

No. 2006-1503

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

BMC Resources, Inc.,

Plaintiff-Appellant,

v.

Paymentech, L.P.,

Defendant-Appellee.

**Appeal from the United States District Court for the Northern District
of Texas in Case No. 3:03-CV-1927-M, Judge Barbara M.G. Lynn**

**NON-CONFIDENTIAL
BRIEF OF PLAINTIFF-APPELLANT BMC RESOURCES, INC.**

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CERTIFICATE OF INTEREST

Counsel for the Appellant, BMC Resources, Inc. certifies the following:

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2. The name of the real parties in interest (if the party named in the caption above is not the real party in interest) represented by me are:

N/A

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are:

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MISCELLANEOUS

2A N. Singer, Statutes and Statutory Construction §46.06, pp.181-186 (rev.
6th ed. 2000) 33

STATEMENT OF RELATED CASES

1. No other appeal in or from the same civil action or proceeding in the district court was previously before this or any other appellate court.
2. Counsel for Plaintiff-Appellant is aware of no other cases involving the same parties that are currently pending.

I. Statement of Jurisdiction

The District Court had subject matter jurisdiction over this patent infringement action under 28 U.S.C. §§1331, 1338(a).

This Court has subject matter jurisdiction over this appeal under 28 U.S.C. §1295(a)(1). BMC Resources, Inc. (“BMC”) appeals from the Amended Judgment of the District Court entered on June 19, 2006. BMC timely filed a notice of appeal from this judgment on June 30, 2006.

The Amended Judgment is a final judgment. It disposed of BMC’s patent infringement claims and dismissed the counterclaims of Paymentech, L.P (“Paymentech”) without prejudice.

II. Statement of the Issues

This appeal presents three issues. All are questions of law which this Court reviews *de novo*:

1. Did the District Court err by adopting and applying an incorrect legal standard for joint infringement in determining that Paymentech was not liable for directly infringing BMC's patents?

2. Did the District Court err by concluding that BMC failed to present sufficient evidence to create a genuine issue of material fact as to whether Paymentech directly infringed BMC's patents?

3. Did the District Court err by granting summary judgment of non-infringement in view of the evidence that Paymentech induced its merchant customers to directly infringe?

III. Statement of the Case

This patent infringement action concerns the legal standard for joint infringement when the participation and combined actions of more than one entity result in infringement of a patented method.

BMC processes electronic financial transactions. BMC has asserted two patents, US 5,870,456 ('456 Patent) and US 5,715,298 ('298 Patent), against Paymentech. A46-79. BMC's patents claim a method of paying bills electronically in real-time over a touch tone telephone using an ATM debit card without having to enter a Personal Identification Number ("PIN"). *Id.* Before this invention, a PIN was required when using an ATM card to protect against fraud. A3294,A3057,A3452-53.

The BMC invention made it possible to pay bills electronically in real-time over an ATM debit network using any telephone without specialized hardware and without entering a PIN while maintaining the transaction security. A3-4,A56(2:45-60)¹,A58(6:3-10),A73(2:45-60),A75(6:3-10). This is known as PINless debit bill payment ("PDBP" or "PINless").

The patents disclose, and business realities dictate, that the invention is performed by the combined actions of several participants over a distributed computer network. A46-79. The bill payment method is initiated by calling an

¹ This brief uses "2:45-60" as a convention to refer to the column and line numbers of the cited patent.

interactive voice recognition (IVR) unit. A57(4:21-26),A58(6:33-34),A74(4:24-28),A75(6:33-34). The IVR prompts the caller to enter transaction-related information, including an ATM debit card number. A57(4:25-29),A59(7:15-17),A74(4:24-28)A76(7:15-17). The information is transmitted to the merchant's agent, who then forwards it to a selected ATM debit network and on to the financial institution that issued the card. A57(4:34-42),A59(8:35-51),A74(4:34-42),A76(8:35-51). The transaction is completed in real-time while the consumer is on the phone. A57(4:25-54),A74(4:25-54).

Paymentech is a direct competitor of BMC. A3058,A4040. [

]

Like BMC's patents, Paymentech's infringing PDBP transactions are processed by the combined actions of several participants over a distributed computer network. A1280. [

I

This action began when Paymentech sued BMC claiming three BMC patents were invalid and not infringed. A3946-47,A3058. BMC moved to dismiss the action because the parties were engaged in license negotiations. A3935-47. Concurrently, BMC counterclaimed for infringement of the '456 Patent. A4011. BMC's motion was granted, and Paymentech's complaint was dismissed without prejudice. *Id.* The Court realigned the parties to make BMC the plaintiff. *Id.*

Paymentech answered and brought counterclaims seeking to re-introduce an unasserted BMC patent. The Court granted BMC's motion to dismiss the unasserted BMC patent. *See BMC Resources, Inc. v. Paymentech, L.P.*, 2004 WL 981079 (N.D. Tex. 2004) and 2004 WL 1196119 (N.D. Tex. 2004).

The parties proceeded with discovery. The Court construed disputed claim terms. *See BMC Resources, Inc. v. Paymentech, L.P.*, 2004 WL 2534240 (N.D. Tex. 2004) and 2004 WL 2871351 (N.D. Tex. 2004). BMC was forced to file a motion to compel because Paymentech refused to provide third-party information, and continued to withhold information as privileged after producing a legal opinion on infringement that was authored by its litigation counsel. A42. The Magistrate Judge denied this motion without prejudice pending the outcome of the parties' summary judgment motions. *Id.*

BMC also informed the Magistrate Judge that it intended to amend the complaint because the asserted patents had reissued. A3891,A3860. The '298 Patent reissued as RE38,715E, and the '456 Patent reissued as RE38,801. A3860. The claims of these reissue patents are identical to the claims of the original patents. The Magistrate Judge instructed BMC not to amend until the summary judgment motions were decided. A3891.

The parties filed cross-motions for summary judgment on infringement and validity. A80-137,A2508-12. The Magistrate Judge recommended granting Paymentech's motion for summary judgment of no infringement. A18-30.

After BMC objected to the Magistrate Judge's recommendation, this Court issued *On Demand Machine Corp. v. Ingram Indus., Inc.*, 442 F.3d 1331, 1344-45 (Fed. Cir. 2006). BMC promptly brought *On Demand* to the District Court's

attention. A3894-3897. The District Court dismissed *On Demand* as dictum in a footnote (A8,n.3), accepted the Magistrate Judge's recommendation, and granted Paymentech's motion for summary judgment on infringement. A1-17.

After the parties jointly moved to amend the judgment to dismiss Paymentech's counterclaims, BMC timely appealed. A45.

IV. Statement of the Facts

A. BMC And The Patented Invention

BMC, formerly known as TelePay, is the assignee of the '298 and '456 Patents. A4100. BMC processes millions of electronic transactions per year and makes millions of dollars in revenue. For example, [

I

The invention claimed in these patents generally involves a real-time method of paying bills electronically over a phone using an ATM debit card without entering a PIN:

The crux of this invention is that bill payment transactions have never been presented to the debit networks for a real-time authorization initiated by the consumer from a touch tone telephone with the debit card number used as the transaction vehicle. Additionally, this process has never been done without the requirement of a PIN (personal identification number) and still maintain an assemblage of transaction security.

A60(10:30-37),A77(10:30-37).

BMC's patents disclose that PDBP is performed by the combined action of several participants, including the payee's agent (*e.g.*, BMC, TelePay or Paymentech), a remote payment network (*e.g.*, real-time ATM network), and the card-issuing financial institution:

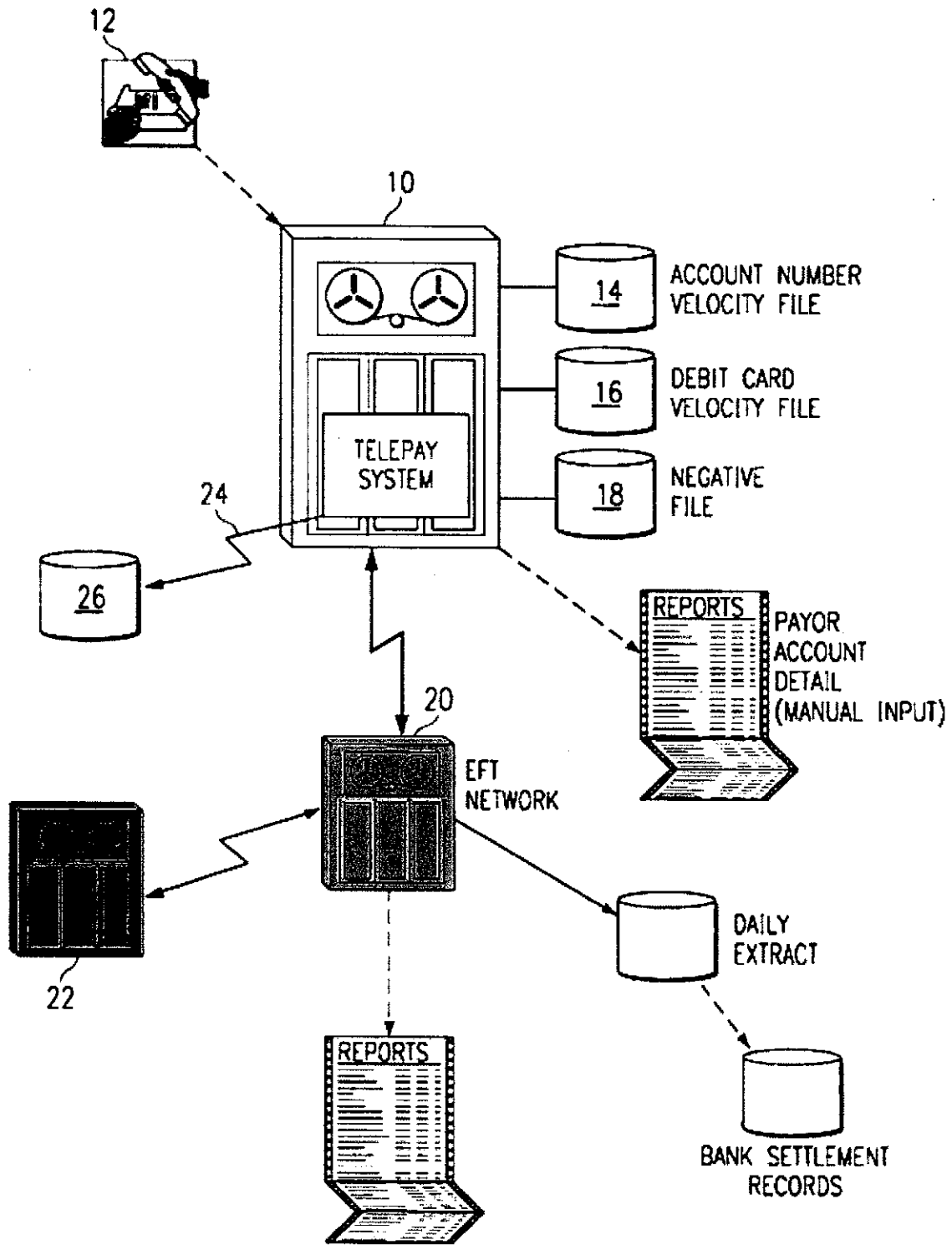


Fig. 1

A47 and 64 (color added).

The patented method is initiated when a customer 12 (red) calls an IVR to pay a bill. A57(4:21-26),A58(6:33-34),A74(4:21-26),A75(6:33-34). The IVR prompts the caller to enter specific transaction-related information including a payment number (e.g., ATM debit card number), and a payment amount (amount to be paid). A57(4:25-29),A74(4:25-29).

A payee's agent's system 10 (e.g., TelePay, shown in yellow) receives this transaction information and forwards it to an ATM debit card network 20 (green) for further transmission to the card-issuing financial institution 22 (blue) for verification of funds on deposit. A57(4:34-42),A74(4:34-42),A76(8:35-51).

If sufficient funds are available, the debit card account is charged, and an account associated with the merchant (e.g., Verizon) is credited. A57(4:42-54),A74(4:42-54). If not, the transaction is declined. A59(8:60-64),A76(8:60-64). The transaction information is stored by the payee's agent. A60(9:7-16),A77(9:7-16). The caller is informed of the result of the transaction while still on the phone. A60(9:2-16),A77(9:2-16).

The asserted '456 Patent claims 6 and 7 state:

6. A method of paying bills using a telecommunications network line connectable to at least one remote payment card network via a payee's agent's system, wherein a caller begins session using a telecommunications network line to initiate a spontaneous payment transaction to a payee, the method comprising the steps of:

prompting the caller to enter a payment number selected from one or more choices of credit or debit forms of payment;

prompting the caller to enter a payment amount for the payment transaction;

accessing a remote payment network associated with the entered payment number,

the accessed remote payment network determining, during the session, whether sufficient available credit or funds exist in an account associated with the payment number to complete the payment transaction,

and upon a determination that sufficient available credit or funds exist in the associated account,

charging the entered payment amount against the account associated with the entered payment number,

adding the entered payment amount to an account associated with the entered account number, and

storing the account number, payment number and payment amount in a transaction file of the system.

7. The method of claim 6 wherein said payment number is a PIN-less credit or debit card number. A61-62.

Asserted claim 2 of the '298 Patent includes elements that correspond to those in '456 Patent claim 7 plus additional limitations. A78. Claim 2 adds steps of prompting the caller to enter an account number, determining whether the entered account number and entered debit card number are valid, and informing the caller that the transaction was approved or declined. A78.

B. BMC Pioneered Real-Time Electronic Bill Payment.

Before BMC's patented invention, PINless ATM debit transactions did not exist in any form. A3052,A3294,A3401. ATM debit was (and still is) the only real-time form of electronic payment available. A2989,A2992,A3294. ATM network transactions allow immediate access to and withdrawal of funds from a debit cardholder's account:

[A] PIN debit transaction is a single message transaction where cardholders authenticate themselves using their PIN. With single message processing, one transaction conveys sufficient detail for authorization, clearing and withdrawal of funds from the cardholder's account to occur simultaneously in real-time at the time of the transaction.

A2983,A3375,A1712,A3052,A3294,A3373-74,A3401,A3425-26. For example, if you go to an ATM cash machine and withdraw \$100, that amount will be immediately debited and withdrawn from your account. A606-07,A979.

The ATM networks require a PIN to protect the cardholder's account against fraud. A3294,A3057,A3452-53. The PIN requirement was a primary motivation to convince consumers and industry participants that ATM debit cards were safe and secure. A3452-53. Since their inception, ATM debit cards have been promoted as safe and secure because of the PIN requirement. A3057.

Specialized PIN encryption hardware was "a rule of every major EFT network." A2984. This requirement had "two key implications." A2984. It made the "level of fraud and consumer chargebacks on PIN debit" significantly lower.

A2984,A3392. But it also precluded the use of PIN debit over a standard telephone “where a consumer cannot enter their PIN directly into a hardware encryption device.” A2984.

Existing IVR bill payment processing that allowed ATM debit cards also required a PIN. A56(1:64–2:17;2:34–40),A73(1:64–2:17,2:34–40),A3401,A3453-54. Specialized PIN encryption hardware precluded the payment of bills over a standard telephone. A56(1:64–2:6),A73(1:64–2:6),A3287-88,A3056. There was a “natural resistance” to the purchase of special telephones that proved to be relatively expensive, in addition to the monthly fees necessary to remain a customer of this type of service. A56(2:14-17),A73(2:14-17),A3263.

Other available forms of IVR electronic bill payment — credit card, signature debit card and electronic check — did not occur in real-time. Credit card and signature debit transactions were (and still are) processed through credit card networks, such as VISA, MasterCard, American Express and Discover. A3369-70,A2989. These transactions are “dual message” transactions because they require two messages to complete. A3369-70,A3373-74,A3380-81. Dual message transactions do not afford direct access to the cardholder’s account. *Id.* The first message is an authorization that places a hold on funds but does not transfer any funds. A2982,A3380-81. The second message is sent later and does not happen in

real-time. A3447-48,A3376,A3380-81. If the second message is not sent, the transaction is not completed and the hold on the funds is released. A3380-81.

Electronic checks were processed like paper checks, through the Automated Clearing House (ACH). A56(1:20-63),A73(1:20-63),A2986-87. It typically took 3-5 days before funds were actually transferred. *Id.* If sufficient funds were not available at the time of the transfer, the payment could “bounce” and be returned for non-sufficient funds (NSF). *Id.*

A real-time bill payment method that uses ATM debit cards without the requirement of a PIN over any touch tone telephone was needed. A56(2:45-52),A73(2:45-52). In a “departure from the art,” TelePay invented a truly universal bill payment method that allowed for bills to be paid in real-time through the ATM networks over any telephone without using a PIN. A3-4,A56(2:57-60),A73(2:57-60). Like PIN-based transactions, these “PINless” transactions use ATM networks for direct real-time access to the card-issuing financial institution and the cardholder’s account. A57(3:32-44),A74(3:32-44). But unlike PIN-based transactions, no PIN is required. A57(3:45-50),A58(6:3-10),A74(3:45-50),A75(6:3-10). Paymentech’s expert agreed that it was a “major deviation” to shift from a PIN to a PINless transaction. A3454.

TelePay’s novel bill payment method eliminated the possibility that a bill payment would be bounced due to NSF. A57(3:39-44),A74(3:39-44). The ATM

networks were used instead of the ACH or credit card networks. A57(3:32-38),A74(3:32-38). The payment amount would be deducted in real-time, instead of by some later transfer when sufficient funds may not be available in the account. *Id.*,A56(1:36-63),A73(1:37-63).

