linked to the financial transaction account.
31. A system according to any one of claims 27 to 30 wherein the validating of the device identification and the user identification is done by the at least one processor accessing one or more databases of valid device identifications and valid user identifications.

32. A system according to any one of claims 27 to 31 wherein the validating of device identification and the user identification includes the at least one processor checking that there are no other financial transaction accounts with the same device identification or user identification.

33. A system according to any one of claims 27 to 32 further including the at least one processor prompting the user via the communications network to enter a source of initial funds for the financial transaction account.

34. A system according to any one of claims 27 to 33 wherein the at least one processor further prompting the user to enter a personal identification number (PIN) which can be used at a later stage to validate transactions.
receiving a request via a communications network to open a financial transaction account with a financial institution, the request including a device identification and a user identification

validating the device identification and the user identification

prompting the user to enter a financial transaction card identification

receiving a financial transaction card identification via the communications network

opening a financial transaction account and linking the financial transaction card identification, the device identification and the user identification to the financial transaction account

prompting the user via the communications network to validate the transaction by transmitting a validation message using the communication device linked to the financial transaction account

FIGURE 2