Offer and acceptance matching to obtain physical cash

TECHNICAL FIELD

[001] The following discloses a device and method that allows users to obtain cash even when there is no nearby ATM (automated teller machine) or when a nearby ATM is unable to dispense cash.

BACKGROUND

[002] While there is a drive to move into a cashless society, there will still be a need for cash. For instance, there are places or occasions where cash is required, since not everyone is savvy with cashless payments.

[003] In such circumstances, where cash is needed, an ATM may not be around or a nearby ATM has run out of cash or is unable to dispense cash due to a network error.

[004] There is thus a need to address the above shortcomings. Other desirable features and characteristics will become apparent from the subsequent detailed description and the appended claims, taken in conjunction with the accompanying drawings and this background of the present disclosure.

SUMMARY ~~OF THE INVENTION~~

[004a] In a first aspect, the present disclosure provides an offer-and-acceptance matching server comprising: at least one processor; at least one memory including computer program code and a database, wherein the database contains records of a plurality of fund offer deals and a plurality of fund acceptance deals, wherein a fund offer deal indicates a registered request to provide cash and a fund acceptance deal indicates a registered request for required cash; and a communication port coupled to the at least one processor, wherein the at least one memory and the computer program code are configured to, with the at least one processor, cause the offer-and-acceptance matching server at least to: receive from a consenter, through the communication port, a query to determine deals for fund offer, fund acceptance, or both, available within a provided distance from a physical location of the consenter; in response to receiving the query: obtain the physical location of the consenter via a global positioning system (GPS) capability of a computing device of the consenter;

interrogate the database to determine one or more fund offer deals, one or more fund acceptance deals, or both that match the query; identify locations of parties associated with the one or more fund offer deals, one or more fund acceptance deals, or both that match the query based on the locations of the parties captured via a GPS capability; and respond, through the communication port, to the query with the deals and corresponding locations of the parties that are within the provided distance from the physical location of the consenter for surfacing the deals on a map according to the locations of the parties who registered the deals; receive, through the communication port, an indication of a selected deal selected by the consenter from the deals communicated in the response; transmit, through the communication port, a notification of the selection of the selected deal to a party who registered the selected deal; transmit, through the communication port, a generated authentication code to either the consenter or the party who registered the selected deal; receive, through the communication port, an authentication code from the other of the consenter or the party who registered the selected deal; compare the received authentication code against the generated authentication code for a match; and transmit, in an event of a match of authentication codes, a command through the communication port to perform a fund transfer, of an amount stipulated in the selected deal, wherein the fund transfer is from a fund account linked to the consenter to a fund account linked to the party who registered the selected deal in a case of a fund offer deal, and wherein the fund transfer is from the fund account linked to the party who registered the selected deal to the fund account linked to the consenter in a case of a fund acceptance deal.

[004b] In a second aspect, the present disclosure provides an offer-and-acceptance matching server comprising: at least one processor; at least one memory including computer program code and a database, wherein the database contains records of a plurality of fund offer deals and a plurality of fund acceptance deals; and

a communication port coupled to the at least one processor; the at least one memory and the computer program code configured to, with the at least one processor, cause the offer-and-acceptance matching server at least to: receive a request to register a fund acceptance deal comprising a stipulated fund amount and a commission figure for acceptance of the fund acceptance deal, wherein the fund acceptance deal indicates a request for required cash; detect for a presence of at least the stipulated fund amount and the commission figure for acceptance of the fund acceptance deal; obtain a first physical location via a global positioning system (GPS) capability of a computing device of a source of the request to register the fund acceptance deal; register the fund acceptance deal as a registered fund acceptance deal with the database in response to