PDBP also eliminated the need for PIN encryption hardware that prevented real-time bill payment over a standard telephone. No special equipment to encrypt the PIN was required because no PIN was required. A57(3:45-60),A3056-57. Bill payments could now be made conveniently through any telephone with “anywhere, anyplace, anytime” spontaneity. A57(4:2-5),A58(6:3-10),A74(4:2-5),A75(6:3-10).

TelePay created and developed the market for PDBP. In 1994, TelePay first offered to process PDBP transactions through the PULSE network. A3057,A3052. PULSE initially rejected the proposal as “inconceivable.” *Id.* TelePay persisted, and PULSE approved a pilot program in 1995, but only if merchants agreed to be responsible for any fraudulent transactions. A3407-08,A2989. TelePay became the first to successfully process PDBP transactions. A3057,A3407-08. Significantly, no instances of fraud were reported. A3057.

Thanks to BMC, PDBP is now recognized as a safe and secure bill payment method that is used by utilities, telecommunication, insurance and financial companies, and government entities. A3057.

C. Paymentech

Like BMC, Paymentech processes electronic financial transactions for a fee.

A4,A1275-76,A1337-38,A1342-43. [

]

1. *Paymentech Initiated, Arranged and Coordinated PDBP Set-Up.*

Before Paymentech could process PDBP transactions, it had to make extensive modifications to its computer systems. [

]

This development effort also involved extensive work with the ATM networks. [

]

3. *Paymentech Processing of PDBP*

[

I

D. The Dispute

In January 2003, BMC approached Paymentech to discuss the possibility of working together on PINless debit. A4101. BMC provided copies of its patents to Paymentech. A3945,¶7. Paymentech asked BMC for a license proposal. A4102. In August, Paymentech made a counterproposal. *Id.*

On August 25, 2003, BMC informed Paymentech that it would need additional time to respond to Paymentech's counterproposal. *Id.* The next day, Paymentech filed a declaratory judgment action asserting non-infringement of the '456 Patent, the '298 Patent, and US 5,652,786 ('786 Patent). A4103. [

I

BMC moved to dismiss because it was engaged in ongoing license negotiations with Paymentech. A3935-47,A4101-10. Concurrently, BMC counterclaimed for infringement of the '456 Patent. A4011. BMC's motion was granted. A4011. The Court realigned the parties to make BMC the plaintiff. *Id.*

BMC amended its complaint to add the '298 Patent. A5,A4097-99. Paymentech brought counterclaims seeking to re-introduce the '786 Patent even though it had already been dismissed from the case. The Court granted BMC's (second) motion to dismiss the '786 Patent. *See BMC Resources, Inc. v. Paymentech, L.P.*, 2004 WL 981079 (N.D. Tex. 2004) and 2004 WL 1196119 (N.D. Tex. 2004).

E. Summary Judgment Decision

BMC moved for summary judgment on infringement and on Paymentech's invalidity claims. A80-137. Paymentech cross-moved for non-infringement and invalidity. A2508-2512. The motions were referred to the Magistrate Judge.

The Magistrate Judge recommended granting Paymentech's motion for no infringement. A18-30. The issues of inducement and validity were not addressed. *Id.* The recommendation observed that "courts appear to require" that "the party accused of infringement directs or controls the actions of the other party" to establish joint infringement. A24,A27. It then concluded that BMC had adduced sufficient evidence that Paymentech directed or controlled the merchant customer

activities, but not the selected ATM network and card-issuing financial institution. A26-28.

BMC objected to the Magistrate Judge's recommendation. A3591-3621. This Court then issued *On Demand*, its first opinion addressing the issue of joint infringement. BMC promptly brought *On Demand* to the Court's attention. A3894-97.

The District Court granted Paymentech's motion for summary judgment of no infringement. A3-16. Dismissing *On Demand* as *dictum* (A8,n.3), the District Court held that BMC must prove that "the party accused of infringement directs or controls the actions of the other entity or entities performing the steps of the process patent." A15.

The District Court concluded that BMC's evidence was insufficient to show that Paymentech directs or controls the selected ATM network and financial institution. A12-14. It reached this conclusion despite finding that BMC's evidence "shows that Paymentech transmits to the debit networks the debit card number, the "name" (presumably the account holder), the amount of the purchase, what bill was being paid, a field that states that 'there's going to be no PIN here,' and other data characteristics." A13.

After the parties jointly moved to amend the judgment to dismiss Paymentech's counterclaims, BMC timely appealed. A3916-17.

V. Summary of Argument

Although joint infringement has been the subject of over 16 reported district court opinions and 10 since 1982, joint infringement was not addressed in an opinion of this Court until last spring in *On Demand*, 442 F.3d at 1344-45. In *On Demand*, this Court discerned “no flaw” in the following jury instruction “as a statement of law” of joint infringement:

It is not necessary for the acts that constitute infringement to be performed by one person or entity. When infringement results from the participation and combined action(s) of more than one person or entity, they are all joint infringers and jointly liable for patent infringement. Infringement of a patented process cannot be avoided by having another perform one step of the process or method. Where the infringement is the result of the participation and combined action(s) of one or more persons or entities, they are joint infringers and are jointly liable for the infringement.

Id. at 1344-45.

Under *On Demand*, the direct or control standard applied by the District Court is immaterial because all participants whose “participation and combined actions” result in infringement are joint infringers and jointly liable. 442 F.3d at 1344-45. That includes both persons who have someone perform one or more steps as well as the person who performed the step(s).

The *On Demand* approach is consistent with the text of §271(a) and the treatment of joint infringement in prior district court decisions. By contrast, a “direct” or “control” approach would legalize many activities proscribed by these

prior decisions. It would also make method patents — particularly those that disclose a method performed by several participants — easy to circumvent, which is contrary to the patent law policy of affording a meaningful right to exclude in exchange for public disclosure.

The Magistrate Judge initially adopted a “direct” or “control” standard before *On Demand* was decided based on what “courts appear to require.” A18-30. When *On Demand* issued, all summary judgment papers were filed and awaiting the District Court’s decision. Supplemental briefs were filed to bring *On Demand* to the Court’s attention.

The District Court did not follow *On Demand*. Instead, it dismissed *On Demand* as “dictum” in a footnote (A8,n.3) and followed the Magistrate’s earlier “direct” or “control” standard. The Court erred by adopting “direct” or “control” as the standard, and its failure to analyze *On Demand* led to that error. The failure to apply *On Demand* alone warrants *vacatur* of summary judgment.

The District Court also erred by improperly assessing the record evidence. Had the Court properly analyzed the evidence, it should have found, at the very least, that a genuine issue of material fact exists under either the *On Demand* standard or the erroneous “direct” or “control” standard. Under *On Demand*, the Court should have found infringement as a matter of law.

The evidence shows that Paymentech [

]

Each time Paymentech processes a PDBP transaction for Verizon, infringement of BMC's patents result from the "participation and combined actions" of Paymentech, Verizon, a selected ATM network, and the card-issuing financial institution. All of the "prompting," "accessing," "determining," "validating," "charging," "adding," "storing," and "informing" steps in both '456 Patent claim 7 and '298 Patent claim 2 are performed. *See* Part VI.C.1.c. Under *On Demand*, Paymentech is jointly liable as a direct infringer.

The evidence also shows that Paymentech "directs" or "controls" the selected ATM network and card-issuing financial institution. *See* Part VI.C.3. BMC's expert testified that Paymentech "directs" the entire PDBP transaction

flow. Paymentech promotional materials state that Paymentech forwards the transaction to the card-issuing financial institution via a selected ATM network.

A13,A1376.

Paymentech also “directs” and “controls” the ATM network and card-issuing financial institution through its transaction data message. *See* Part VI.C.3.

During every PDBP transaction, [

]

Under any joint infringement standard, it is appropriate to hold Paymentech liable as a direct infringer. [

]

Paymentech has also induced infringement by its merchant customers, [

] Each of these activities alone establishes inducement.

And whatever concerns might be raised about joint infringement reaching truly unrelated and independent conduct by separate actors, this is not such a case. Paymentech, its merchant customers, ATM networks and card-issuing financial institutions coordinate and engage in concerted action to achieve the very result that infringes BMC's patents.

VI. Argument

A. **The Standard of Review**

All appeal issues receive *de novo* review. “Joint Infringement” under 35 U.S.C. §271(a) is a question of statutory construction which receives *de novo* review. *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1314-16 (Fed. Cir. 2005) (“*RIM*”).

Summary judgment of no infringement is reviewed *de novo* to ascertain whether genuine issues of material fact exist. *Wilson Sporting Goods Co. v. Hillerich & Bradsby Co.*, 442 F.3d 1322, 1326 (Fed. Cir. 2006); *Applied Med. Res. Corp. v. United States Surgical Corp.*, 448 F.3d 1324, 1331 (Fed. Cir. 2006).

The summary judgment evidence is assessed to determine whether “a reasonable jury could return a verdict for the non-movant.” *Applied Med.*, 448 F.3d at 1331. In assessing the evidence, all reasonable inferences are drawn in favor of BMC, the non-movant. *Id.*

B. **Joint Infringement May be Shown By Participation and Combined Action; “Direction” or “Control” Is Not Required.**

The District Court concluded that a “Plaintiff must prove that the party [Paymentech] accused of infringement directs or controls the actions of the other entity or entities performing the steps of the process patent.” A15. This conclusion is contrary to the *On Demand* standard, the patent statute, patent law policy, and the great weight of prior district court decisions.

Application of the wrong legal standard is by itself reason that summary judgment should be vacated and remanded. *See, e.g., Lacks Indus. v. McKechnie Vehicle Components USA, Inc.*, 322 F.3d 1335, 1347-1348 (Fed. Cir. 2003) (vacating district court’s summary judgment of invalidity because incorrect legal standard was applied as to whether there was a “commercial offer for sale” under §102(b)).

1. On Demand Requires Participation and Combined Action, Not “Direction” or “Control.”

Earlier this year, this Court issued its first decision that addressed joint infringement. *On Demand*, 442 F.3d at 1344-45. In *On Demand*, the District Court instructed the jury on joint infringement, and the jury found that Defendants Amazon.com and Lightning Source had infringed. *Id.* at 1336, 1344-45. On appeal, *On Demand* argued that the infringement finding should be upheld because “the jury could reasonably have found that Lightning Source and Amazon were liable for joint infringement.” *Id.* at 1344. Thus, this Court was squarely presented with the question of liability for joint infringement.

First, this Court recognized joint infringement as a basis for proving direct infringement. This Court analyzed the District Court’s jury instruction (quoted at p. 23) and concluded that this instruction contained “no flaw” as a statement of the law: “*We discern no flaw in this instruction as a statement of law.*” *On Demand*, 442 F.3d at 1344-45 (emphasis added).

This Court’s “no flaw” conclusion acts as an approval of the *On Demand* jury instruction as a statement of the law of joint infringement. *See, e.g., United States Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1564 (Fed. Cir. 1997); *Brooktree Corp. v. Advanced Micro Devices, Inc.*, 977 F.2d, 1555, 1570 (Fed. Cir. 1992). Thus, this Court confirmed that joint infringement is a viable legal basis for proving direct infringement under §271(a), where “the participation and combined actions of one or more entities” result in infringement. *On Demand*, 442 F.3d at 1345.

On Demand confirms that joint infringement may be established regardless of whether one participant “directs” or “controls” the others. Liability is imposed on each participant equally and indiscriminately — “they are joint infringers and jointly liable for patent infringement.” 442 F.3d at 1345. Liability attaches to each participant when an infringement results from “the participation and combined action(s) of more than one persons or entities.” *Id.* The participant who performs one step for another participant is also jointly liable even though such participant would not have directed or controlled anyone.

On Demand cannot be dismissed as *dictum* as the District Court did at Paymentech’s urging. A8,n.3. The portions of an opinion that “include the final disposition of a case as well as preceding determinations ‘necessary to that result’” are holdings, not *dicta*. *Tyler v. Cain*, 533 U.S. 656, 663 n.4 (2001). The

conclusion that there was “no flaw” in the jury instruction is clearly a preceding determination that was necessary to the result this Court reached on joint infringement.

This Court resolved joint infringement by first deciding that the joint infringement jury instruction contained no flaw. *On Demand*, 442 F.3d at 1344-45. Next, the Court determined whether the defendants combined to infringe, *i.e.*, performed all the steps. *Id.* at 1345. The first determination was necessary for this Court to address the evidence of joint infringement. If joint infringement was not a viable legal theory, then there was no reason to evaluate the evidence. Whether this Court could have sidestepped joint infringement is of no moment. The holding must be based on what this Court actually did, not what it might have done.

Moreover, this Court must have intended *On Demand* to be followed. Less than five months before *On Demand*, this Court recognized that it had not previously addressed the issue of joint infringement. *Freedom Wireless, Inc. v. Boston Communications Group, Inc.*, Nos. 06-1020,-1078,-1079,-1098,-1099 (Fed. Cir. December 15, 2005) (non-precedential order).² This Court would not have issued a decision addressing a recognized issue of first impression unless it was intended to be followed as part of this Court’s charge to promote uniformity in

² BMC cites this Order not as precedent of this Court, but because it provides salient historical facts concerning this Court’s treatment of the joint infringement issue.

the patent law. See *Manildra Milling Corp. v. Ogilvie Mills, Inc.*, 76 F.3d 1178, 1181; *Midwest Industries, Inc. v. Karavan Trailers, Inc.*, 175 F.3d 1356, 1359 (Fed. Cir. 1999).

2. Section 271(a) Covers Joint Infringement

A statutory construction of direct infringement under §271(a) makes clear that joint infringement is covered. Section 271(a) states:

Except as otherwise provided in this title, **whoever** without authority makes, **uses**, offers to sell, or sells any patented invention, within the United States or imports into the United States **any patented invention** during the term of the patent therefor, **infringes the patent**. (emphasis added)

The operative statutory language to consider for joint infringement is “whoever...uses...any patented invention...infringes the patent.”

The “words of a statute [are given] their ‘ordinary, contemporary, common meaning,’ absent an indication Congress intended them to bear some different import.” *Bayer AG v. Housey Pharmaceuticals, Inc.*, 340 F.3d 1367, 1371 (Fed. Cir. 2003) (quoting *Williams v. Taylor*, 529 U.S. 420, 431 (2000) (Construing §271(g)); *RIM*, 418 F.3d at 1317-18 (Construing §271(a)).

“Dictionaries of the English language provide the ordinary meaning of words used in statutes.” *Bayer*, 340 F.3d at 1371. The dictionary definition of “whoever” is plural and means “[w]hatever person *or persons*.” A2436 (emphasis added). Using the ordinary meaning of “whoever,” a patent is directly infringed by

any single entity (“person”) who uses a patented invention, or by any group of “persons” who together use a patented invention. Thus, the common, ordinary meaning of “whoever” shows that §271(a) encompasses several participants who combine to use a patented invention, just as this Court concluded in *On Demand*.

By contrast, this plain language of §271(a) does not state, much less require, any “direction” or “control.” It simply provides that any person or persons who use a patented invention infringe the patent. Nothing in the plain, ordinary meaning of this language imposes any additional requirement that a person “direct” or “control” the other participant to be a direct infringer.

Paymentech has acknowledged that “whoever” is plural, but has claimed that this plural meaning suggests only that §271(a) reaches the situation where each individual of a group of persons performs all of the steps of the patented method. A2467, n.42. Paymentech’s construction contravenes the principle that “[a] statute should be construed so that effect is given to all its provisions, so that no part will be inoperable or superfluous, void or insignificant.” *Hibbs v. Winn*, 542 US 88, 101 (2004) (citing and quoting 2A N. Singer, *Statutes and Statutory Construction* §46.06, pp.181-186 (rev. 6th ed. 2000)); *Cooper Indus, Inc. v. Aviall Serv., Inc.*, 543 U.S. 157, 166-67 (2004). Under Paymentech’s construction, the plural term “persons” becomes superfluous because each participant in a group of “persons” is

already a “person” who infringes by individually performing all of the steps of the patented method.

3. *Joint Infringement Complements Inducement and Contributory Infringement.*

Paymentech has argued that §271(a) should not reach joint infringement in view of §§271(b) and (c). Any attempt to use §§271(b) and (c) to define the scope of §271(a) reflects a basic misunderstanding of the interrelationship between these statutory sections.

Sections 271(b) and (c) impose liability for indirect infringement and only apply after an underlying act of direct infringement is established. *Glenayre Elecs., Inc. v. Jackson*, 443 F.3d 851, 858 (Fed. Cir. 2006). By defining what conduct short of direct infringement is sufficient to impose liability for indirect infringement, §§271(b) and (c) do not somehow also define what conduct establishes the predicate act of direct infringement under §271(a).

Nor do these sections define mutually exclusive, rigid boundaries for infringing conduct. Instead, they provide complementary and overlapping bases for imposing liability. *See, e.g., Arthrocare Corp. v. Smith & Nephew, Inc.*, 310 F.Supp.2d 638, 657-61 (D. Del. 2004), *aff'd in part, vacated in part*, 406 F.3d 1365 (Fed. Cir. 2005); *Drexelbrook Controls, Inc. v. Magnetrol Int'l, Inc.*, 720 F. Supp. 397, 407 (D. Del. 1989). The same conduct that induces or contributes to a direct infringement may also independently constitute an act of direct infringement

(e.g., selling an infringing product to one who uses it). *See, e.g., Union Carbide Chems. & Plastics Tech. Corp. v. Shell Oil Co.*, 425 F.3d 1366, 1369 (Fed. Cir. 2005).

