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 the payment token issuer identifier;

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 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 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 an underlying payment account associated with the real account identifier.

10. The method of claim 1, wherein the routing table identifies the server computer for processing the transaction associated with the payment token issuer identifier;

wherein the method further comprises:

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

sending the updated routing table 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 the payment token issuer identifier;

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 that the payment token is associated with the 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 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 an underlying payment account associated with the real account identifier.

20. The server computer of claim 11, wherein the routing table identifies the server computer for processing the transaction associated with the payment token issuer identifier;

wherein the method further comprises:

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

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