affirmative detection of the stipulated fund amount and the commission figure for acceptance of the fund acceptance deal, the registered fund acceptance deal being included in the records of the plurality of fund acceptance deals in the database; receive a request to register a fund offer deal comprising a stipulated fund amount and a commission figure for acceptance of the fund offer deal, wherein the fund offer deal indicates a request to provide cash; detect for presence of at least the stipulated fund amount and the commission figure for acceptance of the fund offer deal; obtain a second physical location via a GPS capability of a computing device of a source of the request to register the fund offer deal; register the fund offer deal as a registered fund offer deal with the database in response to affirmative detection of the fund amount and the commission figure for acceptance of the fund offer deal, the registered fund offer deal being included in the records of the plurality of fund offer deals in the database; receive from a consenter, through the communication port, a query to determine deals for fund offer, fund acceptance, or both; obtain a third physical location via a GPS capability of a computing device of the consenter; interrogate the database to determine at least one fund offer deal, at least one fund acceptance deal, or both that match the query; identify physical locations of parties associated with the at least one fund offer deal, at least one fund acceptance deal, or both that match the query based on the physical locations of the parties captured via a GPS capability; respond, through the communication port, to the query with the deals that match the query and corresponding physical locations of the parties that are within a particular distance from the third physical location of the consenter, wherein the deals that match the query include the registered fund offer deal, the registered fund acceptance deal, or both; receive, through the communication port, an indication of a selected deal selected by a consenter from the deals retrieved in the response; transmit, through the communication port, a notification of the selection of the selected deal to a party who registered the selected deal; transmit, through the communication port, a generated authentication code to either the consenter or the party who registered the selected deal; receive, through the communication port, an authentication code from the other of the consenter or the party who registered the selected deal; compare the received authentication code against the generated authentication code for a match; and transmit, in an event of a match of authentication codes, a command through the communication port to perform a fund transfer of an amount stipulated in the selected deal, wherein the fund transfer is from a fund account linked to the consenter to a fund account linked to the party who registered the selected deal in a case of a fund offer deal, and wherein the fund transfer is from the fund account linked to the party who

registered the selected deal to the fund account linked to the consenter in a case of a fund acceptance deal.

[004c] In a third aspect, the present disclosure provides offer-and-acceptance matching method comprising: receiving, by a computing device, from a consenter a query to determine deals for fund offer, fund acceptance, or both, available within a provided distance from a physical location of the consenter, wherein a deal for a fund offer indicates a registered request to provide cash and a deal for a fund acceptance indicates a registered request for required cash; obtaining, by the computing device, the physical location of the consenter via a global positioning system (GPS) capability of a computing device of the consenter; interrogating, by the computing device, a database to determine one or more fund offer deals, one or more fund acceptance deals, or both that match the query, wherein the database contains records of the one or more fund offer deals and the one or more fund acceptance deals registered with the database; identifying, by the computing device, locations of parties associated with the one or more fund offer deals, one or more fund acceptance deals, or both that match the query based on the locations of the parties captured via a GPS capability; responding, by the computing device, to the query with the deals that match the query within the provided distance from the physical location of the consenter; receiving, by the computing device, an indication of a deal selected by the consenter from the deals retrieved in the response; transmitting, by the computing device, a notification of the selection to a party who registered the selected deal; transmitting, by the computing device, a generated authentication code to either the consenter or the party who registered the selected deal; receiving, by the computing device, an authentication code from the other of the consenter or the party who registered the selected deal; comparing, by the computing device, the received authentication code against the generated authentication code for a match; and transmitting, by the computing device, in an event of a match, a command to perform a fund transfer of an amount stipulated in the selected deal, wherein the fund transfer is from a fund account linked to the consenter to a fund account linked to the party who registered the selected deal in a case of a fund offer deal, and wherein the fund transfer is from the fund account linked to the party who registered the selected deal to the fund account linked to the consenter in a case of a fund acceptance deal.

[005] According to a first ~~aspect~~embodiment, there is provided an offer-and-acceptance matching server comprising: at least one processor; at least one memory including computer program code; and a communication port coupled to the processor the at least one memory and the computer program code configured

to, with the at least one processor, cause the offer-and-acceptance matching server at least to: receive, through the communication port, a query to determine deals for fund offer, fund acceptance, or both, available within a provided distance; interrogate a database to determine one or more fund offer deals, one or more fund acceptance deals, or both that match the query, the database containing records of such deals registered with the database; and respond, through the communication port, to the query with the deals that are within the provided distance.