Giving §271(a) its plain meaning does not render §§271(b) and (c) “meaningless” or “superfluous” because they continue to apply in circumstances where §271(a) does not. *Connecticut National Bank v. Germain*, 503 U.S. 249, 253 (1992) (overlapping statutory sections not superfluous where each “confers jurisdiction over cases that the other section does not reach”); *James v. Santella*, 328 F.3d 1374, 1381-82 (Fed. Cir. 2003) (interpretation not superfluous where “prevailing party” not always “substantially innocent”).

For example, §271(a) does not apply to an entity that performs *no steps of a patented method*. But that same entity could be liable for inducing infringement under §271(b). *See, e.g., Arthrocare Corp. v. Smith & Nephew, Inc.*, 406 F.3d 1365, 1376-77 (Fed. Cir. 2005). It could also be liable for contributory infringement under §271(c). *See, e.g., Preemption Devices, Inc. v. Minnesota Mining & Mfg. Co.*, 803 F.2d 1170, 1174 (Fed. Cir. 1986).

4. District Court Decisions Have Not Required “Direction” or “Control.”

Without analysis, the District Court accepted the recommendation that district courts “appear to require” an accused infringer to direct or control the

others. A27,A10,A15,A24. However, we could not find a prior district court case that so holds.

Prior to *On Demand*, joint infringement was addressed in no less than *16 different district court decisions*. A96-101,A3606-14. Neither the District Court, Paymentech, nor any commentator has ever asserted that any of these decisions were wrong.

Prior decisions have not limited joint infringement to participants that “direct” or “control” the others. Prior to this case, no one has cited a single prior published decision where a court held that a lack of evidence of direction or control precluded joint infringement.

Joint infringement was upheld based on an arm’s length business relationship between participants without any “direction” or “control” in the following cases:

- *Metal Film Co. v. Metlon Corp.*, 316 F. Supp. 96, 110 & n. 12 (S.D.N.Y. 1970) (Metlon infringed a method for producing filamentary metallized threads where outside suppliers performed conventional vacuum metallizing step)
- *Mobil Oil Corp. v. W.R. Grace & Co.*, 367 F. Supp. 207, 253 (D. Conn. 1973) (Grace infringed a method of making a catalyst where it sold the catalyst to purchasers who performed the final step when using the catalyst)

- *Shields v. Halliburton*, 493 F. Supp. 1376, 1388-89 (D. La. 1980) (Halliburton and Brown & Root both infringed a patented grouting method where Halliburton performed the grouting step and Brown & Root performed the step of sealing the annulus); *see also Faroudja Labs., Inc. v. Dwin Elecs., Inc.*, 1999 WL 111788 at *5-6 (N.D. Cal. Feb. 24, 1999) (analyzing *Shields*)³
- *Idacon, Inc. v. Central Forest Prods., Inc.*, 1986 WL 15837 at *11, 19-20 (E.D. Ok. Apr. 25, 1986) (Central Forest directly infringed a method of impregnating wood even though Simonsen Chemical performed some steps by making Aquacon-30 that Central Forest purchased and used to impregnate the wood)
- *E.I. DuPont de Nemours and Co. v. Monsanto Co.*, 903 F. Supp. 680, 734-37 (D. Del. 1995) (CaMac directly infringed a method of making stain-resistant nylon fibers even though the initial step was performed by Monsanto or BASF)

³ One commentator has misread *Shields* to assert one party “had instructed the other to perform the remaining steps.” A3169. A careful reading of *Shields* reveals no indication that one defendant instructed the other. The patent claimed a grouting method for an offshore oil platform. The method included a grouting step and an annulus sealing step. Halliburton performed the grouting operations “assisted by” Brown & Root employees on the platform, and Brown & Root performed the step of sealing the annulus. *Shields*, 493 F. Supp. at 1389. There is no mention of Halliburton directing or controlling Brown & Root in performing the annulus sealing step.

- *Avery Dennison v. UCB Films PLC*, 1997 WL 567799 at *2-3 (N.D. Ill. Sept. 4, 1997) (Converter companies were direct infringers even though two other distinct entities — UCB and laminators — performed preceding steps and the converter companies performed the remaining steps)

- *Cordis Corp. v. Medtronic AVE, Inc.*, 194 F. Supp. 2d 323, 349-50 (D. Del. 2002), *rev'd on other grounds*, 339 F.3d 1352 (Fed. Cir. 2003) (Doctors directly infringed method of using a stent where Boston Scientific disposed the stent on a catheter and doctors performed the remaining steps)

- *Pay Child Support Online Inc. v. ACS State & Local Solutions, Inc.*, 2004 WL 741465 at *9-10 (D. Minn. Apr. 5, 2004) (PCSO infringed a patented child support payments method where an employer transferred information and PCSO used that information to make payments)

- *Charles E. Hill v. Amazon.com, Inc.*, 2006 WL 151911 at *2-3 (E. D. Tex. January 19, 2006) (“[t]he relationship described in the patents between the main and the remote computer is one of vendor and customer” and this was “the very relationship relied upon” to establish infringement)

There is simply no basis for concluding that prior district court decisions “appear to require an agency relationship or evidence that the accused infringer directs or controls the infringing activities of the other parties” as both the District Court and Magistrate Judge concluded. A27,A10,A15,A24. At most, some

decisions have held evidence that a participant who “directs,” “controls” or instructs the others is sufficient, but not necessary, to hold that participant liable. *Applied Interact, LLC v. The Vermont Teddy Bear Co., Inc.*, 2005 WL 2133416 at *5-6 (S.D.N.Y. September 6, 2005); *Marley Mouldings Ltd. v. Mikron Indus., Inc.*, 2003 WL 1989640 at *2-3 (N.D. Ill. Apr. 30, 2003); *Free Standing Stuffer, Inc. v. Holly Dev. Co.*, 1974 WL 20219, 187 U.S.P.Q. 323, 332-333 (N.D. Ill. 1974). Upholding a claim for infringement where evidence has been presented that one participant “directs” or “controls” the others is a far cry from dismissing a claim because the evidence presented is insufficient.

Monsanto, Cordis and *Charles E. Hill* are particularly revealing. In *Charles E. Hill*, the court surveyed prior decisions and concluded that “proof of an agency relationship or concerted activity would be sufficient to impose liability in circumstances where one party does not perform all of the steps of the claimed method....” *Charles E. Hill*, 2006 WL 151911 at *2. The District Court in this case affirmatively quoted this very holding of *Charles E. Hill*, but simply ignored it. A9.

Monsanto and *Cordis* turn the “direct or control” standard upside down. The participant held liable for direct infringement was being directed or controlled (induced) by another participant, rather than the other way around. In *Monsanto*, 903 F. Supp. at 734-38, the court held that CaMac directly infringed, even though

Monsanto induced CaMac's direct infringement. In *Cordis*, 194 F. Supp. 2d at 349-50, the court found that the doctors directly infringed, and that Boston Scientific induced the doctor's direct infringement. If "direct" or "control" were the standard, the infringer in *Monsanto* and *Cordis* could only be Monsanto and Boston Scientific, respectively.

Rather than limit liability to circumstances where one participant "directs" or "controls" the others, district courts have found or opined that a participant would be liable for a joint infringement where:

(1) the patent describes multiple participants and the infringing activity involves the same participants. *See, e.g., Charles E. Hill*, 2006 WL 151911 at *2-3; *Pay Child Support Online*, 2004 WL 741465 at *9-10;

(2) the participants work together or in concert to perform a patented method. *See, e.g., Shields*, 493 F. Supp. at 1388-89; *Charles E. Hill*, 2006 WL 151911 at *2-3; *Cordis*, 194 F. Supp. 2d at 349-50 & n.19; *Classen Immunotherapies, Inc. v. King Pharmaceuticals, Inc.*, 403 F. Supp. 2d 451, 455 (D. Md. 2005); *Faroudja Labs.*, 1999 WL 111788 at *6 ("*Monsanto*, *Shields*, *Free Standing Stuffer* and *Metal Film* each demonstrate that the entities found to directly infringe patented processes worked in concert with other entities to complete the process of infringement.");

(3) the participants have an agency or contractual relationship. *See, e.g., Charles E. Hill*, 2006 WL 151911 at *2-3; *Marley Mouldings*, 2003 WL 1989640 at *2-3; or

(4) the participants interact to perform the patented method during the ordinary course of a commercial business relationship. *Cordis*, 194 F. Supp. 2d at 349-50; *Faroudja Labs*, 1999 WL 111788 at *6.

All of these circumstances are present here. *See* Part VI.C.1.

This Court should apply joint infringement in a manner that is consistent with these decisions even though they are not binding. *Hinck v. U.S.*, 446 F.3d 1307, 1315 (Fed. Cir. 2006).

5. *Direction or Control is Inconsistent with Patent Policy.*

The patent statute should be interpreted to give effect to the “object and policy” of the patent laws. *Warner-Lambert Co. v. Apotex Corp.*, 316 F.3d 1348, 1355 (Fed. Cir. 2003) (quoting *U.S. Nat’l Bank of Or. v. Indep. Ins. Agents of Am., Inc.*, 508 U.S. 439, 455 (1993)); *AT&T Corp. v. Microsoft Corp.*, 414 F.3d 1366, 1371 (Fed. Cir. 2005). The object and policy of the patent laws are rooted in the Framers’ intent to promote progress in the useful arts. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1574 (Fed. Cir. 1987).

To serve that end, Congress drafted a statutory scheme founded on a basic *quid pro quo* – an inventor is granted a right to exclude for a limited period of time

in exchange for public disclosure of his or her invention. *See, e.g., Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 484 (1974). The right to exclude is “the very essence” of the right conferred by the patent. *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U.S. 405, 429 (1908). As this Court has recognized, “Congress provided a right to exclusive use and to deny that privilege would destroy that right.” *Rite-Hite Corp. v. Kelley Co., Inc.*, 56 F.3d 1538, 1562 (Fed. Cir. 1995).

Imposing liability when several participants combine to use a patented method is consistent with a meaningful right to exclude. When §271(a) covers joint infringement, the balance between disclosure and the right to exclude is preserved. The inventor receives a right to exclude that protects against any use of the patented method, whether it is by a single entity or by the combined actions of several participants.

By contrast, if a participant must “direct” or “control” the others, the balance between the right to exclude and public disclosure is distorted, and possibly even destroyed, creating a loophole in protection for method patents that could never have been contemplated by Congress. Method patents involve a series of steps, and the use of a patented method necessarily involves performing each of the steps. *RIM*, 418 F.3d at 1318. If liability for joint infringement is imposed only on those participants who “direct” or “control” others, the right to exclude no longer

protects against any use of the patented invention, and any patented method may be easily circumvented.

Under a “direct” or “control” test, many activities that district courts have previously proscribed would now be permitted. For example, anyone could avoid infringement by:

- Working together, where each performs separate steps without one party directing or controlling the actions of the other, contrary to *Shields* and *Cordis*.
- Manufacturing a product so that purchasers would perform the remaining patented steps when the product was used, contrary to *Mobil Oil* and *Cordis*.
- Purchasing an intermediate product or material made by performing some steps of the patented method, and then completing the rest of the steps, contrary to *Idacon*, *Avery Dennison* and *Monsanto*.

Nothing would prevent entire industries from arising that are based on the manufacture and sale of products that partially practice a patented method. As long as purchasers did not direct or control the manufacturer to perform the initial steps, and the manufacturer did not direct or control the purchaser in performing

the remaining steps, such conduct would be lawful even though, in every case, the patented method is used.

6. *Business Realities And Patent Disclosures Would Mean Nothing.*

The situation is worse for those inventors who have disclosed and claimed a patented method that is performed by several participants. Limiting joint infringement to situations where one participant “directs” or “controls” the others could utterly destroy the right to exclude for such inventors, affording them nothing in exchange for their public disclosure.

Anyone could read a patent that discloses an invention involving several participants, copy exactly what is described in the patent, and avoid infringement through arms-length business relationships that divide the steps of a patented method without any one participant directing or controlling the actions of the other participants.

BMC’s patents fall into this category. The patents *describe and claim* a method that involves several participants, including a payee’s agent and a remote payment network. A46-79. The business realities necessitate that several participants are involved when a PDBP is processed, including the selected ATM network and the affiliated financial institution that issued the card. *See* Part VI.C.2.b.

BMC's patents do not present an isolated situation. Many other patents also describe and claim a method that is performed over a computer network by several participants. *See, e.g., Vermont Teddy Bear*, 2005 WL 2133416 at *2-4; *Charles E. Hill*, 2006 WL 151911 at *1; *Pay Child Support Online*, 2004 WL 741465 at *1; U.S. Patents No. 6,014,635; 6,021,943; 6,295,522; 6,327,578; 6,749,114; 6,752,313; 6,805,289; 6,807,410; 6,834,271; 6,807,530; 6,983,261; and 7,069,250 (A4159-82,A4200,A4345).⁴ For example, U.S. Patent No. 6,169,974, owned by Paymentech, describes and claims a method that is carried out by several participants, including a "business entity," a "merchant," a "bank card association," and a "credit card issuer." A4192,A4196(1:52-2:21),A4199.

This Court has refused to interpret the patent laws in a way that "would create a loophole in the patentee's rights too large to be a rational interpretation of Congress' intent." *Nat'l Steel Car, Ltd. v. Canadian Pacific Railway, Ltd.*, 357 F.3d 1319, 1329 (Fed. Cir. 2004). Confining joint infringement to situations that could destroy the right to exclude would create just such a loophole.

Relying on a Commentator, Paymentech has mistakenly claimed that the need to resort to joint infringement is simply the result of bad claim drafting, and

⁴ Although these patents were not part of the summary judgment record, this Court may take judicial notice of issued U.S. patents. *Hoganas AB v. Dresser Indus., Inc.*, 9 F.3d 948, 954 n.27; *Standard Havens Prods., Inc. v. Gencor Indus., Inc.*, 897 F.3d 511, 514 n.3 (Fed. Cir. 1990).

can always be avoided by merely drafting method claims that focus on “one entity and whether it supplies or receives in any given element.” A3181.

The idea that claim drafting can avoid the need to rely on joint infringement is naïve at best. While it may be possible to draft claims to focus on the steps performed by or “to” one of several participants when a patent is prosecuted, once the claims issue they are set in stone as a defined series of steps. From that point forward, it will almost always be possible to subdivide the performance of the claimed steps between several entities, particularly those involving distributed computer networks. Absent liability for joint infringement, *every* method patent owner’s rights are easily circumvented by this divided performance loophole, no matter how well or strained the patent claims may be drafted to cover a single entity.

C. BMC Presented Sufficient Evidence to Hold Paymentech Liable for Joint Infringement.

BMC presented sufficient evidence to hold Paymentech liable for joint infringement under *On Demand*, the District Court’s “direct” or “control” standard, or any other appropriate standard for joint infringement.

1. *Paymentech is Liable under On Demand.*

Analyzing the record evidence using the *On Demand* participation and combined actions standard, not only negates summary judgment, it compels the

conclusion that Paymentech is a direct infringer. *On Demand*, 442 F.3d at 1344-45.

[

]

b. Prior to Infringing, Paymentech Coordinated the Set Up of the Systems Necessary to Process PDBP Transactions.

(1) Paymentech Worked With the ATM Networks.

Three ATM networks accept PDBP transactions, NYCE, STAR and PULSE.

A1711. [

I
(2) **Paymentech Worked with Its Merchant Customers.**

I
] The Magistrate Judge found that Paymentech “works

closely with its merchant customers” in developing IVR scripts used to prompt callers for information and to inform callers whether the transaction is approved or declined. A26; *see also* A2211-12¶7.

Paymentech reviews its merchant customer’s IVR scripts and provides feedback, communicates with the ATM networks on behalf of the merchant, and provides merchants with a comprehensive computer user guide and ongoing technical assistance. A26. The Magistrate Judge found this to be evidence that Paymentech directed or controlled the merchant customers. A26.

I

]

(3) Paymentech, Verizon and the ATM Networks Worked Together.

[

]

c. The Participation and Combined Actions of Paymentech and Others Result in Infringement.

[

] Each PINless transaction is processed through the participation and combined actions of Paymentech, its merchant customer, a selected ATM network, and the card-issuing financial institution.

Each time a PINless transaction is processed, the steps of BMC's patents are performed. This is described below for '456 Patent claim 7 and '298 Patent claim 2. An element by element analysis is also provided in the claim chart attached to Mr. Patterson's verified expert report. A2164-82,A2133-58.

(1) All Steps of '456 Claim 7.

Paymentech has not disputed that the preamble of claim 7 is met.

[

]

Claim 7 includes two prompting elements, prompting the caller to enter a payment number and a payment amount. A61. [

]

Claim 7 next includes a step of “accessing” the remote payment network (*i.e.*, ATM networks). A61-62. [

]

The next step of claim 7 involves determining whether sufficient funds exist to complete the transaction. A62. [

]

The next steps of claim 7 involve “charging” and “adding” the payment amount. A62. [

]

The next step of claim 7 involves storing the account number, payment number and payment amount. A62. [

]

The final element of claim 7 is that the payment number is a “PIN-less credit or debit card number.” A62. [

]

(2) All Steps of '298 Claim 2 Are Also Met.

The combined actions of these participants also infringe '298 Patent claim 2. Claim 2 includes the elements of '456 Patent claim 7 plus some additional elements discussed below.

Claim 2 includes an additional prompting step for the account number. A78.

