Claims

1. A payment system, comprising:

a communications server;

~~at least one driver communications device;~~

at least one user communications device; and

a communications network equipment configured for the communications server, ~~the at least one driver communications device,~~ and the at least one user communications device, to establish communication with each other therethrough;

wherein the ~~driver~~ user communications device comprises a first processor and a first memory, the ~~driver~~ user communications device being configured, under control of the first processor, to execute first instructions stored in the first memory to:

send data regarding a ~~completed~~ trip to the communications server;

and wherein the communications server comprises a second processor and a second memory, the communications server being configured, under control of the second processor, to execute second instructions stored in the second memory to:

initiate a new transaction based on the ~~completed~~ trip data,

update a plurality of stored timing based parameters associated with a separate data store of a time series of historical transactions, based on data associated with the new transaction, wherein the stored timing based parameters are stored separately for each user,

determine a risk score for the transaction based on the parameters, and one or more risk rules, and

approve or decline the new transaction ~~based on the risk score;~~

~~and wherein the user communications device comprises a third processor and a third memory, the user communications device being~~is further configured, under control of the third processor, to execute third instructions stored in the third memory to:

receive data from the communications server confirming the transaction has been approved or declined.

2. The payment system of claim 1 further configured to:

~~store the plurality parameters, separately for each user;~~

calculate one or more metrics using the updated parameters, and

determine if the metrics satisfy at least one criterion for the risk score.

3. The payment system of claim 2 wherein the parameters include a minimum time between transactions and a maximum time between financial transactions, over a predetermined period.

4. The payment system of claim 3 wherein the at least one criterion includes a determination as to whether each financial transaction is fraudulent or not, based on the minimum time between financial transactions and maximum time between financial transactions.

5. The payment system of ~~any preceding~~ claim 2 wherein the metrics include an average time between financial transactions over the selected period.

6. The payment system of claim 5 wherein the parameters include, over a selected time period: a first financial transaction time, a last financial transaction time, and a count of financial transactions.

7. The payment system of claim 6 wherein the average time between financial transactions is calculated based on the difference between the first financial transaction time and the last financial transaction time divided by the number of financial transactions.

8. The payment system of claim 1 wherein the transactions are online user usage patterns, and the at least one criterion includes a determination as to whether the user has become less loyal and/or is currently contemplating a transaction.

9. The payment system of claim 8 further comprising displaying a user specific promotion if the user is determined to have become less loyal and/or is currently contemplating a transaction.

10. The payment system of claim 1 wherein the transaction are user usage patterns, and the at least one criterion includes a comparison of a plurality of users' transaction behaviour in relation to one or more selected credit card merchants.

11. A method, performed in a payment gateway, the method comprising, under control of processors for one or more server instances:

storing a plurality of timing based parameters associated with a separate data store of a time series of historical transactions, the stored timing based parameters are stored separately for each user;

receiving a request for a new transaction;

updating the plurality of parameters, based on data associated with the new transaction;

determining a risk score for the transaction based on the parameters, and one or more risk rules; and

approving or declining the new transaction based on the risk score.

12. The method of claim 11, wherein the plurality parameters are stored separately for each user, the method further comprising

calculating one or more metrics using the updated parameters; and

determining if the metrics satisfy at least one criterion for the risk score.

13. A computer program or computer program product comprising instructions for implementing the method of claim 11.

14. A non-transitory storage medium, storing instructions, which when executed by a processor, causes the processor to perform the method of claim 11.

15. A user communications device for communicating with a payment gateway comprising a processor and a memory, the communications device being configured, under control of the processor, to execute instructions stored in the memory to:

request the payment gateway to process a transaction;

if ~~a plurality of transactions for that user, based on~~ a plurality of timing based parameters associated with a time series of events, stored separately for that user, indicate an acceptable risk verdict, receive a transaction confirmation from the payment gateway; and

if the ~~plurality of~~ parameters ~~transactions~~ indicate an unacceptable risk verdict, receive a transaction declined from the payment gateway.

16. A system for online credit card transaction fraud prevention comprising:

a database configured to store a plurality of timing based parameters associated with a separate data store of a time series of transactions, wherein the parameters are stored separately for that user;

a payment gateway configured to receive a request for a payment on a new transaction, and to update the parameters with each new transaction;

a risk score server configured to determine a risk score for the transaction based on the parameters, wherein the determination includes calculating an average time between transactions for a user associated with the new transaction based on the parameters; and

wherein the payment gateway is configured to approve or decline the new transaction based on the risk score.

17. The system of claim 16 wherein the determination includes comparing the average time between transactions for the user across a plurality of selected time periods, to identify patterns or indications of automation or fraud.