[006] According to a second ~~aspect~~embodiment, there is provided an offer-and-acceptance matching server comprising: at least one processor; at least one

memory including computer program code; and a communication port coupled to the processor the at least one memory and the computer program code configured to, with the at least one processor, cause the offer-and-acceptance matching server at least to: receive, through the communication port, a query to determine deals for fund offer, fund acceptance, or both; interrogate a database to determine one or more fund offer deals, one or more fund acceptance deals, or both that match the query, the database containing records of such deals registered with the database; respond, through the communication port, to the query with the deals that match the query; receive, through the communication port, an indication of a deal selected by a consenter from the deals retrieved in the response; transmit, through the communication port, a notification of the selection to a party who registered the selected deal; transmit, through the communication port, a generated authentication code to either the consenter or the party who registered the selected deal; receive, through the communication port, an authentication code from the other of the consenter or the party who registered the selected deal; compare the received authentication code against the generated authentication code for a match; and transmit, in the event of a match, a command through the communication port to effect cash flow, of an amount stipulated in the selected deal, between a fund account linked to the consenter and a fund account linked to the party who registered the selected deal.

[007] According to a third ~~aspect~~embodiment, there is provided an offer-and-acceptance matching server comprising: at least one processor; at least one memory including computer program code; and a communication port coupled to the processor the at least one memory and the computer program code configured to, with the at least one processor, cause the offer-and-acceptance matching server at least to: receive a request to register a fund acceptance deal or a fund offer deal; detect for presence of at least a stipulated amount and a commission for acceptance of the deal; register the deal with a database in response to affirmative detection of the fund amount and the commission figure; receive, through the communication port, a query to determine deals for fund offer, fund acceptance, or both; interrogate the database to determine the registered fund offer deal, the registered fund acceptance deal, or both that match the query; respond, through the communication port, to the query with the deals that match the query; and receive, through the communication port, an indication of a deal selected by a consenter from the deals retrieved in the response.

[008] According to a fourth ~~aspect~~embodiment, there is provided an offer-and-acceptance matching method comprising receiving a query to determine deals for fund offer, fund acceptance, or both, available within a provided distance; interrogating a database to determine one or more fund offer deals, one or more fund acceptance deals, or both that match the query, the database containing records of such deals registered with the database; and responding to the query with the deals that are within the provided distance.

[009] According to a fifth ~~aspect~~embodiment, there is provided an offer-and-acceptance matching method comprising receiving a query to determine deals for fund offer, fund acceptance, or both; interrogating a database to determine one or more fund offer deals, one or more fund acceptance deals, or both that match the query, the database containing records of such deals registered with the database; responding to the query with the deals that match the query; receiving an indication of a deal selected by a consenter from the deals retrieved in the response; transmitting a notification of the selection to a party who registered the selected deal; transmitting a generated authentication code to either the consenter or the party who registered the selected deal; receiving an authentication code from the other of the consenter or the party who registered the selected deal; comparing the received authentication code against the generated authentication code for a match; and transmitting, in the event of a match, a command to effect cash flow, of an amount stipulated in the selected deal, between a fund account linked to the consenter and a fund account linked to the party who registered the selected deal.

[010] According to a sixth ~~aspect~~embodiment, there is provided an offer-and-acceptance matching method comprising receiving a request to register a fund acceptance deal or a fund offer deal; detecting for presence of at least a stipulated amount and a commission for acceptance of the deal; registering the deal with a database in response to affirmative detection of the fund amount and the commission figure; receiving a query to determine deals for fund offer, fund acceptance, or both; interrogating the database to determine the registered fund offer deal, the registered fund acceptance deal, or both that match the query; responding to the query with the deals that match the query; and receiving an indication of a deal selected by a consenter from the deals retrieved in the response.

BRIEF DESCRIPTION OF THE DRAWINGS

CLAIMS

1. An offer-and-acceptance matching server comprising:

at least one processor;

at least one memory including computer program code~~;~~ and a database, wherein the database contains records of a plurality of fund offer deals and a plurality of fund acceptance deals, wherein a fund offer deal indicates a registered request to provide cash and a fund acceptance deal indicates a registered request for required cash; and

a communication port coupled to the at least one processor, wherein

the at least one memory and the computer program code are configured to, with the at least one processor, cause the offer-and-acceptance matching server at least to:

receive from a consenter, through the communication port, a query to determine deals for fund offer, fund acceptance, or both, available within a provided distance from a physical location of the consenter;

in response to receiving the query:

obtain the physical location of the consenter via a global positioning system (GPS) capability of a computing device of the consenter;

interrogate ~~a~~ the database to determine one or more fund offer deals, one or more fund acceptance deals, or both that match the query~~, the database containing records of such deals registered with the database~~; ~~and~~

identify locations of parties associated with the one or more fund offer deals, one or more fund acceptance deals, or both that match the query based on the locations of the parties captured via a GPS capability; and

respond, through the communication port, to the query with the deals and corresponding locations of the parties that are within the provided distance from the physical location of the consenter for surfacing the deals on a map according to the locations of the parties who registered the deals;~~.~~