[

]

Claim 2 includes two validation steps, one for the account number and another for the payment number. A78. [

]

Claim 2 also includes an additional step of “informing” the caller whether the transaction is approved or declined. A78. [

]

Finally, claim 2 recites that “the payment number is a debit card number.” A78. [

] The evidence further

shows that infringement results from these combined actions because all of the

steps of BMC's patents, in particular '456 Patent claim 7 and '298 Patent claim 2, are performed. Under *On Demand*, Paymentech is jointly liable for that infringement.

d. The District Court's Analysis Is No Substitute for *On Demand*.

The District Court erroneously held BMC's evidence insufficient under a "lesser standard" because BMC had not shown a "connection" between Paymentech and the financial institution. A16. However, *On Demand* does not require a direct connection, and even if it did, there is sufficient evidence to show such a connection.

The *On Demand* standard does not require a direct "connection" between each participant. It requires only that the actors participate and combine their actions to use a patented method. In other words, A can be directly connected to B and B can be directly connected to C without A being directly connected to C, as long as A, B, and C all participate, and the combined activities result in an infringement. [

]

Though not required, the evidence shows that Paymentech has a "connection" to the financial institution. BMC presented sufficient evidence to support at least an inference that the financial institution is not a separate

participant in PINless transactions but is actually part of the ATM network, despite the District Court's contrary conclusion. A11. [

] Even BMC's patent

conflates the ATM networks and financial institutions:

[A]ll transactions will be routed electronically to the **card issuing entity/network** by the TelePay system for positive authorization as to card acceptability, credit limit guidelines, payment status, balance availability, and any and all criteria that the issuer deems appropriate.

A61(11:12-16),A78(11:11-15). This is no surprise because the ATM networks are actually made up of member financial institutions who issue debit cards for the ATM networks. A2982,A3316,A3372-73.

Paymentech is also connected to the financial institution through the transaction message. The District Court dismissed the transaction message as nothing more than “evidence that Paymentech sends some sort of information to the financial institutions through the ATM networks.” A16. However, that transaction message is what “directs” and “controls” the transaction.

[

] just as

Paymentech’s own advertising literature states:

“Paymentech forwards the authorization request to the customer’s bank via the NYCE, PULSE[®] or Star[®] debit networks.” A1376.

This evidence is more than adequate to show that Paymentech and the financial institution are connected whenever a PDBP transaction is processed.

2. *Holding Paymentech Liable for Joint Infringement Is Clearly Appropriate.*

This case presents a clear situation where Paymentech should be held liable for joint infringement under any standard.

a. *Paymentech Involves the Same Participants Disclosed in BMC’s Patents*

District courts have concluded that “direct infringement may be sustained when a method claim is performed by connected entities *and particularly where the patent contemplates action by at least two actors.*” *Vermont Teddy Bear*, 2005 WL 2133416 at *5-6 (emphasis added); *see also Charles E. Hill*, 2006 WL 151911 at *2-3; *Pay Child Support Online*, 2004 WL 741465 at *9-10. A contrary approach would all but destroy the right to exclude. The inventor would receive little or no protection for his invention, even though the public was duly notified that the claimed invention covers conduct by multiple actors. *See* Part VI.B.4-5.

BMC’s patents describe a method that involves several participants, including a payee whose bill is to be paid (*i.e.*, merchant customer), a payee’s agent (*e.g.*, Telepay, BMC or Paymentech), and a debit card network/financial institution (*e.g.*, Star, NYCE or PULSE). The preferred embodiment describes a

method for a consumer to pay the bill of a specific payee, for example “Florida Power and Light.” A58(5:15-21),A75(5:15-21). The “consumer calls into the TelePay system 10 [i.e., the payee’s agent’s system] using a telephone 12”. A57(4:25-29),A74(4:25-29). The “TelePay system 10 assembles the data into an authorization request message, which is electronically sent to a debit card network 20 for transmission to a financial institution 22 that issued the card for verification of balance on deposit.” A57(4:37-42),A74(4:37-42). The Pulse network is identified as one of the networks used to process these PINless transactions. A59(8:45-49),A76(8:45-49).

The Paymentech PDBP transactions involve the same participants described in BMC’s patents. A4. When Paymentech processes a PINless transaction, “the customer calls the merchant [i.e., payee] to pay a bill”, “the merchant [i.e., payee] collects payment information from the customer and sends it to Paymentech,” the payee’s agent “Paymentech routes the information to a participating debit network”, and “the debit network forwards the information to an affiliated financial institution.” A4. And just like BMC’s patents, Pulse is one of the debit networks Paymentech uses to process PINless transactions. A1280,1376.

The District Court disregarded this evidence because BMC’s patents did not contain express language “providing that the financial institutions should ‘charg[e] the entered payment amount against the account associated with the entered

payment number.” A16. But when a patent discloses an invention performed by several participants, it does not matter whether each participant performs the specific step assigned to it in the preferred embodiment. Such a categorical restriction would inappropriately limit the patent to the preferred embodiment. *SanDisk Corp. v. Memorex Prods., Inc.*, 415 F.3d 1278, 1286 (Fed Cir. 2005) (citing *Laitram Corp. v. Cambridge Wire Cloth Co.*, 863 F.2d 855, 865 (Fed. Cir. 1988)).

Moreover, the District Court’s logic would allow anyone to easily avoid method patents merely by switching around who performs the steps.

b. The Business Realities Require Several Participants.

Joint infringement has been found where “it is unlikely in terms of the realities of the business situation that any one person or company would itself physically perform all of the steps of the claim.” *Free Standing Stuffer*, 1974 WL 20219, 187 U.S.P.Q. at 333. In *Free Standing Stuffer*, the claim involved a method of printing and inserting ads in a newspaper. The participants were defendant Holly, the advertising agency, the printer who printed the ads, and the company that inserted the ads into the newspaper. 1974 WL 20219, 187 U.S.P.Q. at 332-333.

The business realities of PINless transaction processing make it unlikely that the “payee’s agent,” like Paymentech, would ever perform all of the steps. A

payee's agent, like BMC or Paymentech, allows merchant customers to have "one connection to one processor who then routes the transactions to the appropriate network," and makes it easier for individual networks to make back-end changes. A609. This purpose could not be served if Paymentech or BMC also performed the back-end processing steps of "determining," "debiting," and "crediting."

Similarly, BMC's patented PDBP transactions happen in "real-time," while the caller is still on the phone. A3-4. The payment amount is "immediately" debited, which means the funds are removed from the customer's account and are no longer available for use. A577-78,A606,A623-24,A978-79. For any payee's agent's system like Paymentech to accomplish this, it would have to have direct access to consumer's ATM account. As the District Court recognized, the ATM card-issuing financial institution does the debiting and crediting because it is the one with direct access to the debit card account. A9-10,A3374,A2980.

c. This Case Falls Squarely Within Any Boundaries of Joint Infringement.

Whatever concerns may be raised about the prospect of joint infringement reaching truly unrelated and independent conduct by separate actors, this is not such a case. Prior to processing any PINless transactions, [

The conduct involved here simply could not be more coordinated and concerted towards achieving the result that infringes BMC's patent, and is squarely within the bull's-eye of any target that defines joint infringement.

3. *Even Under A "Direct" or "Control" Standard, BMC Presented Sufficient Evidence.*

The Magistrate recommended, and the Court accepted, the conclusion that the merchant customers performed all the steps at the direction or control of Paymentech. A26. The District Court concluded that BMC had not shown sufficient evidence to create a genuine issue of material fact as to whether it directs or controls the activities of the "ATM networks" or the "financial networks." A14. It went so far as to state that BMC did not even argue Paymentech "controls" the transaction. A13. However, BMC argued that evidence shows direction and control: "The debit network/financial institution could not process the DBP transaction if Paymentech did not *direct and control* the data stream with the instructions needed for debit network processing." A3618 (emphasis added).

The District Court inappropriately downplayed Paymentech's role in setting up each PINless transaction and instructing the ATM network and its card issuing member bank. In doing so, the District Court made fact findings, ignored BMC's evidence and failed to draw all reasonable inferences in BMC's favor. Although BMC is not required to show that Paymentech directed or controlled the ATM networks or the "financial networks," BMC presented sufficient evidence to at least create a triable fact issue under that incorrect standard.

[

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Paymentech's own promotional materials admit that:

Paymentech forwards the authorization request to the customer's bank via the NYCE, STAR®, and Pulse® debit network.

A1376,A13. The District Court acknowledged this admission but apparently ignored it. A13.

The testimony and Paymentech admission provide ample evidence to not only infer, but find, that Paymentech directs or controls the selected ATM network and affiliated financial institution. It supports an inference, at least as much, if not more, as evidence of a frog in a punch bowl supports an inference that the frog was put there by a mischievous guest. *American Telephone & Telegraph Co. v. Delta Communications Corp.*, 590 F.2d 100, 102 (5th Cir. 1979).

Paymentech also directs and controls the ATM network and financial institution through the transaction data message it constructs and sends.

[

]

Several district courts have imposed liability for joint infringement where the evidence shows that a participant provided “instructions” to other participants.

Vermont Teddy Bear, 2005 WL 2133416 at *5-6; *Free Standing Stuffer*, 1974 WL 20219, 187 U.S.P.Q. at 333; *Marley Mouldings*, 2003 WL 1989640 at *3, 66 U.S.P.Q.2d at 1703. The data message that Paymentech constructs and sends to the selected ATM network and on to the financial institution is no different from, and should be treated identically to, an explicit instruction given by a human over the telephone to debit a particular account and credit another account. *See, e.g., Smith v. Maryland*, 442 U.S. 735, 744-45 (1979); *State of Oklahoma v. Bank of Oklahoma*, 409 F. Supp. 71, 79 (N.D. Ok. 1975).

Courts have recognized that this type of electronic funds transfer payment message “instruct[s] the next party in line as to the steps it must follow to carry out the funds transfer.” *Grain Traders, Inc. v. Citibank, N.A.*, 960 F.Supp. 784, 788 (S.D.N.Y. 1997); *Impulse Trading, Inc. v. Norwest Bank Minn., N.A.*, 870 F. Supp. 954, 959 (D. Minn. 1994). This evidence is sufficient to show that Paymentech directs or controls the selected ATM network and card-issuing financial institution during each PINless transaction by instructing those networks how to process the transaction through the data message.

The District Court erred in concluding that the data message did not show “any evidence of instructions or directions by Paymentech” because it “cannot assume that Paymentech also provides instructions or directions on how to use such data.” A14.

The Court appears to be under the misimpression that there must be proof of instructions or directions *in addition to* the data in the transaction message. The data contained in the transaction message itself provides the instruction and directions to the ATM networks/financial institutions. [

I

Second, the District Court failed to consider any reasonable inferences that could be drawn from the evidence BMC presented. *See Applied Med.*, 448 F.3d at 1331. The Court simply referred to BMC's evidence as "data," said it could not "assume" that Paymentech "provides instructions or directions," and then curtailed its analysis. A14. It did not consider the content of the data, what occurred when the ATM networks/financial institutions received the data, or any reasonable inferences that could be drawn from this evidence as to the purpose or effect of this data on processing by the selected ATM network and card-issuing financial institution.

[The only reasonable inference that can be drawn from the evidence is that Paymentech instructs, directs and controls the selected ATM network and card-issuing financial institution how to process each PINless transaction through the data transaction message it constructs. *See, e.g., American Telephone & Telegraph*, 590 F.2d at 102.

D. Paymentech Induced Verizon's Infringement.

BMC argued that Paymentech was also liable for inducing [] infringement under §271(b). A119-126. Neither the District Court nor the Magistrate Judge addressed BMC's evidence that the merchants directly infringed BMC's patents, or that Paymentech induced this infringement.

Under *On Demand*, each participant in a joint infringement is a direct infringer. *See* Part VI.B.1. BMC's evidence shows that each merchant participated and combined its actions in a manner that results in joint infringement of BMC's patents. Thus, [] are direct infringers. *See* Part VI.C.1.a.-c.

BMC's evidence shows that Paymentech induced [] direct infringement. []

] See Part VI.C.1.b.-c. *Minnesota Mining and Manufacturing Co. v. Chemque, Inc.*, 303 F.3d 1294, 1305 (Fed. Cir. 2002); *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1272 (Fed. Cir. 1986); *Water Technologies Corp. v. Calco, Ltd.*, 850 F.2d 660, 668 (Fed. Cir. 1988); *Monsanto*, 903 F. Supp. at 739.

[

] *Hewlett-Packard Co. v. Baush & Lomb Inc.*, 909 F.2d 1464, 1470 (Fed. Cir. 1990); *Monsanto*, 903 F. Supp. at 737, 739.

The District Court's grant of summary judgment must also be vacated because BMC presented sufficient evidence that Paymentech induced infringement of BMC's patents.

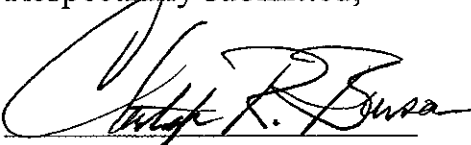
VII. Conclusion

BMC requests that the Court hold the District Court erred in concluding that "directed or controlled" is the standard for joint infringement. On that harmful error alone, the summary judgment should be vacated and this action should be remanded.

BMC also requests that the Court apply *On Demand* to the record evidence *de novo*. BMC believes that analysis will show that Paymentech infringes as a matter of law, which requires reversal and remand for further proceedings.

Even if “direct” or “control” is applied, a material fact regarding joint infringement remains that requires *vacatur* of the judgment and remand of the action.

Respectfully submitted,



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Attorneys for Plaintiff-Appellant

CERTIFICATE OF SERVICE

I certify that two true and correct copies of the **NON-CONFIDENTIAL BRIEF OF PLAINTIFF-APPELLANT BMC RESOURCES, INC.** have been served on the following counsel of record on September 29, 2006, via U.S. Postal Service First-Class Mail, postage pre-paid:

John M. Cone
Hitchcock Evert L.L.P.
750 North St. Paul Street,
Suite 1110
Dallas, Texas 75201



Jeffrey D. Mills
Attorney for Plaintiff-Appellant

September 29, 2006

**CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME
LIMITATION, TYPEFACE REQUIREMENTS, AND TYPE STYLE
REQUIREMENTS**

1. This brief complies with the type-volume limitation of Federal Rule of Appellate Procedure 32(a)(7)(B) because the brief contains 13,570 words, excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(a)(7)(B)(iii), and Federal Circuit Rule 32(b).

2. This brief complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type style requirements of Federal Rule of Appellate of Procedure 32(a)(6) because the brief has been prepared in a proportionally spaced typeface using Microsoft® Word 2002 in 14 point Times New Roman font.



Jeffrey D. Mills

Attorney for Plaintiff-Appellee

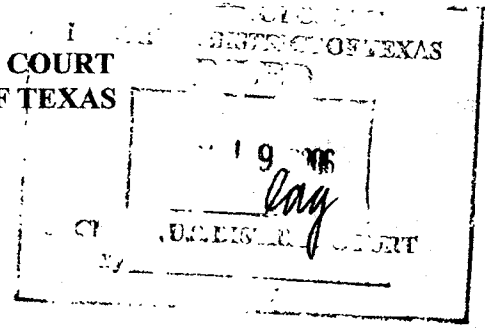
September 29, 2006

ADDENDUM

Amended Judgment, Judgment,
Memorandum Opinion,
Findings and Recommendation

By M

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION**



BMC RESOURCES, INC.

Plaintiff,

v.

PAYMENTECH, L.P.

Defendant.

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Civil Action No. 3:03CV1927

AMENDED JUDGMENT

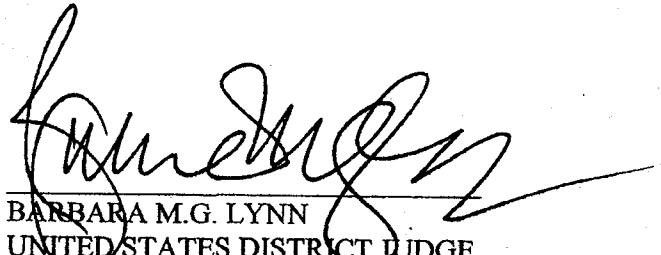
In light of the Court's Memorandum Opinion and Order dated May 24, 2006, it is **ORDERED, ADJUDGED, and DECREED** that Plaintiff takes nothing on its claims against Defendant.

Defendant's invalidity counterclaims are dismissed without prejudice and may be re-filed in the event that any appeal results in a remand.

Defendant shall recover all taxable costs from Plaintiff.

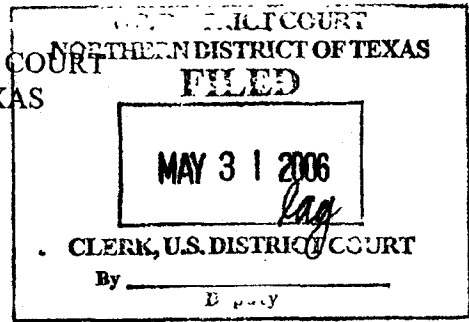
SO ORDERED.

June 19, 2006.


BARBARA M.G. LYNN
UNITED STATES DISTRICT JUDGE
NORTHERN DISTRICT OF TEXAS

CM
ORIGINAL

IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION



BMC RESOURCES, INC.,

Plaintiff,

v.

PAYMENTECH, L.P.,

Defendant.

