

CLAIMS:

1. A method comprising:
receiving, by a server computer, from a transaction processing entity storing a routing table, an authorization request message in connection with a transaction, the routing table comprising a plurality of static payment token issuer identifiers comprising a payment token issuer identifier and being used to route the authorization request message, each payment token issuer identifier being a static substitute for a real issuer identifier that identifies an issuer, the authorization request message comprising a payment token, wherein the payment token comprises a the payment token issuer identifier, wherein the payment token issuer identifier is a substitute for a real issuer identifier for an issuer and is static for the issuer;
determining, by the server computer, a real account identifier associated with the payment token;
generating, by the server computer, a modified authorization request message comprising the real account identifier; and
transmitting, by the server computer, the modified authorization request message to the issuer identified by the real issuer identifier for approval.
2. The method of claim 1, wherein the authorization request message is received by the server computer from a merchant computer.
3. The method of claim 1, wherein determining the real account identifier comprises searching a database for the real account identifier using the payment token.
4. The method of claim 1, further comprising:
receiving, by the server computer, an authorization response message from the issuer;
generating, by the server computer, a modified authorization response message comprising the payment token; and
transmitting the modified authorization response message to a merchant computer.
5. The method of claim 1, wherein the authorization request message further comprises a token requestor identifier and wherein the method further comprises:

validating, by the server computer, that the token requestor identifier is associated with the payment token.

6. The method of claim 1, wherein the authorization request message further comprises a token presentment mode indicator and wherein the method further comprises:

identifying, by the server computer, the token presentment mode indicator in the authorization request message, the token presentment mode indicator indicating a presentment mode of the payment token;

validating, by the server computer, that the payment token is associated with the ~~token~~ presentment mode, wherein the validating confirms that the presentment mode indicated by the token presentment mode indicator matches a previously stored presentment mode associated with the payment token; and

authenticating, by the server computer, the transaction based on the presentment mode indicated by the token presentment mode indicator.

7. The method of claim 1, wherein the modified authorization request message further comprises a token assurance level code and wherein the issuer uses the token assurance level code to determine whether to authorize the transaction.

8. The method of claim 1, wherein before receiving the authorization request message, the payment token is generated and provided to the server computer by ~~an account~~ the issuer.

9. The method of claim 7, wherein the token assurance level code indicates a level of confidence that the payment token was requested by an account holder of ~~the an~~ an underlying payment account associated with the real account identifier.

10. The method of claim 1, ~~further comprising:~~
~~updating a routing table file to include a plurality of payment token issuer identifiers, wherein each of the payment token issuer identifiers is associated with a plurality of real issuer identifiers for a plurality of issuers, wherein the routing table file identifies a~~ the server computer for processing the transaction associated with each of the plurality of the payment token issuer identifiers ~~identifier;~~ and
wherein the method further comprises:
updating the routing table to generate an updated routing table; and

sending the updated routing table file to the transaction processing entity including at least one of a merchant computer, an acquirer computer, and a payment service provider computer.

11. A server computer comprising a processor and a computer readable medium comprising code, executable by the processor, for implementing a method comprising:

receiving, from a transaction processing entity storing a routing table, an authorization request message in connection with a transaction, the routing table comprising a plurality of static payment token issuer identifiers comprising a payment token issuer identifier and being used to route the authorization request message, each payment token issuer identifier being a static substitute for a real issuer identifier that identifies an issuer, the authorization request message comprising a payment token, wherein the payment token comprises a the payment token issuer identifier, wherein the payment token issuer identifier is a substitute for a real issuer identifier for an issuer and is static for the issuer;

determining a real account identifier associated with the payment token;

generating a modified authorization request message comprising the real account identifier; and

transmitting the modified authorization request message to the issuer identified by the real issuer identifier for approval.

12. The server computer of claim 11, wherein the authorization request message is received by the server computer from a merchant computer.

13. The server computer of claim 11, wherein determining the real account identifier comprises searching a database for the real account identifier using the payment token.

14. The server computer of claim 11, the method further comprising:
receiving an authorization response message from the issuer;
generating a modified authorization response message comprising the payment token; and
transmitting the modified authorization response message to a merchant computer.

15. The server computer of claim 11, wherein the authorization request message further comprises a token requestor identifier and wherein the method further comprises:

validating that the token requestor identifier is associated with the payment token.

16. The server computer of claim 11, wherein the authorization request message further comprises a token presentment mode indicator and wherein the method further comprises:

identifying the token presentment mode indicator in the authorization request message, the token presentment mode indicator indicating a presentment mode of the payment token;

validating, by the server computer, that the payment token is associated with the token-presentment mode, wherein the validating confirms that the presentment mode indicated by the token presentment mode indicator matches a previously stored presentment mode associated with the payment token; and

authenticating the transaction based on the presentment mode indicated by the token presentment mode indicator.

17. The server computer of claim 11, wherein the modified authorization request message further comprises a token assurance level code and wherein the issuer uses the token assurance level code to determine whether to authorize the transaction.

18. The server computer of claim 11, wherein before receiving the authorization request message, the payment token is generated and provided to the server computer by ~~an account~~the issuer.

19. The server computer of claim 17, wherein the token assurance level code indicates a level of confidence that the payment token was requested by an account holder of ~~the~~an underlying payment account associated with the real account identifier.

20. The server computer of claim 11, wherein ~~the method further comprises:~~

~~updating a routing table file to include a plurality of payment token issuer identifiers, wherein each of the payment token issuer identifiers is associated with a plurality of real issuer identifiers for a plurality of issuers, wherein the routing table file identifies a~~the server computer for processing the transaction associated with each of the plurality of the payment token issuer identifiersidentifier; and

wherein the method further comprises:

updating the routing table to generate an updated routing table; and

sending the updated routing table ~~file~~ to the transaction processing entity including at least one of a merchant computer, an acquirer computer, and a payment service provider computer.

