as well as telecommunication networks. In particular, electronic devices may include personal computers, laptop computers, mobile phones including both feature and smart phones, tablets, smart watches and other personal digital assistants.

Similarly the term "transactional infrastructure" should be interpreted to include any electronic devices configured to conduct, or assist in the conducting of financial transactions and may include transaction servers, on-site or cloud based, transaction server networks as well as any electronic device referred to above.

The preceding discussion of the background to the invention is intended only to facilitate an understanding of the present invention. It should be appreciated that the discussion is not an acknowledgment or admission that any of the material referred to was part of the common general knowledge in the art as at the priority date of the application.

SUMMARY OF THE INVENTION

In accordance with a first aspect of the present invention, there is provided a system for conducting electronic payment transactions between transaction initiators and transaction responders, the system comprising a server system in communication with transactional infrastructure of the transaction initiators and transaction responders, the server system including:

a transaction initiation component for receiving a transaction initiation request from the transactional infrastructure of a transaction initiator, the transaction initiation request including a transaction initiator identifier and parameters of a transaction to be concluded between the transaction initiator and one or more transaction responders, the transaction initiation request excluding any transaction responder specific information;

a token generation component for creating a first, responder independent, token representing the transaction;

a storage component for storing the first token in a database associated with the server system;

a communication component for communicating the first token to the transactional infrastructure of the transaction initiator;

a transaction response component for receiving a transaction response request from the transactional infrastructure of at least one transaction responder, the transaction response request including a responder identifier and a second token;

a token comparator component for comparing the first and second tokens; and

a transaction settlement component for settling the transaction between the transaction initiator and transaction responder if the first and second tokens are found by the token comparator to correspond.

Transaction parameters may include one or more of a transaction amount, transaction reference, transaction alive time period, pre-authorisation limit, multiple responder indicator, multiple responder alive time period, overpayment allowed indicator, extra payment allowed indicator, extra payment alive time period, underpayment allowed indicator, underpayment percentage variance, underpayment alive time period and responder or consumer identifier.

Yet further features of this disclosure provide for the server system to include a transaction initiator and responder enrolment component for enrolling transaction initiators and responders for use of the system; for the enrolment component to facilitate compilation of custom software installable components for transaction initiators and responders during the enrolment process; and for each instance of custom software installable components to include at least an IP address, MAC address, derivative encryption key and transaction initiator or responder, as the case may be, identifier for the applicable transaction initiator or responder.

In accordance to a second aspect of the present invention, there is provided a system for conducting electronic payment transactions between transaction initiators and transaction responders, the system comprising a transaction server of a transaction initiator in communication with a server system of a transaction controller, the transaction server including:

a transaction initiation component for compiling a transaction initiation request including a transaction initiator identifier and parameters of a transaction to be concluded between the transaction initiator and one or more transaction responders, the transaction initiation request excluding any transaction responder specific information;

a communication component for communicating the transaction initiation request to the server system of the transaction controller;

a token receiving component for receiving a first, responder independent, token representing the transaction, from the server system of the transaction controller;

a token conveying component for conveying the first token to a consumer for onward transmission by the consumer to the transaction controller over an independent communication channel; and

a transaction result component for receiving a transaction result from the server system of the transaction controller.

In accordance to a third aspect of the present invention, there is provided a method for conducting electronic payment transactions between transaction initiators and transaction responders, the method being conducted at a server system and comprising the steps of:

receiving, at a transaction initiation component of the server system, a transaction initiation request from transactional infrastructure of a transaction initiator, the transaction

transaction initiator and responder transactional infrastructure if the payment confirmation or rejection messaged includes a confirmation of the transaction.

In accordance to a fourth aspect of the present invention, there is provided a method for conducting electronic payment transactions between transaction initiators and transaction responders, the method being conducted at a transaction server of a transaction initiator and including the steps of:

compiling, by way of a transaction initiation component of the transaction server, a transaction initiation request including a transaction initiator identifier and parameters of a transaction to be concluded between the transaction initiator and one or more transaction responders, the transaction initiation request excluding any transaction responder specific information;

transmitting, by way of a communication component, the transaction initiation request to a server system of a transaction controller;

receiving a first, responder independent, token representing the transaction, from the server system of the transaction controller;

conveying, by way of a token conveying component of the transaction server, the first token to a consumer for onward transmission by the consumer to the transaction controller over an independent communication channel; and

receiving, by way of a transaction result component, a transaction result from the server system of the transaction controller.

In accordance to a fifth aspect of the present invention, there is provided a computer program product for conducting electronic payment transactions between transaction initiators and transaction responders, the computer program product comprising a computer readable storage medium having computer-readable program code configured to carry out the steps of: receiving a transaction initiation request from transactional infrastructure of a transaction initiator, the transaction initiation request including a transaction initiator identifier and parameters of a transaction to be concluded between the transaction initiator and one or more transaction responders, the transaction initiation request excluding any transaction responder specific information; creating a first, responder independent, token representing the transaction; storing the first token in a database associated with the server system; communicating the first token to the transactional infrastructure of the transaction initiator; receiving a transaction response request from transactional infrastructure of at least one transaction responder, the transaction response request including a responder identifier and a second token; comparing the first and second tokens; and settling the transaction between the transaction initiator and transaction responder if the first and second tokens are found by the token comparator to correspond.

In accordance to a sixth aspect of the present invention, there is provided a computer program product for conducting electronic payment transactions between transaction initiators and transaction responders, the computer program product comprising a computer readable storage medium having computer-readable program code configured to carry out the steps of: compiling a transaction initiation request including a transaction initiator identifier and parameters of a transaction to be concluded between the transaction initiator and one or more transaction responders, the transaction initiation request excluding any transaction responder specific information; transmitting the transaction initiation request to a server system of a transaction controller; receiving a first, responder independent, token representing the transaction, from the server system of the transaction controller; conveying the first token, in printed, electronic or other format, to a consumer, for onward transmission by the consumer to the transaction controller over an independent communication channel; and receiving a transaction result from the server system of the transaction controller.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will now be described, by way of example only, with reference to the accompanying representations in which:

Figure 1 is a schematic illustration of an embodiment of a system for conducting electronic payment transactions according to the technology;

Figure 2 is a schematic illustration of the communication flow between transaction initiators and responders, and a transaction controller according to the technology;

Figure 3 is a swim-lane flow diagram illustrating a method for conducting electronic payment transactions according to the technology;

Figure 4 is a block diagram illustrating components or modules of a server system (transaction controller) used in the system of Figure 1;

Figure 5 is a schematic illustration of an alternative embodiment of a system according to the technology, in which multiple responders may respond to the same transaction initiation request;

Figure 6 is a swim-lane flow diagram illustrating enrolment of a transaction initiator or responder with a transaction controller according to the technology;