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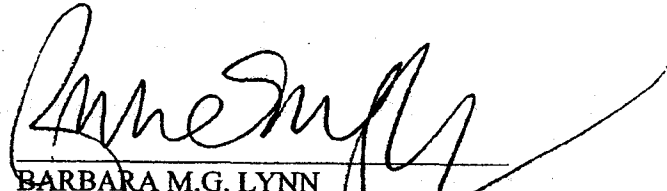
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JUDGMENT

In light of the Court's Memorandum Opinion and Order dated May 24, 2006, it is **ORDERED, ADJUDGED, and DECREED** that Plaintiff takes nothing on its claims against Defendant. Defendant shall recover all taxable costs from Plaintiff.

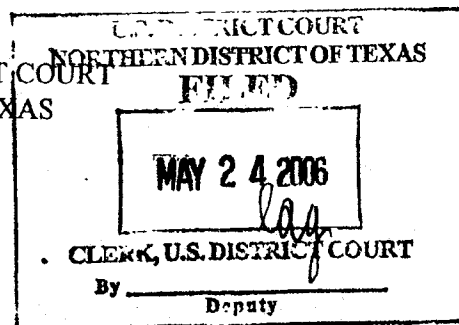
SO ORDERED.

May 31, 2006.


BARBARA M.G. LYNN
UNITED STATES DISTRICT JUDGE
NORTHERN DISTRICT OF TEXAS

ORIGINAL

IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION



BMC RESOURCES, INC.,

Plaintiff,

v.

PAYMENTECH, L.P.,

Defendant.

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MEMORANDUM OPINION AND ORDER

This Court has conducted an independent review of the file and the pleadings in this case, as well as the Findings and Recommendation (the "Findings") of United States Magistrate Judge Jeff Kaplan, filed on February 9, 2006, to which the Plaintiff has asserted objections. The Court accepts the Findings and Recommendation of the United States Magistrate Judge.

FACTUAL BACKGROUND

As stated in the Findings, the factual background of this case is as follows. BMC is the assignee of two patents covering the method and apparatus for processing debit transactions without a personal identification number ("PIN"). U.S. Patent No. 5,715,298 (Feb. 3, 1998) ("the '298 Patent") and U.S. Patent No. 5,870,456 (Feb. 9, 1999) ("the '456 Patent"). Simply stated, the patented invention, also known as the Telepay¹ system, provides an interface between a standard touch-tone telephone and a debit card network such that real-time bill payment

¹BMC was formerly known as Telepay.

transactions may be effected by using a telephone keypad. The invention includes an interactive voice response unit ("IVR") that prompts the caller to enter an access code, account number, debit card number, and payment amount. Using the invention, the caller may initiate a bill payment transaction, obtain information regarding authorization of the transaction, and inquire about previously processed transactions.

Paymentech is in the business of assisting clients, typically retail merchants, with processing payment transactions. In 2002, Paymentech began marketing PINless debit bill payment services ("DBP") to its existing and potential customers. The success of that marketing campaign enabled Paymentech to expand its operations to process DBP transactions. When Paymentech processes a DBP transaction, the following sequence occurs:

1. the customer calls the merchant to pay a bill using an IVR;
2. the merchant collects payment information from the customer and sends it to Paymentech;
3. Paymentech routes the information to a participating debit network;
4. the debit network forwards the information to an affiliated financial institution;
5. the financial institution authorizes or declines the transaction and, if authorized, charges the customer's account according to the payment information collected by the merchant;
6. information regarding the status of the transaction moves from the financial institution to the debit network and then, through Paymentech, to the merchant, who informs the customer of the status of the transaction.

Upon learning that Paymentech was offering DBP processing services to its clients, BMC demanded that Paymentech enter into a license agreement to use the Telepay system. Paymentech refused and, as a preemptive measure, filed suit in federal district court seeking a declaration of non-infringement with respect to the '456 Patent, the '298 Patent, and U.S. Patent No. 5,652,786 ("the '786 Patent"). After the parties were realigned, BMC, as plaintiff, amended its complaint to allege direct infringement and infringement by inducement of both the '456 Patent and the '298 Patent. The Court dismissed Paymentech's claim with respect to the '786 Patent for lack of subject matter jurisdiction on May 28, 2004.²

On February 9, 2006, Judge Kaplan entered his Findings, recommending that the Court grant Paymentech's Motion for Summary Judgment and deny BMC's Motion for Partial Summary Judgment. BMC filed Objections on February 28, 2006, Paymentech filed its Response on March 13, 2006, and BMC filed its Reply on March 28, 2006. Both parties filed supplemental briefs to address the Federal Circuit's recent decision in *On Demand Machine Corp. v. Ingram Indus., Inc.*, 442 F.3d 1331 (Fed. Cir. 2006).

STANDARD OF REVIEW

Summary judgment is warranted when the facts and law, as reflected in the pleadings, affidavits, and other summary judgment evidence, show that no reasonable trier of fact could find for the nonmoving party as to any material fact. *Pourgholam v. Advanced Telemktg. Corp.*, No.

²Paymentech's claim was dismissed for lack of subject matter jurisdiction because Paymentech could not prove it had an "objectively reasonable apprehension" of being sued for infringement of the '786 Patent. *BMC Res., Inc. v. Paymentech, L.P.*, 2004 U.S. Dist. LEXIS 22758, No. 3-03-CV-1927-M, 2004 WL 981079 (N.D. Tex. May 5, 2004), *rec. adopted*, 2004 U.S. Dist. LEXIS 22755, 2004 WL 1196119 (N.D. Tex. May 28, 2004).

3:01-CV-2764-H, 2004 U.S. Dist. LEXIS 10659, at *2-3 (N.D. Tex. June 9, 2004) (citing Fed. R. Civ. P. 56; *Lujan v. Nat'l Wildlife Fed'n*, 497 U.S. 871, 888 (1990); *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 251 (1986); *Celotex Corp. v. Catrett*, 477 U.S. 317, 323-25 (1986)). "The moving party bears the initial burden of identifying those portions of the pleadings and discovery in the record that it believes demonstrate the absence of a genuine issue of material fact, but is not required to negate elements of the nonmoving party's case." *Lynch Props., Inc. v. Potomac Ins. Co.*, 140 F.3d 622, 625 (5th Cir. 1998) (citing *Celotex*, 477 U.S. at 322-25). Once the movant carries its initial burden, the burden shifts to the nonmovant to show that summary judgment is inappropriate. *Fields v. City of S. Houston*, 922 F.2d 1183, 1187 (5th Cir. 1991).

The nonmovant is then required to go beyond the pleadings and designate specific facts that prove the existence of a genuine issue of material fact. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986). That party may not rest on conclusory allegations or denials in its pleadings that are unsupported by specific facts. Fed. R. Civ. P. 56(e). The court must review all evidence in the record, giving credence to evidence favoring the nonmovant as well as "evidence supporting the moving party that is uncontradicted and unimpeached, at least to the extent that evidence comes from disinterested witnesses" and disregarding the evidence favorable to the nonmovant that the jury is not required to believe. *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 152 (2000). Further, "the court must draw all justifiable inferences in favor of the nonmovant." *Keelan v. Majesco Software, Inc.*, 407 F.3d 332, 338 (5th Cir. 2005).

In determining whether genuine issues of material fact exist, "factual controversies are construed in the light most favorable to the nonmovant, but only if both parties have introduced

evidence showing that a controversy exists." *Lynch Props.*, 140 F.3d at 625. "If the record, taken as a whole, could not lead a rational trier of fact to find for the non-moving party, there is no genuine issue for trial." *Friou v. Phillips Petroleum Co.*, 948 F.2d 972, 974 (5th Cir. 1991). However, in the absence of proof, a court will not conclude that the nonmoving party could prove the required facts. *Lynch Props.*, 140 F.3d at 625.

ANALYSIS

1. Direct Infringement of the '298 Patent and the '456 Patent

"It is well established that a patent for a method or process is not infringed unless all steps or stages of the claimed process are utilized." *NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1318 (Fed. Cir. 2005) (citing *Roberts Dairy Co. v. United States*, 530 F.2d 1342, 1354 (Ct. Cl. 1976)). Typically, "infringement of a method claim occurs only when the accused infringer carries out every step as set forth in the claim." See *Faroudja Labs., Inc. v. Dwin Elecs., Inc.*, No. 97-20010-SW, 1999 U.S. Dist. LEXIS 22987, at *10 (N.D. Cal. Feb. 24, 1999) (citing *Gen. Foods v. Studiengesellschaft Kohle mbH*, 972 F.2d 1272, 1274-75 (Fed. Cir. 1992)).

However, "[i]nfringement of a patented process or method cannot be avoided by having another perform one step of the process or method." *Shields v. Halliburton Co.*, 493 F. Supp. 1376, 1389 (W.D. La. 1980) (citing *Metal Film Co. v. Metlon Corp.*, 316 F. Supp. 96 (S.D.N.Y. 1970)); see also *E.I. DuPont de Nemours & Co. v. Monsanto Co.*, 903 F. Supp. 680, 745 (D. Del. 1995).

"[S]everal district courts have found that a party directly infringes a method or process patent where the various steps in the patent are performed by distinct entities." *Marley Mouldings Ltd. v. Mikron Indus., Inc.*, 66 U.S.P.Q.2d (BNA) 1701, 2003 U.S. Dist. LEXIS 7211, at *7-8 (N.D.

Ill. Apr. 29, 2003) (collecting cases) *rev'd on other grounds* by 417 F.3d 1356 (Fed. Cir. 2005). In a recent case, without analysis, the Federal Circuit generally approved a jury instruction based on joint infringement of a process patent. *See On Demand*, 442 F.3d at 1344-45.

After showing that multiple entities carry out every step as set forth in the claim of a process patent, to show that a specific entity is liable for direct infringement, a party must show that the specific entity is "connected" to the other entities performing the other steps. *See Marley*, 2003 U.S. Dist. LEXIS 7211, at *7-8; *Hill v. Amazon.com, Inc.*, 2:02-CV-186, 2006 U.S. Dist. LEXIS 3389, at *15 (E.D. Tex. Jan. 19, 2006) (Ward, J.). "Under such facts, [the specific entity], . . . through its connection with the entity performing only part of the process, is in actuality performing the combination of each and every step of the claimed method." *Marley*, 2003 U.S. Dist. LEXIS 7211, at *9.

District courts vary, however, as to what kind of "connection" between the entities they require a party to prove to show direct infringement.³ In *Faroudja*, the court stated that "some

³BMC argues that the Federal Circuit's recent decision in *On Demand* addresses this point of law. In *On Demand*, the Federal Circuit reversed a jury verdict of infringement of a process patent. 442 F.3d at 1333-34. The *On Demand* panel considered, *inter alia*, whether the actions of two entities, together, jointly infringed the process patent. *Id.* at 1344-45. The panel noted that the combined actions of the two entities did not infringe the patent; as a result, the panel did not reach the question of what kind of "connection" between the entities was necessary to sustain a jury verdict of joint infringement. *See id.*; accord *NTP*, 418 F.3d at 1318.

However, the panel quoted the district court's jury instruction, which stated that "[w]here the infringement [of a process patent] is the result of the participation and combined actions of one or more persons or entities, they are joint infringers and are jointly liable for the infringement." *On Demand*, 442 F.3d at 1344-45. Without analysis, the panel stated that it "discern[ed] no flaw in this instruction as a statement of law." *Id.* BMC argues that, by this statement, the panel adopted a "participation and combined action" standard as the type of "connection" a plaintiff must show to prove joint infringement. The Court disagrees. As noted above, the Federal Circuit did not rely on the relationship between the entities in its holding; rather, the panel held that, whatever the connection between the entities, their joint actions did not infringe the patent. *See id.* Because the district court's definition of "connection" was not

connection” must exist between the entities, but also suggested that the entities must work “in concert”. 1999 U.S. Dist. LEXIS 22987 at *15, *17. In *Marley*, the court refused to find non-infringement as a matter of law, because it found a material issue of fact as to whether the purported infringing entity had “control” over another entity, but suggested that finding only “some kind of connection” was needed. 2003 U.S. Dist. LEXIS 7211, *9-10. In *Applied Interact, LLC v. Vermont Teddy Bear Co.*, the court refused to find non-infringement as a matter of law because the steps of the claim were performed by “connected entities” and “the patent contemplate[d] action by at least two actors”, and the purported infringing entity instructed another entity on how to perform some of the steps of the method patent. 04 Civ. 8713 (HB), 2005 U.S. Dist. LEXIS 19070, (S.D.N.Y. Sept. 6, 2005). The court in *Hill* suggests that, to prove a “connection”, a party may show agency, a contractual relationship, or that the purported infringer directed or worked in concert with another entity. *See Hill*, 2006 U.S. Dist. LEXIS 3389 at *17-18.

In his Findings, Judge Kaplan recognized that “[b]oth parties agree that at least part of [the claimed process] is performed by . . . debit networks and participating financial institutions.” Findings at 9. The court noted three steps performed by these entities: (1) determining whether sufficient funds exist in the PINless credit or debit card account, (2) charging the payment

relied on in the panel’s conclusion, the Court refuses to read the panel’s dictum that it found “no flaw” as a wholesale adoption of the district court’s jury instruction.

Because neither party points to any Federal Circuit or Supreme Court authority that addresses this point of law, the Court will consider apposite district court authority. *Accord Marley*, 2003 U.S. Dist. LEXIS 7211, at *6 (“Neither the Supreme Court nor the Federal Court of Appeals has addressed the issue of whether a party who does not perform every step of a method claim may be liable for direct infringement of a method claim where separate entities perform separate steps of a method claim.”)

amount against the account, and (3) adding the payment amount to the merchant's account. *Id.* at 9-10. In BMC's brief supporting summary judgment, it recognized that "the financial institution will, during the call, charge the payment against the account of the debit card holder."⁴ Pl. Br. at 19; *accord* Def. Br. at 11 ("There is no dispute that the financial institution that issued the payment card used by the consumer is the entity that charges against, or debits, the consumer's account.").

Magistrate Judge Kaplan next determined the kind of "connection" BMC needed to show between Paymentech and the other entities performing steps of the process patents. It stated that "courts appear to require a close relationship or connection between the infringer and the other entity such that the party accused of infringement directs or controls the actions of the other party." Findings at 7-8 (citing *Marley*, 2003 U.S. Dist. LEXIS 7211, at *9; *Cordis Corp. v. Medtronic AVE Inc.*, 194 F. Supp. 2d 323, 349-50 (D. Del. 2002), *rev'd on other grounds* by 339 F.3d 1352 (Fed. Cir. 2003); *Mobil Oil Corp. v. Filtrrol Corp.*, 501 F.2d 282, 291-92 (9th Cir. 1974)). Although Judge Kaplan noted evidence creating a genuine issue of material fact as to whether Paymentech directs or controls the steps performed by its retail customers, he found that the record was devoid of evidence that showed that Paymentech directs or controls the alleged infringing activities of the debit networks and the financial institutions. Findings at 9-11.⁵

⁴In its Objections, BMC states that "The debit networks and affiliated financial institutions determine if the transaction is authorized or declined and perform the adding and charging steps." Despite this assertion, the associated citations to the appendix do not support a finding that the debit networks charge the payment against the account of the debit card holder. See Pl. App. at 427-28, 475-76, 1134, 1227.

⁵To the contrary, the evidence suggests that the debit networks follow their own rules and regulations for processing DBP transactions, and that Paymentech can be fined if a merchant fails to comply with those regulations." Findings at 11.

BMC raises two issues in its Objections concerning these findings. First, BMC argues that it has produced evidence that Paymentech directs and controls the debit networks/financial institutions. Second, BMC claims that it should not have to show that Paymentech “directs and controls” the debit networks/financial institutions; rather, it should only have to show that Paymentech had “some connection” with the debit networks. The Court will consider each argument.

As a preliminary matter, the Court notes that BMC appears to have conflated many of its arguments concerning the debit networks and the financial institutions. At various points in its Objections, BMC refers to the “debit networks/financial institutions” and the “debit networks/affiliated financial institutions”. Other assertions in its Summary Judgment Brief and Objections imply that the debit networks and financial institutions are two separate entities. *See* Pl. Objs. at 4 (“The selected debit network communicates with the affiliated financial institution who issued the network debit card.”); Pl. Br. at 11-12 (“The networks forward information to an affiliated financial institution.”) Although BMC asserts that the debit networks and the financial institutions are “affiliated”, and that the debit networks “communicate” with the financial institutions, BMC has not provided evidence that the Court should consider the debit networks and financial institutions as a unitary entity.

Both sides stated that the financial institutions perform the step of “charging the payment amount against the account” step. Pl. Br. at 19 (citing Pl. App. at 1578); Def. Br. at 11. The debit networks, in concert with the financial institutions, perform the step of “determining whether sufficient funds exist in the PIN-less credit or debit card account”. Pl. Br. at 19; Def. Br. at 11. As a result, the Court must consider whether Paymentech showed evidence of the requisite

“connection” for the debit networks and the financial institutions.

a. Evidentiary Support Under the “Direct or Control” Standard

BMC argues that it has shown sufficient evidence to create a genuine issue of material fact as to whether it directs or controls the activities of the debit networks/financial institutions.

BMC has provided evidence of some relationship between Paymentech and the debit networks, including: (1) Paymentech petitioned the debit networks for authorization for the merchants to use the networks, and “basically deal[t] with the debit network relationship” for the merchants, *See* Pl. App. at 389, 448-50, 766-67, 917, 948, 957-60, 979-82, 1056, 1135, 1207, 1646-48, 1840, 1872, 2299; (2) Paymentech ensured that the merchants complied with the regulations of the debit networks⁶, Pl. App. at 446, 449-50, 462, 1839; (3) Paymentech routed the transactions to the appropriate debit networks, Pl. App. at 461-62, 1402; (4) Paymentech had a contractual relationship with at least one debit network, Pl. App. at 462; (5) Paymentech established a “direct connection” with specific debit networks, Pl. App. at 871-73, 1227, 1543; (6) Paymentech would “reformat” transaction instructions to communicate with the debit networks, Pl. App. at 681-82, 715.