~~2. The offer-and-acceptance matching server of claim 1, wherein the offer-and-acceptance matching server is further configured to:~~

receive, through the communication port, an indication of a selected deal selected by ~~a~~ the consenter from the deals ~~retrieved~~ communicated in the response;

transmit, through the communication port, a notification of the selection ~~to a party who registered~~of the selected deal~~.~~

~~3. The offer-and-acceptance matching server of claim 2, further configured to:~~

~~transmit, through the communication port, a generated authentication code to either the consenter or the party who registered the selected deal;~~

~~receive, through the communication port, an authentication code from the other of the consenter or the party who registered the selected deal;~~

~~compare the received authentication code against the generated authentication code for a match; and~~

~~transmit, in the event of a match, a command through the communication port to effect cash flow, of an amount stipulated in the selected deal, between a fund account linked to the consenter and a fund account linked to the party who registered the selected deal.~~

~~4. An offer-and-acceptance matching server comprising:~~

~~at least one processor;~~

~~at least one memory including computer program code; and~~

~~a communication port coupled to the processor~~

~~the at least one memory and the computer program code configured to, with the at least one processor, cause the offer-and-acceptance matching server at least to:~~

~~receive, through the communication port, a query to determine deals for fund offer, fund acceptance, or both;~~

~~interrogate a database to determine one or more fund offer deals, one or more fund acceptance deals, or both that match the query, the database containing records of such deals registered with the database;~~

~~respond, through the communication port, to the query with the deals that match the query;~~

~~receive, through the communication port, an indication of a deal selected by a consenter from the deals retrieved in the response;~~

~~transmit, through the communication port, a notification of the selection~~ to a party who registered the selected deal;

transmit, through the communication port, a generated authentication code to either the consenter or the party who registered the selected deal;

receive, through the communication port, an authentication code from the other of the consenter or the party who registered the selected deal;

compare the received authentication code against the generated authentication code for a match; and

transmit, in ~~the~~ an event of a match of authentication codes, a command through the communication port to ~~effect cash flow~~perform a fund transfer, of an amount stipulated in the selected deal, ~~between~~ wherein the fund transfer is from a fund account linked to the consenter ~~and~~ to a fund account linked to the party who registered the selected deal in a case of a fund offer deal, and wherein the fund transfer is from the fund account linked to the party who registered the selected deal to the fund account linked to the consenter in a case of a fund acceptance deal.

~~5~~2. The offer-and-acceptance matching server of claim ~~3 or 4~~1, wherein the generated ~~communication~~ authentication code is only transmitted to a party offering the funds in the selected deal and wherein the authentication code is received from a party accepting the funds in the selected deal.

~~6~~3. The offer-and-acceptance matching server of ~~any of one of the claims 3 to 5~~claim 1, wherein the generated authentication code and the notification of the selection are simultaneously transmitted.

~~7~~4. The offer-and-acceptance matching server of ~~any one of the claims 3 to 5~~claim 1, wherein the ~~effected cash flow~~fund transfer includes a commission applied on the selected deal.

~~8~~5. The offer-and-acceptance matching server of ~~any one of the claims 3 to 7~~claim 1, wherein the offer-and-acceptance matching server is further configured to ~~either~~:

provide, through the communication port, the consenter with contact details of the party who registered the selected deal; or

provide, through the communication port, the party who registered the selected deal with contact details of the consenter; or

both.

~~9~~6. The offer-and-acceptance matching server of claim ~~8~~5, wherein the offer-and-acceptance matching server is further configured to provide the contact details in a transmission format comprising any one or more of an application specific format, short message service (SMS) or email.

~~10~~7. The offer-and-acceptance matching server of ~~any one of the preceding claims~~claim 1, wherein the offer-and-acceptance matching server is further configured to:

receive a request to register a fund acceptance deal or a fund offer deal with the database;

detect for a presence of at least a stipulated fund amount and a commission figure for acceptance of the deal; and

register the deal with the database in response to affirmative detection of the stipulated fund amount and the commission figure.