21. ~~A server computer for use in a payment processing system, the payment processing system comprising at least two entities operating at least two entity computers, where the at least two entities are capable of processing different parts of a single payment transaction, the server computer comprising:~~

~~a) — a processor;~~

~~b) — a computer readable medium comprising code, executable by the processor for implementing a method comprising:~~

~~receiving a first token request message from a first entity;~~

~~analyzing the first token request message;~~

~~determining that the first token request message includes a request for a token;~~

~~determining a first token;~~

~~transmitting the first token to the first entity;~~

~~receiving a second token request message from a second entity;~~

analyzing the second token request message;
determining that the second token request message includes a
token request associated with the first token;

determining token attributes associated with the first token; and
transmitting the determined token attributes to the second entity.

22. The server computer of claim 21, wherein the first entity and the second entity are different, and wherein the first entity and the second entity are selected from a group comprising: a mobile device, a mobile wallet, a merchant, an acquirer, an issuer, and a payment processing network.

23. The server computer of claim 21, wherein the token request associated with the first token includes at least one of a token validation request, a token management request, a token inquiry request, and a token exchange request.

24. The server computer of claim 21, wherein the first token request message comprises an account identifier, authentication data, and a token requestor identifier and the first token response message comprises a token and a token assurance level code.

25. The server computer of claim 23, wherein the token request includes the token validation request, wherein the second entity is a merchant, wherein the token validation request includes transaction data and the first token, and wherein determining the token attributes further comprises searching a token database for transaction restrictions associated with the first token, wherein the token attributes include the transaction restrictions.

26. The server computer of claim 23, wherein the second entity is a mobile device or a mobile wallet provider, wherein the token request includes the token exchange request, the token exchange request including the first token and a token requestor identifier, and wherein determining the token attributes further comprises searching a token database for an account identifier associated with the first token, validating the token requestor identifier is associated with the first token, and, wherein the token attributes include the transaction restrictions.

27. The server computer of claim 23, wherein the second entity is an issuer and wherein the token request includes the token management request, the token management request including the first token and including instructions to activate, de-activate, or update the first token, wherein the token attributes include a status of the first token.

~~28.—The server computer of claim 27, wherein the token management request includes instructions to update the first token, wherein the instructions to update the first token includes an updated real account identifier associated with the first token, and wherein the server computer updates a token record to include the real updated account identifier associated with the first token.~~

~~29.—The server computer of claim 23, wherein the token request includes the token inquiry request, wherein the token inquiry request includes an account identifier or the first token, and wherein determining the token attributes further comprises searching a token database for a token record associated with the received account identifier or the received first token, determining authorized information from the token record for the second entity, and wherein the token attributes include the authorized information from the token record.~~

~~30.—A system comprising:
the server computer of claim 21; and
a database coupled to the server computer, the database comprising a plurality of payment tokens.~~

~~31.—The system of claim 30, further comprising an issuer computer, an acquirer computer, and a merchant computer coupled to the server computer.~~

~~32.—A method comprising:
receiving, by a server computer, a first token request message from a first entity;
analyzing, by the server computer, the first token request message;
determining, by the server computer, that the first token request message includes a request for a token;
determining, by the server computer, a first token;
transmitting, by the server computer, the first token to the first entity;
receiving, by the server computer, a second token request message from a second entity;
analyzing, by the server computer, the second token request message;
determining, by the server computer, that the second token request message includes a token request associated with the first token;~~

determining, by the server computer, token attributes associated with the first token; and

transmitting, by the server computer, the determined token attributes to the second entity.

33.—The method claim 32, wherein the first entity and the second entity are different, and wherein the first entity and the second entity are selected from a group comprising: a mobile device, a mobile wallet, a merchant, an acquirer, an issuer, and a payment processing network.

34.—The method of claim 32, wherein the token request associated with the first token includes at least one of a token validation request, a token inquiry request, a token exchange request, and a token management request.

35.—The method of claim 32, wherein the first token request message comprises an account identifier, authentication data, and a token requestor identifier and the first token response message comprises a token and a token assurance level code.

36.—The method of claim 34, wherein the token request includes the token validation request, wherein the second entity is a merchant, wherein the token validation request includes transaction data and the first token, and wherein determining the token attributes further comprises searching a token database for transaction restrictions associated with the first token, wherein the token attributes include the transaction restrictions.

37.—The method of claim 34, wherein the second entity is a mobile device or a mobile wallet provider, wherein the token request includes the token exchange request, the token exchange request including the first token and a token requestor identifier, and wherein determining the token attributes further comprises searching a token database for an account identifier associated with the first token, validating the token requestor identifier is associated with the first token, and, wherein the token attributes include the transaction restrictions.

38.—The method of claim 34, wherein the second entity is an issuer and wherein the token request includes the token management request, the token management request including the first token and including instructions to activate,

~~de-activate, or update the first token, wherein the token attributes include a status of the first token.~~

~~39.—The method of claim 38, wherein the token management request includes instructions to update the first token, wherein the instructions to update the first token includes an updated real account identifier associated with the first token, and wherein the server computer updates a token record to include the real updated account identifier associated with the first token.~~

~~40.—The method of claim 34, wherein the token request includes the token inquiry request, wherein the token inquiry request includes an account identifier or the first token, and wherein determining the token attributes further comprises searching a token database for a token record associated with the received account identifier or the received first token, determining authorized information from the token record for the second entity, and wherein the token attributes include the authorized information from the token record.~~