Claims

1. A computer-implemented method of coordinating usage of automatic teller machines comprising, the method comprising a computer system comprising at least one server performing the steps of:

(i) identifying based on a first location, one or more automatic teller machines having respective locations meeting a proximity criterion defined based on the first location;

(ii) polling the identified automatic teller machines, to determine whether each of the identified automatic teller machines is able to perform a cash dispensing operation; and

(iii) transmitting description data indicative of the identified automatic teller machines for which the result of the determination is positive, to a display device for presentation to a user.

2. A method according to claim 1 including a step, before said step of identifying one or more automatic teller machines, of receiving a message comprising data indicative of a location of an automatic teller machine, and using the location of the automatic teller machine as the first location.

3. A method according to claim 1 including a step before said step of identifying one or more automatic teller machines, of receiving a message from user equipment associated with the user, the message comprising data indicative of a location associated with the user, and using the location associated with the user as the first location.

4. A method according to claim 3 in which the data indicative of the location associated with the user is identity data for the user, the method comprising the server using the user identity data to access a record in a database, the record being associated with the user and specifying the location associated with the user.

5. A method according to any preceding claim in which the computer system is operative to communicate with one or more servers which are each associated with one or more corresponding automatic teller machines,

the computer system being operative to receive an authorization request from a first of the servers containing identity information and specifying an amount of cash, to identify a second of the servers using the identity information, to transmit the authorization request to the second of the servers, and to relay a message generated by the second of the servers to the first server.

6. A method according to any preceding claim in which the step of polling the identified automatic teller machines is performed by:

identifying one or more servers associated with corresponding ones of the identified automatic teller machines,

transmitting a polling request to the identified servers specifying the identity of the corresponding identified automatic teller machines, the polling request being operative to cause the identified servers to poll the corresponding identified automatic teller machines, to determine whether each of the identified automatic teller machines is able to perform the cash dispensing operation;

and receiving from the identified servers data indicating the ability of the corresponding identified automatic teller machines to dispense cash.

7. A method of coordinating usage of automatic teller machines comprising an acquirer server associated with a plurality of automatic teller machines performing the steps of:

(i) receiving from a first of the plurality of automatic teller machines a non-availability message indicative of the first automatic teller machine being unable to perform a cash dispensing operation;

(ii) identifying based on a first location associated with the first automatic teller machine, one or more second ones of the automatic teller machines having

respective second locations meeting a proximity criterion defined based on the first location;

(iii) polling the identified automatic teller machines, to determine whether the automatic teller machines are able to perform a cash dispensing operation; and

(iv) transmitting description data indicative of the identified automatic teller machines for which the result of the determination is positive, to the first automatic teller machine for display on the first automatic teller machine.

8. A method according to claim 7 including a preliminary step, before the step of receiving the non-availability message, of receiving from the first automatic teller machine a message indicative of the identity of a user interacting with the first automatic teller machine, the non-availability message being indicative of the inability of the first automatic teller machine to complete a cash withdrawal operation specified by the user.

9. A method according to claim 7 or claim 8 further comprising:

transmitting to an external server a message indicating the location of the automatic teller machine;

receiving from the external server description data indicating the respective locations of other automatic teller machines which are not among the plurality of automatic teller machines, and which are able to perform the cash dispensing operation; and

transmitting the description data to the first automatic teller machine for display by the first automatic teller machine.

10. A method according to any preceding claim further comprising:

at intervals polling a set of one or more of the identified automatic teller machines for which the determination was positive, to determine whether those automatic teller machines are still able to perform the cash dispensing operation, and

upon determining that any of the one or more identified automatic teller machines is no longer able to perform the cash dispensing operation, transmitting an update message.

11. A method of coordinating usage of automatic teller machines comprising an acquirer server associated with a plurality of automatic teller machine performing the steps of:

(i) receiving from one of the automatic teller machines a non-availability message indicative of the first automatic teller machine being unable to perform a cash dispensing operation;

(ii) transmitting to an external server a message indicating the location of the automatic teller machine;

(iii) receiving from the external server description data indicating the respective locations of other automatic teller machines which are not among the plurality of automatic teller machines, and which are able to perform the cash dispensing operation, the other automatic teller machines having respective locations meeting a proximity criterion defined based on the first location; and

(iv) transmitting the description data to the automatic teller machine for display by the automatic teller machine.