~~11~~8. An offer-and-acceptance matching server comprising:

at least one processor;

at least one memory including computer program code~~;~~ and a database, wherein the database contains records of a plurality of fund offer deals and a plurality of fund acceptance deals; and

a communication port coupled to the at least one processor;

the at least one memory and the computer program code configured to, with the at least one processor, cause the offer-and-acceptance matching server at least to:

receive a request to register a fund acceptance deal ~~or a fund offer deal deal~~comprising a stipulated fund amount and a commission figure for acceptance of the fund acceptance deal, wherein the fund acceptance deal indicates a request for required cash;

detect for a presence of at least ~~a~~the stipulated fund amount and ~~a~~the commission figure for acceptance of the fund acceptance deal;

obtain a first physical location via a global positioning system (GPS) capability of a computing device of a source of the request to register the fund acceptance deal;

register the fund acceptance deal as a registered fund acceptance deal with ~~a~~the database in response to affirmative detection of the stipulated fund amount and the commission figure for acceptance of the fund acceptance deal, the registered fund acceptance deal being included in the records of the plurality of fund acceptance deals in the database;

receive a request to register a fund offer deal comprising a stipulated fund amount and a commission figure for acceptance of the fund offer deal, wherein the fund offer deal indicates a request to provide cash;

detect for presence of at least the stipulated fund amount and the commission figure for acceptance of the fund offer deal;

obtain a second physical location via a GPS capability of a computing device of a source of the request to register the fund offer deal;

register the fund offer deal as a registered fund offer deal with the database in response to affirmative detection of the fund amount and the commission figure for acceptance of the fund offer deal, the registered fund offer deal being included in the records of the plurality of fund offer deals in the database;

receive from a consenter, through the communication port, a query to determine deals for fund offer, fund acceptance, or both;

obtain a third physical location via a GPS capability of a computing device of the consenter;

interrogate the database to determine ~~the registered~~at least one fund offer deal, ~~the registered~~ at least one fund acceptance deal, or both that match the query;

identify physical locations of parties associated with the at least one fund offer deal, at least one fund acceptance deal, or both that match the query based on the physical locations of the parties captured via a GPS capability;

respond, through the communication port, to the query with the deals that match the query~~; and~~and corresponding physical locations of the parties that are within a particular distance from the third physical location of the consenter, wherein the deals that match the query include the registered fund offer deal, the registered fund acceptance deal, or both;

receive, through the communication port, an indication of a selected deal selected by a consenter from the deals retrieved in the response;

transmit, through the communication port, a notification of the selection of the selected deal to a party who registered the selected deal;

transmit, through the communication port, a generated authentication code to either the consenter or the party who registered the selected deal;

receive, through the communication port, an authentication code from the other of the consenter or the party who registered the selected deal;

compare the received authentication code against the generated authentication code for a match; and

transmit, in an event of a match of authentication codes, a command through the communication port to perform a fund transfer of an amount stipulated in the selected deal, wherein the fund transfer is from a fund account linked to the consenter to a fund account linked to the party who registered the selected deal in a case of a fund offer deal, and wherein the fund transfer is from the fund account linked to the party who registered the selected deal to the fund account linked to the consenter in a case of a fund acceptance deal.

~~12~~9. The offer-and-acceptance matching server of ~~any one of the preceding claims~~claim 8, wherein the offer-and-acceptance matching server is further configured to:

detect that a currency of the fund offer deals or the fund acceptance deals is ~~a~~ different from a currency of a fund account linked to be debited for the fund acceptance deal or credited for the fund offer deal;

obtain an exchange rate between the currency of the fund offer deals or the fund acceptance deals and the currency of the linked fund account; and

determine a cost of the fund offer deals or the fund acceptance deals in the currency of the linked fund account.

10. The offer-and-acceptance matching server of claim 8, wherein the offer-and-acceptance matching server is further configured to:

receive information of one or more bank accounts and mobile number of a user registering the fund acceptance deal or the fund offer deal; and

obtain a location of the user registering the fund acceptance deal or the fund offer deal.

