UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MICHAEL E. GRAVES, PETER E. FRANK,
THANE PLAMBECK, and GREGORY R. WHITEHEAD

Appeal 2007-1091
Application 09/818,084
Technology Center 3600

Decided: March 25, 2008

Before MURRIEL E. CRAWFORD, HUBERT C. LORIN, and ANTON W. FETTING, *Administrative Patent Judges*.

CRAWFORD, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 (2002) from a final rejection of claims 35 to 55. Claims 1 to 34 have been cancelled. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

Appellants invented a method of authenticating a payment transaction over a network including the step of sending a challenge request to the buyer

over the network, the challenge request including a summary of the payment transaction to be displayed to the buyer (Specification 1).

Claim 35 under appeal reads as follows:

> 35. A method for authenticating a payment transaction over a network, comprising:
>
> storing a public key associated with a public key infrastructure (PKI) key pair in a profile database;
>
> in response to receiving an authentication request from a buyer over a network, the authentication request including a description of the payment transaction and an identity of a seller, sending a challenge request to the buyer over the network, the challenge request including a summary of the payment transaction to be displayed to the buyer and then digitally signed by the buyer using a private key associated with the PKI key pair;
>
> in response to receiving a challenge response from the buyer over the network, the challenge response including the digitally signed summary of the payment transaction, determining whether the buyer has access to the private key by using the public key to decrypt the digitally signed summary of the payment transaction;
>
> if so determined, storing a digitally signed record of the payment transaction in a traction archive; and
>
> sending an authentication response to the seller over the network.

The Examiner rejected claims 35, 37 to 42, 44 to 49, and 51 to 55 under 35 U.S.C. § 103(a) as being unpatentable over Gifford in view of Bishop and Shwartz.

The Examiner rejected claims 36, 43, and 50 under 35 U.S.C. § 103(a) as being unpatentable over Gifford in view of Bishop, Shwartz, and Baltzley.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Gifford	US 6,205,437 B1	Mar. 20, 2001
Baltzley	US 2001/0014158 A1	Aug. 16, 2001
Shwartz	US 2001/0044787 A1	Nov. 22, 2001
Bishop	US 2004/0243520 A1	Dec. 2, 2004

Appellants contend that there is no motivation to modify the Gifford method so as to include the step of sending a challenge request to the buyer over the network, the challenge request including a summary of the payment transaction to be displayed to the buyer because (1) such a modification would make the procedure of Gifford more complicated and (2) Gifford already discloses that nonces are used to protect against replay attacks.

Appellants also contend that the applied references do not disclose or suggest that the challenge request includes a summary of the payment transaction to be displayed to the buyer.

ISSUES

The first issue is whether the Appellants have shown that the Examiner erred holding that there is a reason to modify the Gifford method so as to use the challenge request method taught by Bishop and Schwartz.

The second issue is whether the Appellants have shown that the Examiner erred in finding that the prior art references discloses a challenge request which includes a summary of the payment transaction and is displayed to the buyer.

FINDINGS OF FACT

Gifford discloses a method of authenticating a payment transaction over a network in which the payment order is checked for replay by making sure the sender did not previously present a payment order with the same

nonce. This is done by checking an index of committed payment orders by nonce in a settlement database (col. 8, ll. 52 to 58).

Bishop discloses a method for authenticating a payment transaction over a network in which a challenge request to the buyer is sent over the network to the buyer's browser (paragraph 0094 to 0095). The challenge request is sent to the browser of the user as a signature request message which is signed by a smartcard. Bishop discloses that the challenge request is digitally signed using a private key and that it is determined whether the buyer has access to the private key using a public key (paragraph 0094 to 0095).

Shwartz discloses a method of authenticating a payment transaction over a network in which a challenge request to a buyer is sent over the network which requires an answer by the buyer (paragraph 0182). The challenge is presented along with a request for approval of the transaction (paragraph 0183). The buyer then answers the challenge and approves the transaction (paragraph 0184).

ANALYSIS

We are not persuaded of error on the part of the Examiner by Appellants' argument that a person of ordinary skill in the art would not modify the Gifford method so as to include the challenge request step disclosed in Bishop because such a substitution would render the Gifford method more complicated. Gifford and Bishop disclose a method for authenticating a payment transaction in which replay is prevented. Gifford uses nonces and Bishop uses challenges. The modification of the Gifford method so as to include a challenge request amounts to no more than

substituting one step for preventing replay for another step for preventing replay to achieve a predictable result. Where as here, an application claims a method already known in the prior art that is altered by the mere substitution of one step for another step known in the field, the combination must do more than yield a predictable result. *See KSR Int'l Co. v. Teleflex Inc.,*127 S.Ct. 1727, 1740 (2007) (citing *United States v. Adams*, 383 U.S. 39, 50-51 (1966). In that regard, there is no evidence that replacing Gifford's method for preventing replay with Bishop's step of preventing replay yields an unexpected result or was beyond the skill of one having ordinary skill in the art.

We are also not persuaded by the Appellants' argument that the prior art references do not disclose or suggest a challenge request that includes a summary of the payment transaction which is displayed to the buyer. Schwarz discloses that the challenge request is sent along with a request for approval to the buyer. This challenge request is clearly displayed to the buyer so that the buyer can answer the challenge request. In addition, as the buyer is asked to approve the transaction, some summary of the transaction must be displayed to the buyer.

In view of the foregoing, we will sustain the Examiner's rejection of claim 35 under 35 U.S.C. § 103 as being unpatentable over Gifford in view of Bishop and Shwartz. We will also sustain this rejection as it is directed to claims 37 to 42, 44 to 49, and 51 to 55 because Appellants have not argued the separate patentability of these claims.

We will also sustain the rejection of claims 36, 43, and 50 under 35 U.S.C. § 103 as being unpatentable over Gifford in view of Bishop and

Baltzley because the Appellants make no specific arguments regarding this rejection but rather relies on the arguments made above.

The decision of the Examiner is AFFIRMED.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED

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