12. A computer system for coordinating usage of automatic teller machines, the computer system comprising:

a processing device;

a data storage device storing program instructions operative, when performed by the processing device, to cause the processing device to:

(i) identify based on a first location, one or more automatic teller machines having respective locations meeting a proximity criterion defined based on the first location;

(ii) poll the identified automatic teller machines, to determine whether each of the identified automatic teller machines is able to perform a cash dispensing operation; and

(iii) transmit description data indicative of the identified automatic teller machines for which the result of the determination is positive, to a display device for presentation to a user.

13. A computer system according to claim 12 in which the program instructions are operative to cause the processing device to poll the identified automatic teller machines by:

identifying one or more servers associated with corresponding ones of the identified automatic teller machines,

transmitting a polling request to the identified servers specifying the identity of the corresponding identified automatic teller machines, the polling request being an instruction to cause the identified servers to poll the corresponding identified automatic teller machines, to determine whether each of the identified automatic teller machines is able to perform the cash dispensing operation; and

receiving from the identified servers data indicating the ability of the corresponding identified automatic teller machines to dispense cash.

14. A computer system according to any of claims 12 to 13 in which the program instructions are further operative to cause the processing device:

at intervals to poll a set of one or more of the identified automatic teller machines for which the determination was positive, to determine whether those automatic teller machines are still able to perform the cash dispensing operation, and

upon determining that any of the one or more identified automatic teller machines is no longer able to perform the cash dispensing operation, to transmit an update message.

15. A computer system for coordinating usage of automatic teller machines and associated with a plurality of automatic teller machines, the computer system comprising:

a processing device;

a data storage device storing program instructions operative, when performed by the processing device, to cause the processing device to:

(i) receive from a first of the plurality of automatic teller machines a non-availability message indicative of the first automatic teller machine being unable to perform a cash dispensing operation;

(ii) identify based on a first location associated with the first automatic teller machine, one or more second ones of the automatic teller machines having respective second locations meeting a proximity criterion defined based on the first location;

(iii) poll the identified automatic teller machines, to determine whether the automatic teller machines are able to perform a cash dispensing operation; and

(iv) transmit description data indicative of the identified automatic teller machines for which the result of the determination is positive, to the first automatic teller machine.

16. A computer system according to claim 15 in which the program instructions are operative to cause the processing device to receive from the first automatic teller machine a message indicative of the identity of a user interacting with the first automatic teller machine, the non-availability message being indicative of the inability of the first automatic teller machine to complete a cash withdrawal operation specified by the user.

17. A computer system according to claim 15 or claim 16 in which the program instructions are operative to cause the processing device to:

transmit to an external server a message indicating the location of the automatic teller machine;

receive from the external server description data indicating the respective locations of other automatic teller machines which are not among the plurality of automatic teller machines, and which are able to perform the cash dispensing operation; and

transmit the description data to the first automatic teller machine for display by the first automatic teller machine.

18. A computer system for coordinating usage of automatic teller machines and associated with a plurality of automatic teller machines, the computer system comprising:

a processing device;

a data storage device storing program instructions operative, when performed by the processing device, to cause the processing device to:

(i) receive from one of the automatic teller machines a non-availability message indicative of the first automatic teller machine being unable to perform a cash dispensing operation;

(ii) transmit to an external server a message indicating the location of the automatic teller machine;

(iii) receive from the external server a message indicating the respective locations of other automatic teller machines which are not among the plurality of automatic teller machines, and which are able to perform the cash dispensing operation, the other automatic teller machines having respective locations meeting a proximity criterion defined based on the first location; and

(iv) transmit description data indicative of the locations of the other teller machines to the automatic teller machine for display by the automatic teller machine.

19. A computerized network comprising:

a plurality of servers operated by respective banks;

a plurality of automatic teller machines, each of the automatic teller machines being controlled by a corresponding one of the servers; and

a gateway computer system for relaying communications between the servers;

wherein the gateway computer system comprises:

a processing device;

a data storage device storing program instructions operative, when performed by the processing device, to cause the processing device to:

(i) identify based on a first location, one or more of the automatic teller machines having respective locations meeting a proximity criterion defined based on the first location;

(ii) poll the identified automatic teller machines, to determine whether each of the identified automatic teller machines is able to perform a cash dispensing operation; and

(iii) transmit description data indicative of the identified automatic teller machines for which the result of the determination is positive, to a display device for presentation to a user.

20. An automatic teller machine, the automatic teller machine being operative, following a determination that it is unable to perform an authorized cash dispensing operation, to receive and display to a user description data describing one or more other ATMs which are in the proximity of the automatic teller machine according to a proximity criterion, and which are able to perform the cash dispensing operation.