BMC has provided little evidence of any relationship between Paymentech and any financial institutions. There are references to bank identification numbers, or BINs, but no evidence explaining how reference to these numbers shows any relationship between Paymentech

⁶Among the debit networks mentioned were Star, NYCE, and Pulse. Pl. App. at 446.

and the financial institutions.⁷ Paymentech promotional materials state that “Paymentech forwards the [request to authorize a debit card transaction] to the customer’s bank via the NYCE, Pulse© or Star© debit networks. If approved, the customer’s bank account is debited for the amount of the bill payment.” Pl. App. at 1227. BMC provided evidence that Paymentech sends some indicators intended for financial institutions⁸ along with any transactions sent to the debit networks. Pl. App. at 476. BMC argues that Paymentech has a contractual relationship with the debit networks/financial institutions, but only provides evidence of a contractual relationship with the debit networks, not with the financial institutions.

The Court agrees with the Findings. BMC has not shown adequate evidence that Paymentech directed or controlled the debit networks. In its Objections, BMC cites to evidence that shows that Paymentech transmits to the debit networks the debit card number, the “name” (presumably of the account holder), the amount of the purchase, what bill was being paid, a field that states that “there’s going to be no PIN here”, and other “data characteristics”. Pl. App. at 889. BMC does not argue that such transmissions control the debit networks. It argues that such transmissions direct the debit networks, citing *Vermont Teddy Bear*. The Court disagrees. In *Vermont Teddy Bear*, the Court found that if the other entities were to perform steps of the

⁷In fact, BMC’s Objections suggest that the BINs are evidence of a “connection” between Paymentech and the debit networks, not the financial institutions. See Pl. Objs. at 23 (“Paymentech receives BIN (Bank Identification Number) files from the debit networks that are used by Paymentech and its merchant to validate debit card numbers, and works with the debit networks to maintain accurate BIN file records.”)

⁸In his deposition, Larry DePalma, a Former Paymentech Manager for its ACH product line, stated that Paymentech included an “indicator” in the message it sends to the debit networks that goes out to the financial institution. Pl. App. at 476. This indicator shows “how [the message] was originated”. Pl. App. at 476.

process patent, "they must do so according to the instructions [provided] on the [purported infringer's] website".⁹ *Vt. Teddy Bear*, 2005 U.S. Dist. LEXIS 19070, at *16-17. Unlike in *Vermont Teddy Bear*, here, BMC has not shown any evidence of instructions or directions by Paymentech; instead, BMC has only shown evidence of data provided to the debit networks. The Court cannot assume that Paymentech also provides instructions or directions on how to use such data. As a result, the Court finds that BMC has not presented sufficient evidence to create a genuine issue of material fact as to whether it directs or controls the activities of the debit networks. *See Lynch Props.*, 140 F.3d at 625 ("[I]n the absence of proof, a court will not conclude that the nonmoving party could prove the required facts.").

Even if BMC had presented sufficient evidence that Paymentech directed or controlled the debit networks, BMC did not present any evidence that any entity¹⁰ directed or controlled the financial institutions. Again, the mere fact that Paymentech provides data to the financial institutions does not create an issue of fact as to whether Paymentech sent instructions or directions to the financial institutions. The Court finds that BMC has not shown sufficient evidence to create a genuine issue of material fact as to whether it directs or controls the activities of the financial networks. *See Lynch Props.*, 140 F.3d at 625.

⁹For example, the factory tour coupon appears on a web page together with the instructions to "Print this coupon and bring it with you for a free tour of our factory!" *Vt. Teddy Bear*, 2005 U.S. Dist. LEXIS 19070, at *17.

¹⁰At this juncture, the Court need not consider whether BMC must show that the financial institutions were directed or controlled by Paymentech, or whether it would be sufficient to show that the financial institutions were directed or controlled by an entity directed or controlled by Paymentech.

b. "Direct or Control" Is the Proper Legal Standard

BMC claims that the "direct or control" standard is underinclusive. BMC first suggests that requiring evidence of direction or control is particularly inappropriate when (1) the patent clearly contemplates that the method will be performed by multiple actors and the relationship between these entities is the one described in the patent, and (2) it is unlikely in terms of the realities of the business situation that any one person or company would itself physically perform all the steps of the claim. Pl. Objs. at 8-9 (citing *Pay Child Support Online Inc. v. ACS State & Local Solutions, Inc.*, 02-1321, 2004 U.S. Dist. LEXIS 6011, at *25-26 (D. Minn. Apr. 5, 2004); *Free Standing Stuffer, Inc. v. Holly Dev. Co.*, 72 C 1070, 1974 U.S. Dist. LEXIS 11420, at *35 (N.D. Ill. Dec. 24, 1974)). BMC argues that the Court need only find "some connection" between the entities; while proof of direction or control is sufficient, such evidence is not necessary. In support of this argument, BMC cites *Hill*, *Pay Child Support Online*, *Cordis*, *Faroudja*, *Marley*, and *Classen Immunotherapies, Inc. v. King Pharmaceuticals, Inc.*, 403 F. Supp. 2d 451 (D. Md. 2005). Specifically, BMC states that "some connection" may be found if it establishes that: (1) the entities engaged in the same relationship described in the patent (citing *Hill* and *Pay Child Support Online*); (2) the entities work together, jointly, or in concert to perform the patented method steps (citing *Hill*, *Classen*, *Cordis*, and *Faroudja*); (3) a contractual relationship exists between the parties (citing *Hill*, *Classen*, and *Marley*); or (4) the entities interacted during the ordinary course of a commercial business relationship (citing *Cordis* and *Faroudja*).

Having reviewed the Findings and the authorities cited by Plaintiff, the Court agrees with Judge Kaplan and finds that Plaintiff must prove that the party accused of infringement directs or controls the actions of the other entity or entities performing the steps of the process patent.

Even if the Court used BMC's looser standard, however, Plaintiff cannot prevail, because it has not presented sufficient evidence of a connection between Paymentech and the financial institutions. BMC only provides evidence that Paymentech sends some sort of information to the financial institutions through the debit networks. BMC has not cited to, nor can the Court find, any language in the '298 patent providing that the financial institutions should "charg[e] the entered payment amount against the account associated with the entered payment number".

Second, BMC has not presented any evidence that shows that Paymentech and the financial institutions work together, jointly or in concert, to perform the charging step. Without evidence, the Court cannot assume that whenever Paymentech provides "information" to the financial institutions through the debit networks, the financial institutions, in response to such information, are acting in concert with Paymentech to charge the accounts. *See Lynch Props.*, 140 F.3d at 625.

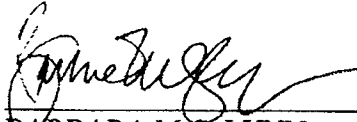
Third, BMC has not provided any evidence of a contractual relationship between Paymentech and the financial institutions. Fourth, BMC has not provided evidence of a "commercial business relationship" between Paymentech and the financial institutions. Even under the approach BMC proposes, it failed to prove the existence of a genuine issue of material fact as to whether there was a sufficient connection between Paymentech and the financial institutions.

CONCLUSION

For the reasons above, the Court accepts the Findings and Recommendation of the United States Magistrate Judge. The Court **GRANTS** Paymentech's Motion for Summary Judgment, and **DENIES** BMC's Motion for Summary Judgment.

SO ORDERED.

May 24, 2006.



BARBARA M.G. LYNN
UNITED STATES DISTRICT JUDGE
NORTHERN DISTRICT OF TEXAS

IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

BMC RESOURCES, INC.

Plaintiff,

VS.

PAYMENTECH, L.P.

Defendant.

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NO. 3-03-CV-1927-M

**FINDINGS AND RECOMMENDATION OF THE
UNITED STATES MAGISTRATE JUDGE**

Plaintiff BMC Resources, Inc. ("BMC") and Defendant Paymentech, L.P. ("Paymentech") have filed cross-motions for summary judgment in this patent case on the issues of infringement and invalidity. Because BMC has failed to prove that Paymentech performs every step of the patented method, either by itself or in connection with other entities, Paymentech is entitled to judgment as a matter of law on BMC's claims of direct infringement by joint performance, infringement through sales activities, and infringement by inducement. In light of that determination, the court should decline to decide whether the patents in-suit are invalid.

I.

BMC is the assignee of two patents covering the method and apparatus for processing debit transactions without a personal identification number ("PIN"). U.S. Patent No. 5,715,298 (Feb. 3, 1998) ("the '298 Patent") and U.S. Patent No. 5,870,456 (Feb. 9, 1999) ("the '456 Patent"). Simply stated, the patented invention, also known as the Telepay system,¹ provides an interface between a standard touch-tone telephone and a debit card network such that real-time bill payment transactions

¹ BMC was formerly known as Telepay.

may be effected by using the telephone keypad. (*See* Plf. MSJ App. at 1-17, 18-34). The invention includes an interactive voice response unit ("IVR") that prompts the caller to enter an access code, account number, debit card number, and payment amount. (*Id.*). Using the invention, the caller may initiate a bill payment transaction, obtain information regarding authorization of the transaction, and inquire about previously processed transactions. (*Id.*).

Paymentech is in the business of assisting clients, typically retail merchants, with processing payment transactions. In 2002, Paymentech began marketing PIN-less debit bill payment services ("DBP") to its existing and potential customers. (*See id.* at 1220-22, 1700-02). The success of that marketing campaign enabled Paymentech to expand its operations to process DBP transactions. (*Id.* at 444-45). When Paymentech processes a DBP transaction, the following sequence occurs:

1. the customer calls the merchant to pay a bill using an IVR;
2. the merchant collects payment information from the customer and sends it to Paymentech;
3. Paymentech routes the information to a participating debit network;
4. the debit network forwards the information to an affiliated financial institution;
5. the financial institution authorizes or declines the transaction and, if authorized, charges the customer's account according to the payment information collected by the merchant;
6. information regarding the status of the transaction travels back from the financial institution to the debit network then, through Paymentech, to the merchant who informs the customer of the status of the transaction.

(*See id.* at 1130-35, 1227; Def. MSJ App. at 1-5).

Upon learning that Paymentech was offering DBP processing services to its clients, BMC demanded that Paymentech enter into a license agreement to use the Telepay system. Paymentech

refused and, as a preemptive measure, filed suit in federal district court seeking a declaration of non-infringement with respect to the BMC patents. BMC counterclaimed for infringement of the '456 Patent. After the parties were realigned, BMC, as plaintiff, amended its complaint to allege direct infringement and infringement by inducement of both the '456 Patent and the '298 Patent. Paymentech, as defendant, filed a counterclaim seeking a declaration of non-infringement and invalidity of the '298 Patent.²

The case is before the court on cross-motions for summary judgment with respect to the issues of infringement and invalidity. The motions have been fully briefed by the parties and are ripe for determination.

II.

Summary judgment is proper when there is no genuine issue as to any material fact and the movant is entitled to judgment as a matter of law. FED. R. CIV. P. 56(c); *Celotex Corp. v. Catrett*, 477 U.S. 317, 322, 106 S.Ct. 2548, 2552, 91 L.Ed.2d 265 (1986). A dispute is "genuine" if the issue could be resolved in favor of either party. *Matsushita Electric Industrial Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586, 106 S.Ct. 1348, 1356, 89 L.Ed.2d 538 (1986). A fact is "material" if it might reasonably affect the outcome of the case. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248, 106 S.Ct. 2505, 2510, 91 L.Ed.2d 202 (1986).

Where, as here, a case is presented by way of cross-motions for summary judgment, each movant has the burden of producing evidence to support its motion. A movant who bears the burden of proof at trial must establish "beyond peradventure all of the essential elements of the claim or

² Paymentech also sought a declaration of non-infringement and invalidity with respect to a third patent, U.S. Patent No. 5,652,786 (Jul. 29, 1997) ("the '786 Patent"). That claim was dismissed for lack of subject matter jurisdiction because Paymentech could not prove it had an "objectively reasonable apprehension" of being sued for infringement of the '786 Patent. *BMC Resources, Inc. v. Paymentech, L.P.*, No. 3-03-CV-1927-M, 2004 WL 981079 (N.D. Tex. May 5, 2004), *rec. adopted*, 2004 WL 1196119 (N.D. Tex. May 28, 2004).

defense to warrant judgment in his favor." *Fontenot v. Upjohn Co.*, 780 F.2d 1190, 1194 (5th Cir. 1986). By contrast, a party seeking summary judgment who does not have the burden of proof at trial need only point to the absence of a genuine fact issue. *See Duffy v. Leading Edge Products, Inc.*, 44 F.3d 308, 312 (5th Cir. 1995). Once the movant meets its initial burden, the non-movant must show that summary judgment is not proper. *See Duckett v. City of Cedar Park*, 950 F.2d 272, 276 (5th Cir. 1992). The parties may satisfy their respective burdens by tendering depositions, affidavits, and other competent evidence. *See Topalian v. Ehrman*, 954 F.2d 1125, 1131 (5th Cir.), *cert. denied*, 113 S.Ct. 82 (1992). All evidence must be viewed in the light most favorable to the party opposing the motion. *See Rosado v. Deters*, 5 F.3d 119, 122 (5th Cir. 1993).

A.

The threshold issue presented by both summary judgment motions involves infringement. BMC alleges that Paymentech directly infringes claim 2 of the '298 Patent and claim 7 of the '456 Patent by participating in and coordinating the performance of PIN-less debit bill payment transactions among itself, its retail merchant customers, various debit networks, and participating financial institutions.³ (*See* Plf. MSJ Br. at 3). Paymentech denies liability under this theory of joint infringement because there is no evidence it performs each and every step of the patented method either by itself or in connection with any other entity or entities. (*See* Def. MSJ Br. at 7-13). As the party with the burden of proving infringement at trial, BMC must establish the essential elements of its infringement claim "beyond peradventure" to obtain summary judgment and must come forward with competent evidence of infringement to create a genuine issue of material fact to defeat summary judgment in favor of Paymentech. *See Novartis Corp. v. Ben Venue Laboratories, Inc.*,

³ Claim 2 of the '298 Patent and claim 7 of the '456 Patent are dependent claims which incorporate the PIN-less debit bill payment method described in claim 1 of the '298 Patent and claim 6 of the '456 Patent, respectively.

271 F.3d 1043, 1046 (Fed. Cir. 2001); *Vivid Technologies, Inc. v. American Science & Engineering, Inc.*, 200 F.3d 795, 807 (Fed. Cir. 1999).

1.

Both patents in-suit describe a series of steps, or method, for processing PIN-less debit bill payment transactions. Claim 2 of the '298 Patent claims:

A method of paying bills using a telephone connectable to at least one remote payment card network via a payee's agent's system, wherein a caller places a call using said telephone to initiate a spontaneous payment transaction that does not require pre-registration, to a payee, the method comprising the steps of:

-- [1] prompting the caller to enter an account number using the telephone, the account number identifying an account of a payor with the payee in connection with the payment transaction;

-- [2] responsive to entry of an account number, determining whether the entered account number is valid;

-- [3] prompting the caller to enter a [debit card number] using the telephone, the [debit card number] being selected at the discretion of the caller from any one of a number of credit or debit forms of payment;

-- [4] responsive to entry of the [debit card number], determining whether the entered [debit card number] is valid;

-- [5] prompting the caller to enter a payment amount for the payment transaction using the telephone;

-- responsive to a determination that a payment amount has been entered and further responsive to a determination that the entered account number and [debit card number] are valid, and during the call:

-- [6, 7] accessing a remote payment network associated with the entered [debit card number], the accessed remote payment network determining, during the call, whether sufficient available credit or funds exist in an account associated with the entered [debit card number] to complete the payment transaction;

-- [8, 9, 10, 11] responsive to a determination that sufficient available credit or funds exist in the associated account, charging the entered payment amount against the account associated with the entered [debit card number], adding the entered payment amount to an account associated with the entered account number, informing the caller that the payment transaction has been authorized, and storing the account number, [debit card number] and payment amount in a transaction log file of the system during the call; and

-- [12, 13] responsive to a determination that sufficient available credit or funds do not exist in the associated account, informing the caller during the call that the current payment transaction has been declined and terminating the current payment transaction.

(Plf. MSJ App. at 17). Claim 7 of the '456 Patent claims:

A method of paying bills using a telecommunications network line connectable to at least one remote payment card network via a payee's agent's system, wherein a caller begins session using a telecommunications network line to initiate a spontaneous payment transaction to a payee, the method comprising the steps of:

-- [1] prompting the caller to enter a [PIN-less credit or debit card number] selected from one or more choices of credit or debit forms of payment;

-- [2] prompting the caller to enter a payment amount for the payment transaction;

-- [3, 4, 5, 6, 7] accessing a remote payment network associated with the entered [PIN-less credit or debit card number], the accessed remote payment network determining, during the session, whether sufficient available credit or funds exist in an account associated with the entered [PIN-less credit or debit card number] to complete the payment transaction, and upon a determination that sufficient available credit or funds exist in the associated account, charging the entered payment amount against the account associated with the entered [PIN-less credit or debit card number], adding the entered payment amount to an account associated with the entered account number, and storing the account number, [PIN-less credit or debit card number] and payment amount in a transaction file of the system.

(*Id.*)

2.

Section 271(a) of the Patent Act states:

Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.