~~13~~11. An offer-and-acceptance matching method comprising

receiving, by a computing device, from a consenter a query to determine deals for fund offer, fund acceptance, or both, available within a provided distance from a physical location of the consenter, wherein a deal for a fund offer indicates a registered request to provide cash and a deal for a fund acceptance indicates a registered request for required cash;

obtaining, by the computing device, the physical location of the consenter via a global positioning system (GPS) capability of a computing device of the consenter;

interrogating, by the computing device, a database to determine one or more fund offer deals, one or more fund acceptance deals, or both that match the query, wherein the database containsing records of suchthe one or more fund offer deals and the one or more fund acceptance deals registered with the database; and

identifying, by the computing device, locations of parties associated with the one or more fund offer deals, one or more fund acceptance deals, or both that match the query based on the locations of the parties captured via a GPS capability;

responding, by the computing device, to the query with the deals that are match the query within the provided distance from the physical location of the consenter;.

14. The method of claim 13, further comprising

receiving, by the computing device, an indication of a deal selected by athe consenter from the deals retrieved in the response;

transmitting, by the computing device, a notification of the selection to a party who registered the selected deal.;

15. The method of claim 14, further comprising

transmitting, by the computing device, a generated authentication code to either the consenter or the party who registered the selected deal;

receiving, by the computing device, an authentication code from the other of the consenter or the party who registered the selected deal;

comparing, by the computing device, the received authentication code against the generated authentication code for a match; and

transmitting, by the computing device, in thean event of a match, a command through the communication port to effect cash flowperform a fund transfer , of an amount stipulated in the selected deal, between wherein the fund transfer is from a fund account linked to the consenter and to a fund account linked to the party who registered the selected deal in a case of a fund offer deal, and wherein the fund transfer is from the fund account linked .

~~16. An offer-and-acceptance matching method comprising~~

~~receiving a query to determine deals for fund offer, fund acceptance, or both;~~

~~interrogating a database to determine one or more fund offer deals, one or more fund acceptance deals, or both that match the query, the database containing records of such deals registered with the database;~~

~~responding to the query with the deals that match the query;~~

~~receiving an indication of a deal selected by a consenter from the deals retrieved in the response;~~

~~transmitting a notification of the selection~~ to ~~a~~ the party who registered the selected deal ~~;~~

~~transmitting a generated authentication code to either the consenter or the party who registered the selected deal;~~

~~receiving an authentication code from the other of the consenter or the party who registered the selected deal;~~

~~comparing the received authentication code against the generated authentication code for a match; and~~

~~transmitting, in the event of a match, a command to effect cash flow, of an amount stipulated in the selected deal, between~~to ~~a~~the fund account linked to the consenter ~~and a fund account linked to the party who registered the selected~~in a case of a fund acceptance deal.

~~17~~12. The method of claim ~~15 or 16~~11, wherein the generated ~~communication~~ authentication code is only transmitted to a party offering the funds in the selected deal and wherein the authentication code is received from a party accepting the funds in the selected deal.

~~18~~13. The method of ~~any one of the claims 15 to 17~~claim 11, wherein the ~~effected cash flow~~fund transfer includes a commission applied on the selected deal.

~~19~~14. The method of ~~any one of the claims 15 to 18~~claim 11, further comprising

providing, by the computing device, the consenter with contact details of the party who registered the selected deal; or

providing, by the computing device, the party who registered the selected deal with contact details of the consenter; or

both.

~~20~~15. The method of ~~any one of the claims 13 to 19~~claim 11, further comprising:

receiving, by the computing device, a request to register a fund acceptance deal or a fund offer deal with the database;

detecting, by the computing device, for a presence of at least a stipulated fund amount and a commission figure for acceptance of the deal; and

registering, by the computing device, the deal with the database in response to affirmative detection of the stipulated fund amount and the commission figure.

~~21. An offer-and-acceptance matching method comprising~~

~~receiving a request to register a fund acceptance deal or a fund offer deal;~~

~~detecting for presence of at least a stipulated amount and a commission for acceptance of the deal;~~

~~registering the deal with a database in response to affirmative detection of the fund amount and the commission figure;~~

~~receiving a query to determine deals for fund offer, fund acceptance, or both;~~

~~interrogating the database to determine the registered fund offer deal, the registered fund acceptance deal, or both that match the query;~~

~~responding to the query with the deals that match the query; and~~

~~receiving an indication of a deal selected by a consenter from the deals retrieved in the response.~~