WHAT IS CLAIMED IS:

1. A method comprising:

receiving, at a first computer, a credential from a user;

sending, by the first computer, a token request message including the credential to a second computer, the token request message being in the same format as an authorization request message used to authorize a transaction, wherein the token request message passes through an acquirer computer before the token request message is received by the second computer;

receiving, at the first computer, a token associated with the credential from the second computer;

generating, by the first computer, the authorization request message; and

submitting, by the first computer, the authorization request message including the token to an authorization computer for the transaction.

2. The method of claim 1, wherein the first computer is an access device.

3. The method of claim 1, wherein the token request message is formatted as an ISO 8583 message.

4. The method of claim 1, wherein the token is valid for 1 minute, 5 minutes, or 1 hour.

5. The method of claim 1, wherein the credential is encrypted.

6. The method of claim 1, wherein the credential is received by the first computer from a magnetic stripe card.

7. The method of claim 1, wherein the credential is received by the first computer from a mobile device.

8. The method of claim 7, wherein a mobile device identifier is also received from the mobile device, and wherein the token request message further includes the mobile device identifier.

9. The method of claim 7, further comprising:

sending, by the first computer, the token to the mobile device; and then

receiving, at the first computer, the token from the mobile device for use with the transaction.

10. A first computer comprising:

a processor; and

a computer readable medium, the computer readable medium comprising code, executable by the processor, for implementing a method comprising:

receiving a credential from a user;

sending a token request message including the credential to a second computer, the token request message being in the same format as an authorization request message used to authorize a transaction, wherein the token request message passes through an acquirer computer before the token request message is received by the second computer;

receiving a token associated with the credential from the second computer;

generating the authorization request message; and

submitting the authorization request message including the token to an authorization computer for the transaction.

11. The first computer of claim 10, wherein the first computer is an access device.

12. The first computer of claim 10, wherein the authorizing computer receives the authorization request message, obtains the credential associated with the

token, and authorizes the transaction based on an account associated with the credential.

13. The first computer of claim 10, wherein the first computer is a resource provider computer, and wherein the second computer is a token provider computer.

14. The first computer of claim 10, further comprising:

receiving an authorization response message indicating that the transaction is authorized; and

storing a transaction record including the token, and not including the credential.

15. The first computer of claim 10, wherein the credential is received from a magnetic stripe card.

16. The first computer of claim 10, wherein the credential is received from a mobile device.

17. The first computer of claim 16, wherein the credential received from the mobile device is received along with a request for a token.

18. The first computer of claim 16, further comprising:

sending the token to the mobile device; and then

receiving the token from the mobile device for use with the transaction.

19. The method of claim 1, wherein the token request message comprises an amount data field with a zero-dollar amount or no amount.

20. The method of claim 1, wherein the token request message includes a flag specifying that the token request message is a token request message.

21. The first computer of claim 10, wherein the token request message is formatted as an ISO 8583 message.