35 U.S.C. § 271(a). Where the patented invention is a method, such as the PIN-less debit bill payment method covered by the '298 Patent and the '456 Patent, direct infringement occurs only when all steps of the claimed method are performed. *See NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1318 (Fed. Cir. 2005), *cert. denied*, 2006 WL 152096, 74 USLW 3371 (U.S. Jan. 23, 2006) (No. 05-763) (distinguishing "between a claim to a product, device, or apparatus, all of which are tangible items, and a claim to a process, which consists of a series of acts or steps"); *Joy Technologies, Inc. v. Flakt, Inc.*, 6 F.3d 770, 775 (Fed. Cir. 1993) (holding that "[a] method claim is directly infringed only by one practicing the patented method"). Typically, the accused infringer must perform every step of the patented method to be liable for direct infringement. *See Faroudja Laboratories, Inc. v. Dwin Electronics, Inc.*, No. 97-20010-SW, 1999 WL 111788 at *3 (N.D. Cal. Feb. 24, 1999), *citing General Foods Corp. v. Studiengesellschaft Kohle mbH*, 972 F.2d 1272, 1274-75 (Fed. Cir. 1992). However, some courts have suggested that a party may directly infringe a method patent where various steps of the patent are performed by distinct entities. *See Marley Mouldings Ltd. v. Mikron Industries, Inc.*, No. 02-C-2855, 2003 WL 1989640 at *2 (N.D. Ill. Apr. 30, 2003) (collecting cases). But even in those cases, courts appear to require a close relationship or connection between the accused infringer and the other entity such that the party accused of infringement directs or controls the actions of the other party. *See, e.g. id.* at *3 (accused infringer purchased "made to order" component from third-party manufacturer based on specifications dictated

by accused infringer); *Cordis Corp. v. Medtronic AVE, Inc.*, 194 F.Supp. 2d 323, 349-50 (D. Del. 2002), *rev'd on other grounds*, 339 F.3d 1352 (Fed. Cir. 2003), *cert. denied*, 124 S.Ct. 1426 (2004) (close relationship found between accused infringer and third-party doctors where accused infringer recruited doctors to participate in clinical trials, solicited feedback and gave instructions to doctors on products, and communicated with doctors on a daily basis); *see also Mobil Oil Corp. v. Filtrrol Corp.*, 501 F.2d 282, 291-92 (9th Cir. 1974) (questioning whether a method claim can be infringed when two separate entities perform different operations and neither entity has control of the other's activities).

BMC concedes that Paymentech does not, by itself, perform at least seven of the 13 steps of the method described in claim 2 of the '298 Patent and four of the seven steps of the method described in claim 7 of the '456 Patent:⁴

1. prompting the caller to enter an account number;
2. prompting the caller to enter a PIN-less credit or debit card number;
3. prompting the caller to enter a payment amount;
4. determining whether sufficient available credit or funds exist in the PIN-less credit or debit card account;
5. charging the entered payment amount against the PIN-less credit or debit card account;
6. adding the entered payment amount to an account associated with the entered account number; and
7. informing the caller that the payment transaction has been authorized or declined and terminating the payment transaction.

⁴ All seven steps of the method described in claim 7 of the '456 Patent are included in claim 2 of the '296 Patent. The main difference between the two patents is that the '456 Patent covers both PIN-less credit and debit card numbers, whereas the '296 Patent covers only debit card numbers.

(Plf. MSJ App. at 476-78, RFA Nos. 1, 3, 5, 7, 8, 11, 12, 13). Both parties agree that at least part of this seven-step process is performed by retail merchants, debit networks, and participating financial institutions. (See Plf. MSJ Br. at 11-12, 18; Def. MSJ Br. at 8-9; Plf. Repl. Br. at 5). Nevertheless, BMC maintains that Paymentech is liable for direct infringement because it "sets up, coordinates, participates in, and works in concert with the merchants and debit networks to process DBP transactions that use BMC's patented invention." (See Plf. MSJ at 1).

The summary judgment evidence shows that Paymentech works closely with its merchant customers in developing IVR scripts used to "prompt" callers to enter their account numbers, debit card numbers, and payment amounts and to "inform" the callers whether their payment transactions have been authorized or declined. (See Plf. MSJ App. at 163, RFA No. 1). In some instances, Paymentech reviews scripts drafted by the merchant, provides feedback, and recommends changes. (*Id.* at 1592-93, 1711-16). In other cases, Paymentech provides the merchant with copies of scripts used by other customers and helps the merchant customize the script. (*Id.* at 1207). Paymentech also communicates with the debit networks on behalf of its merchant customers and provides merchants with a comprehensive computer user guide and ongoing technical assistance for processing DBP transactions. (See *id.* at 389, 448, 917, 957-60, 981-82, 1072-80, 1096-97, 1135, 1160, 1264-1401, 1646-49, 1657-61, 1706-07, 2298-2300). This evidence, viewed in the light most favorable to BMC, is sufficient to create a genuine issue of material fact as to whether Paymentech directs or controls the "prompting" and "informing" steps performed by its retail merchants.

The court reaches a different conclusion with respect to the relationship between Paymentech, the debit networks, and participating financial institutions. As BMC acknowledges in its brief, three essential steps of the patented method are performed by remote payment networks and not by the Telepay system: (1) "determining" whether sufficient funds exist in the PIN-less credit or debit card

account; (2) "charging" the payment amount against the account; and (3) "adding" the payment amount to the merchant's account. (See Plf. MSJ Br. at 18). Although there is no direct evidence that Paymentech controls the processing of DBP transactions by the debit networks and financial institutions, or works together with those entities to practice the method covered by the patents, BMC attempts to create a fact issue by pointing to evidence of a contractual relationship between Paymentech and each of its debit networks. (Plf. MSJ Br. at 12; *see also* Plf. MSJ App. at 462). The court initially observes that none of the contracts between Paymentech and its various debit networks--Star, NYCE, and Pulse--have been offered into evidence. Instead, BMC appears to argue that the mere fact these contracts exist is evidence that Paymentech "works in concert" or "works jointly together" with the debit networks to infringe the patents in-suit.

The inference BMC asks the court to draw from this evidence does not establish "beyond peradventure" that Paymentech directs or controls the alleged infringing activities of these other entities. Nor is the evidence sufficient to create a genuine issue of material fact for trial. At most, the summary judgment evidence shows that Paymentech has some kind of contractual relationship with the debit networks. No court has ever found direct infringement based on the type of arms-length business transaction present here. *See generally*, Mark A. Lemley, et al., *Divided Infringement Claims*, 33 AIPLA Q.J. 255, 281 (2005). Rather, the cases appear to require an agency relationship or evidence that the accused infringer directs or controls the infringing activities of the other parties. *See Marley Mouldings*, 2003 WL 1989640 at *3; *Cordis Corp.*, 194 F.Supp.2d at 349-50. *Cf. Applied Interact, LLC v. Vermont Teddy Bear Co., Inc.*, No. 04 Civ. 8713-HB, 2005 WL 2133416 at *8 (S.D.N.Y. Sept. 9, 2005) (suggesting that requisite connection may exist between accused infringer and its internet customers because customers followed company's web site instructions to "click here to print coupon"). The summary judgment record is totally devoid of such

evidence. To the contrary, the evidence suggests that the debit networks follow their own rules and regulations for processing DBP transactions, and that Paymentech can be fined if a merchant fails to comply with those regulations. (See Plf. MSJ App. at 1132-34).

BMC has failed to adduce any evidence that Paymentech performs the "determining," "charging," and "adding" steps of the '298 Patent and the '456 Patent, either by itself or in connection with its debit networks and participating financial institutions. Accordingly, Paymentech is entitled to summary judgment on BMC's theory of direct infringement by joint performance.

3.

The resolution of the joint performance issue is dispositive of BMC's method claims under the theories of infringement through sales activities and infringement by inducement. In *NTP*, the Federal Circuit examined the language and legislative history of section 271(a) in an effort to determine whether a method claim can be infringed by a sale or an offer to sell. *NTP*, 418 F.3d at 1318-21. Although the court stopped short of holding that a method claim may never be infringed under the "sells" and "offers to sell" prongs of the statute, it concluded that "the legislative history of section 271(a) indicates Congress's understanding that method claims could only be directly infringed by use." *Id.* at 1320. Stated differently, performance of only some steps of a patented method "cannot be considered to be selling or offering to sell the invention covered by the asserted method claims." *Id.* at 1321; see also *Transocean Offshore Deepwater Drilling, Inc. v. GlobalSantaFe Corp.*, 400 F.Supp.2d 998, 1008-12 (S.D. Tex. 2005). BMC cannot prove direct infringement under this theory because Paymentech does not perform the "determining," "charging," and "adding" steps of the patented method, either by itself or in connection with its debit networks and participating financial institutions. Without proof of direct infringement, there can be no claim for infringement by inducement. See *Dynacore Holdings Corp. v. U.S. Phillips Corp.*, 363 F.3d

1263, 1277 (Fed. Cir. 2004) (failure to prove direct infringement is fatal to claims of indirect infringement). Paymentech is entitled to summary judgment as to these infringement claims.

B.

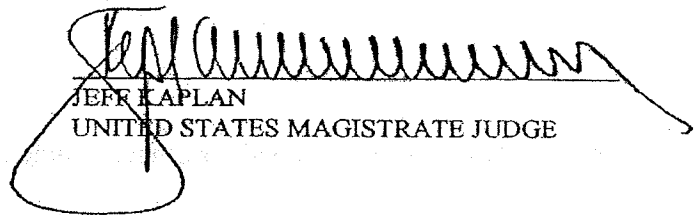
By way of counterclaim, Paymentech seeks a declaratory judgment that the '298 Patent is invalid due to lack of enablement, anticipation, and obviousness. A federal district court has broad discretion in deciding whether to entertain a declaratory judgment action on the issue of invalidity after determining that the patent in-suit has not been infringed. See *Liquid Dynamics Corp. v. Vaughan Co.*, 355 F.3d 1361, 1370-71 (Fed. Cir. 2004); *Nystrom v. TREX Co.*, 339 F.3d 1347, 1351 (Fed. Cir. 2003); *Phonometrics, Inc. v. Northern Telecom Inc.*, 133 F.3d 1459, 1468 (Fed. Cir. 1998). Now that the infringement question has been answered, no actual controversy remains between BMC and Paymentech and it is unnecessary to decide the issue of invalidity. See *Nestier Corp. v. Menasha Corp.-Lewisystems Division*, 739 F.2d 1576, 1580-81 (Fed. Cir. 1984), *cert. denied*, 105 S.Ct. 1756 (1995), quoting *Leesona Corp. v. United States*, 530 F.2d 896, 906 n. 9 (Ct. Cl. 1976) ("Where . . . noninfringement is clear and invalidity is not plainly evident, it is appropriate to treat only the infringement issue."). Under these circumstances, Paymentech's counterclaim should be dismissed without prejudice. See *Dolby Laboratories, Inc. v. Lucent Technologies Inc.*, No. C-01-20709-JF, 2005 WL 2171921 at *2 (N.D. Cal. Sep. 6, 2005) (dismissing invalidity claim as moot where court determined on summary judgment that patent was not infringed); *Digital Privacy, Inc. v. RSA Sec., Inc.*, 199 F.Supp.2d 457, 458 (E.D. Va. 2002) (same); *MLMC, Ltd. v. Airtouch Communications, Inc.*, 172 F.Supp.2d 557, 567 (D. Del. 2001) (same); *Angelo Mongiello's Children, LLC v. Pizza Hut, Inc.*, 70 F.Supp.2d 196, 208 (E.D.N.Y. 1999) (same).

RECOMMENDATION

For these reasons, Paymentech's motion for summary judgment should be granted and BMC's motion for partial summary judgment should be denied on the issue of infringement. The court should rule, as a matter of law, that Paymentech does not perform every step of the patented method, either by itself or in connection with other entities, and therefore does not infringe the '298 Patent or the '456 Patent. In light of that ruling, the court should dismiss without prejudice Paymentech's counterclaim for a declaratory judgment of invalidity with respect to the '298 Patent.

A copy of this report and recommendation shall be served on all parties in the manner provided by law. Any party may file written objections to the recommendation within 10 days after being served with a copy. *See* 28 U.S.C. § 636(b)(1); FED. R. CIV. P. 72(b). The failure to file written objections will bar the aggrieved party from appealing the factual findings and legal conclusions of the magistrate judge that are accepted or adopted by the district court, except upon grounds of plain error. *See Douglass v. United Services Automobile Ass'n*, 79 F.3d 1415, 1417 (5th Cir. 1996).

DATED: February 9, 2006.


JEFF KAPLAN
UNITED STATES MAGISTRATE JUDGE

U.S. Patent
5,870,456



US005870456A

United States Patent [19]

[11] Patent Number: **5,870,456**

Rogers

[45] Date of Patent: **Feb. 9, 1999**

[54] **AUTOMATED INTERACTIVE BILL PAYMENT SYSTEM USING DEBIT CARDS**

5,652,786 7/1997 Rogers .
5,715,298 2/1998 Rogers .

[75] Inventor: **Catherine R. Rogers, Dallas, Tex.**

OTHER PUBLICATIONS

[73] Assignee: **Telepay, Inc., Dallas, Tex.**

Information Networks, V6, No. 8, Jul. 26, 1993, *Scanfone Alive and Well*; Bell Atlantic Readies for Rollout. Tanaka, David; *Interac Rools Out Debit Card System*; Computing Canada vol. V18, Issue No. 21, Oct. 13, 1992. Blackwell, Gerry; *Computing In Banking; Technology is the Weapon*; Computing Canada, V16, p. 59, Oct. 11, 1990. *The Score Card Evens in a POS Title Fight*; Bank Network News Jun. 11, 1992, VIONZ.

[21] Appl. No.: **946,272**

[22] Filed: **Oct. 7, 1997**

(Under 37 CFR 1.47)

Related U.S. Application Data

[63] Continuation of Ser. No. 787,981, Jan. 22, 1997, Pat. No. 5,715,298.

Primary Examiner—Wing F. Chan
Attorney, Agent, or Firm—Haynes and Boone, L.L.P.

- [51] Int. Cl.⁶ **H04M 11/00**
- [52] U.S. Cl. **379/91.01; 705/40**
- [58] Field of Search 379/91.01, 91.02, 379/93.02, 93.01, 93.12, 93.13, 93.26, 93.28, 143, 144; 235/375, 379, 380; 705/39, 40

[57] ABSTRACT

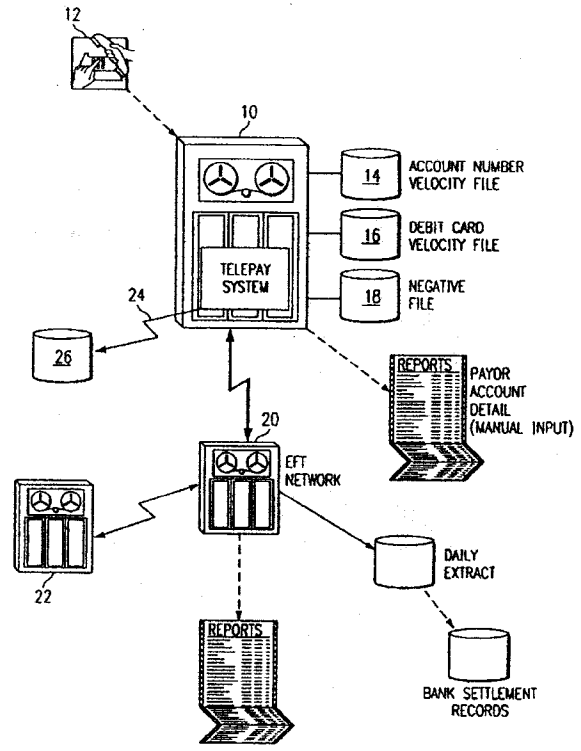
Method and apparatus for processing payment transactions using debit card numbers without the requirement of a personal identification number (PIN) is disclosed. A telepay system of the present invention provides an interface between a standard touchtone telephone and at least one debit card network such that real-time bill payment transactions may be effected using a keypad of the telephone. The telepay system includes an interactive voice response unit for prompting a payor to enter an access code, account number, debit card number and payment amount and for informing the user of the status of the transaction. Real-time processing of transactions is provided through use of debit card networks, rather than the Automated Clearing House. The telepay system is also capable of performing settlement functions and processing inquiries by payees of the system regarding previously processed transactions.

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8 Claims, 9 Drawing Sheets



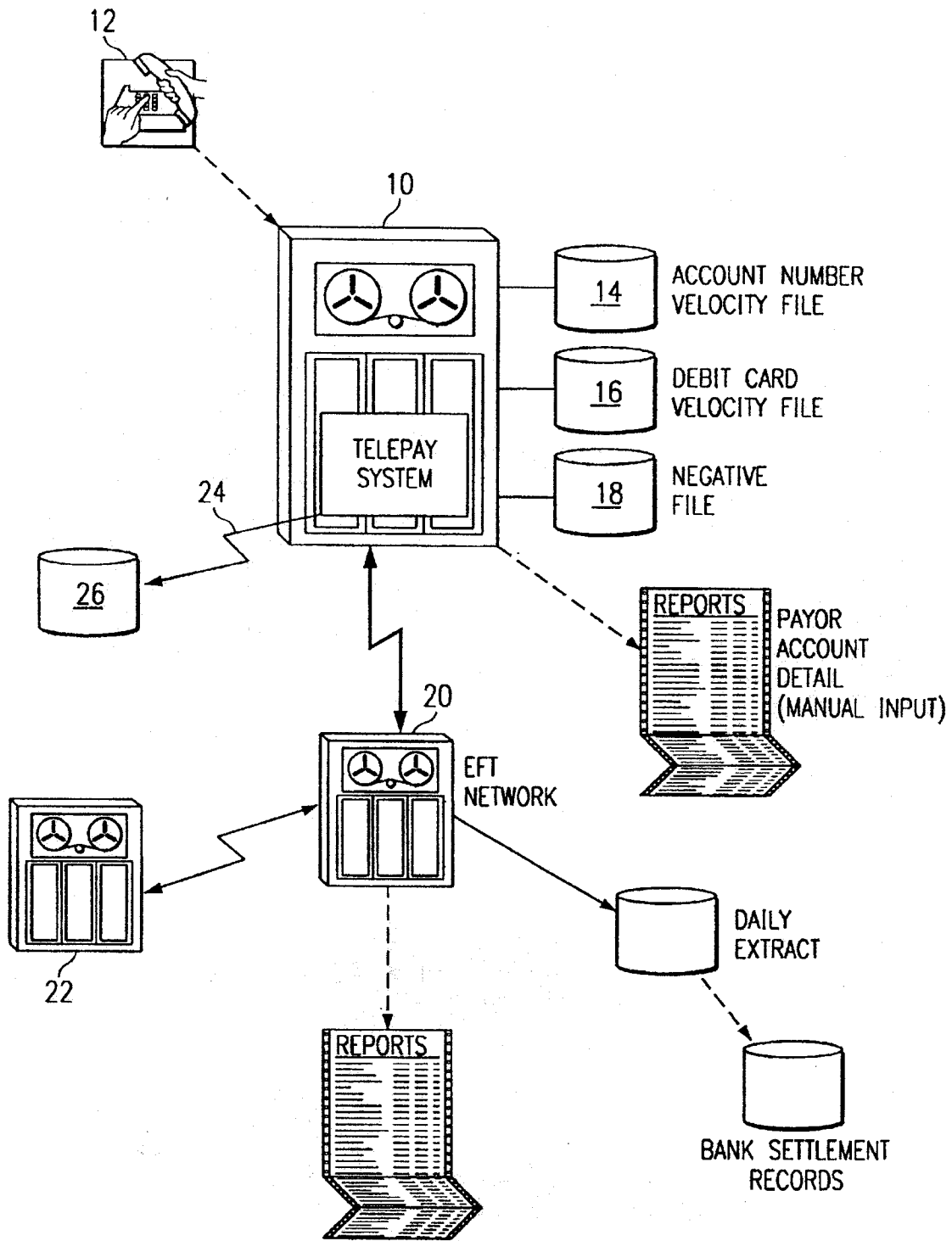


Fig. 1

BILL PAYMENT TRANSACTION PROCESS

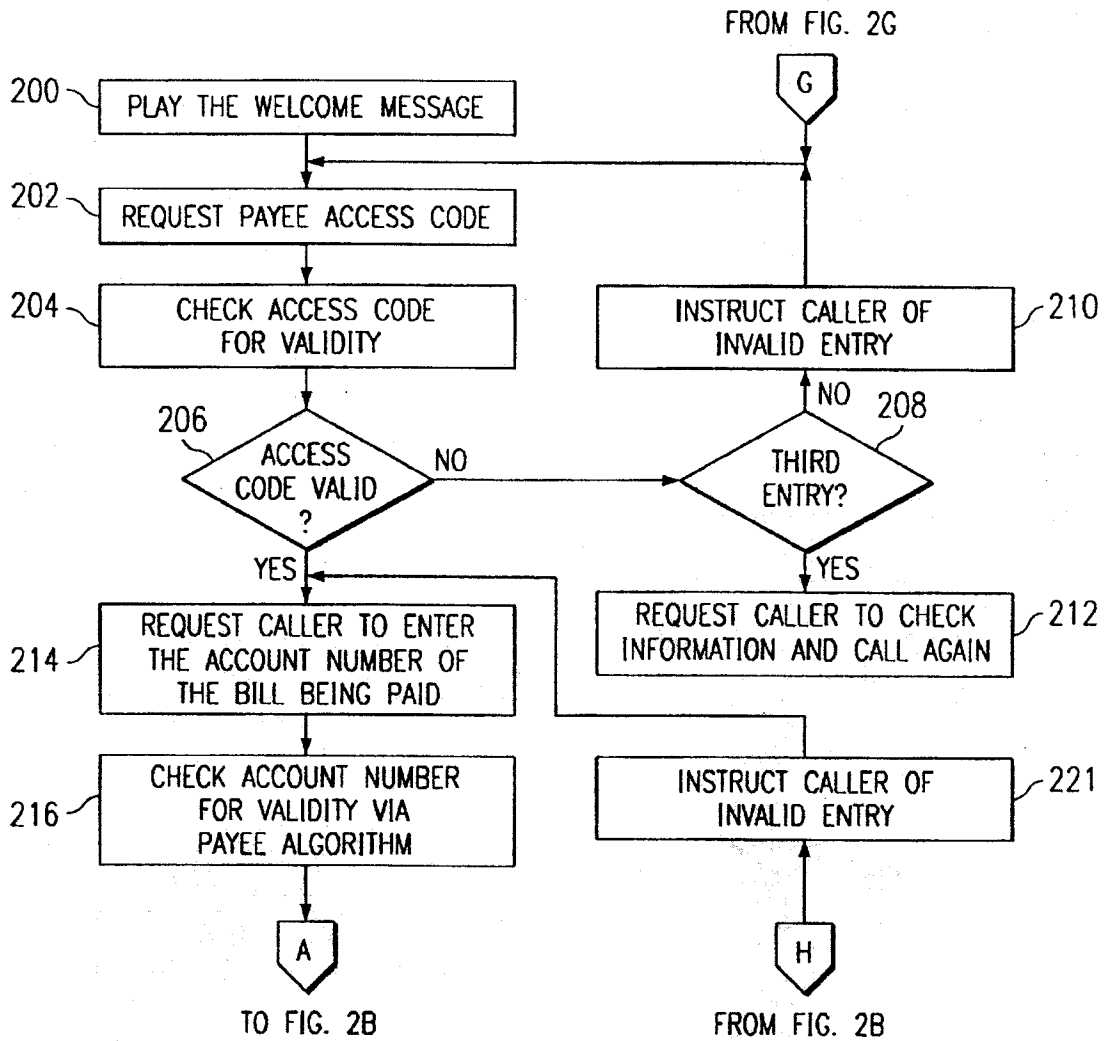


Fig. 2A

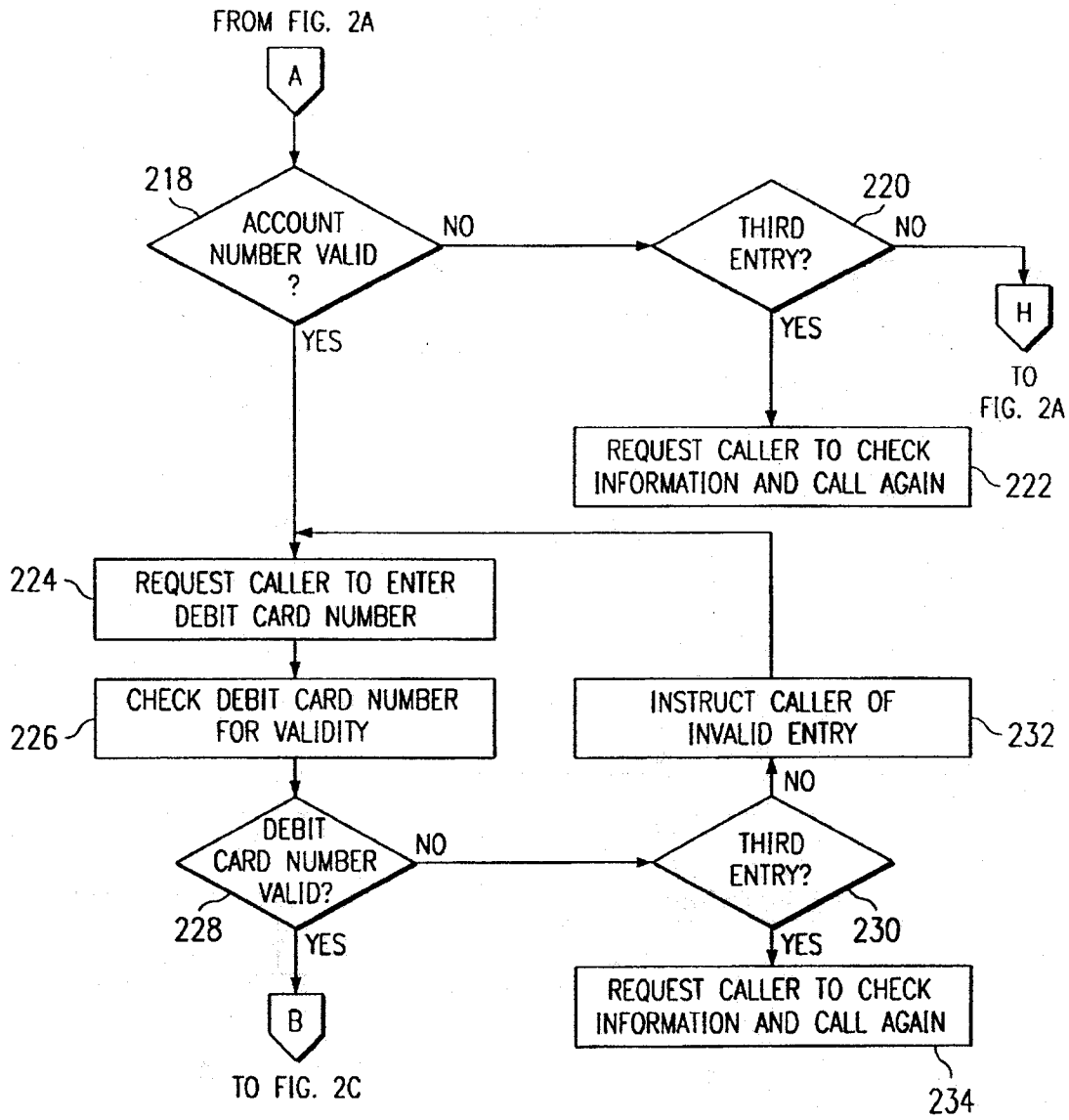


Fig. 2B

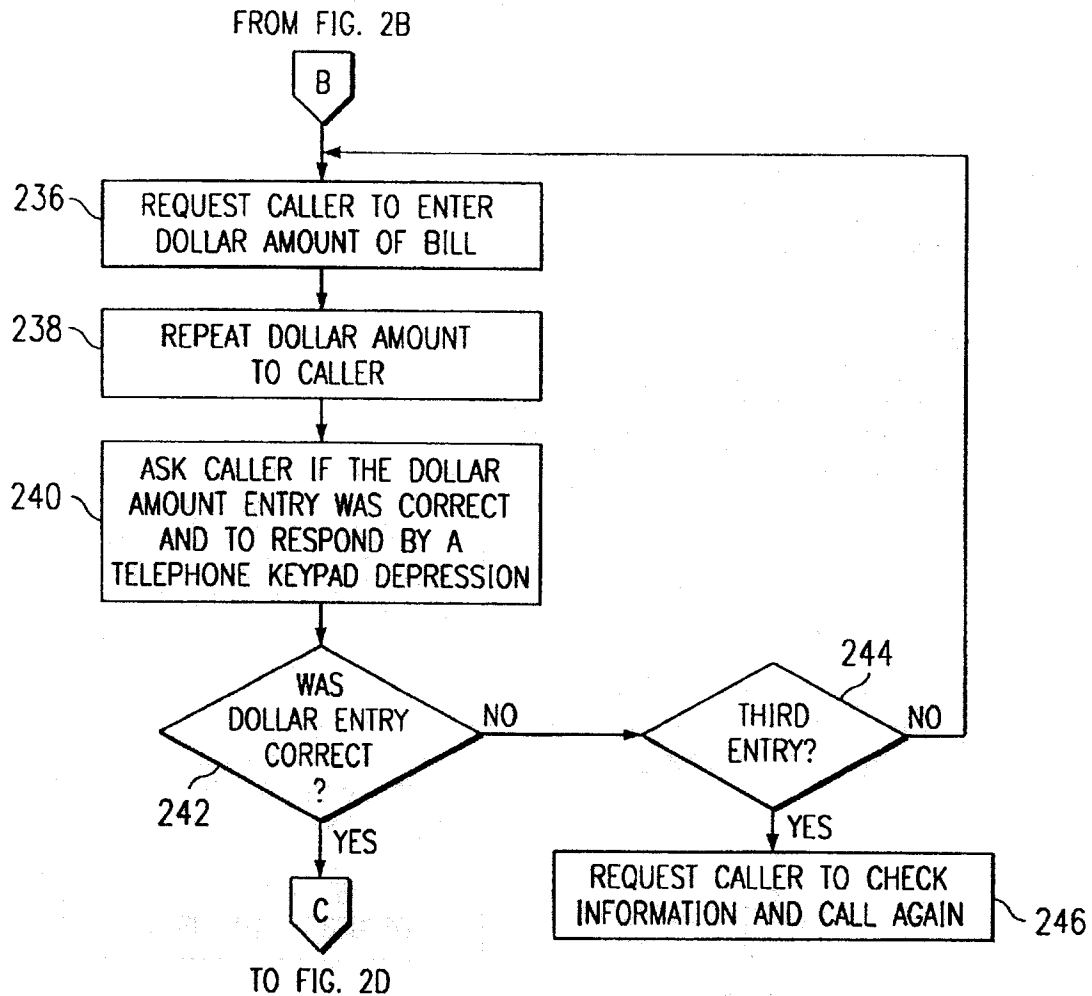


Fig. 2C

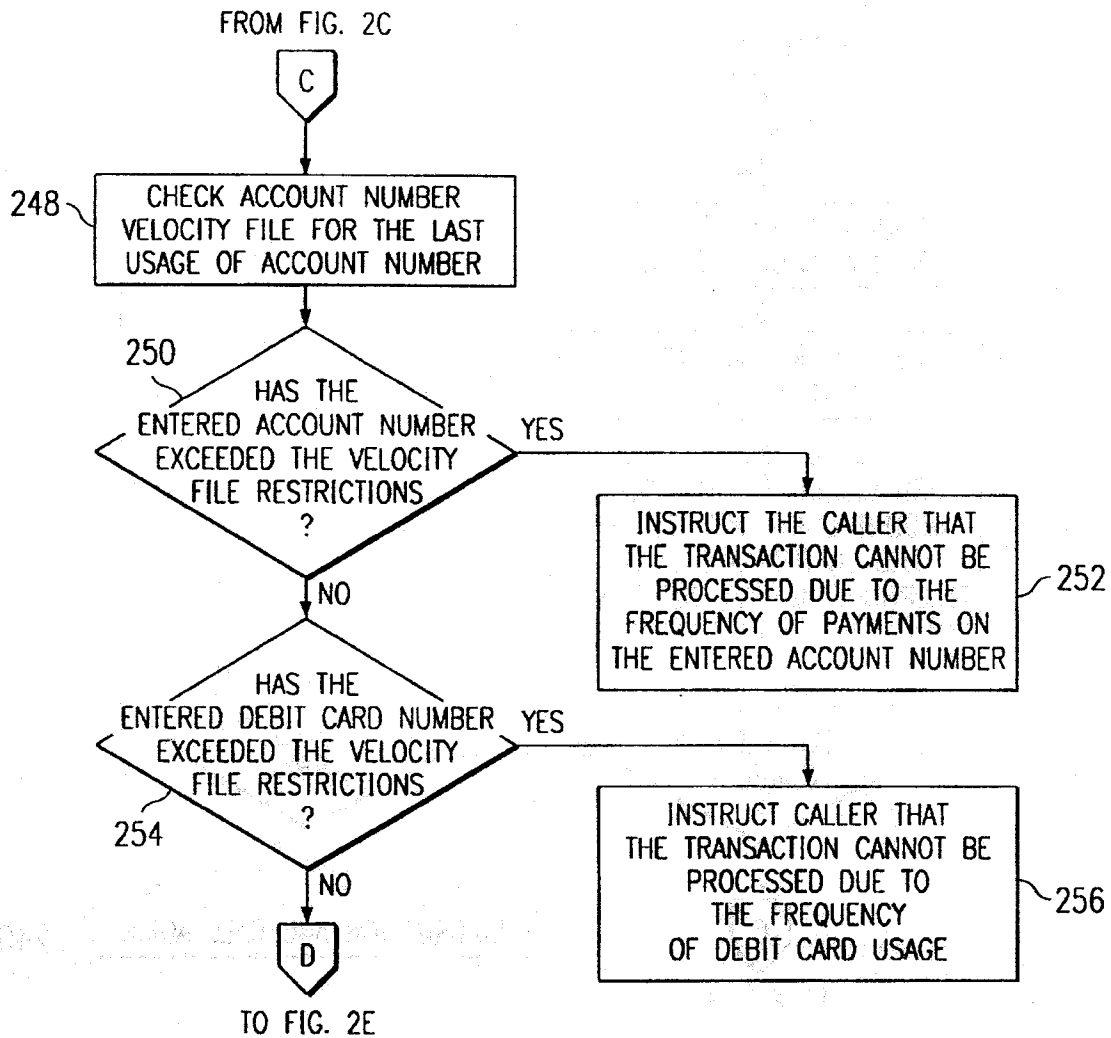


Fig. 2D

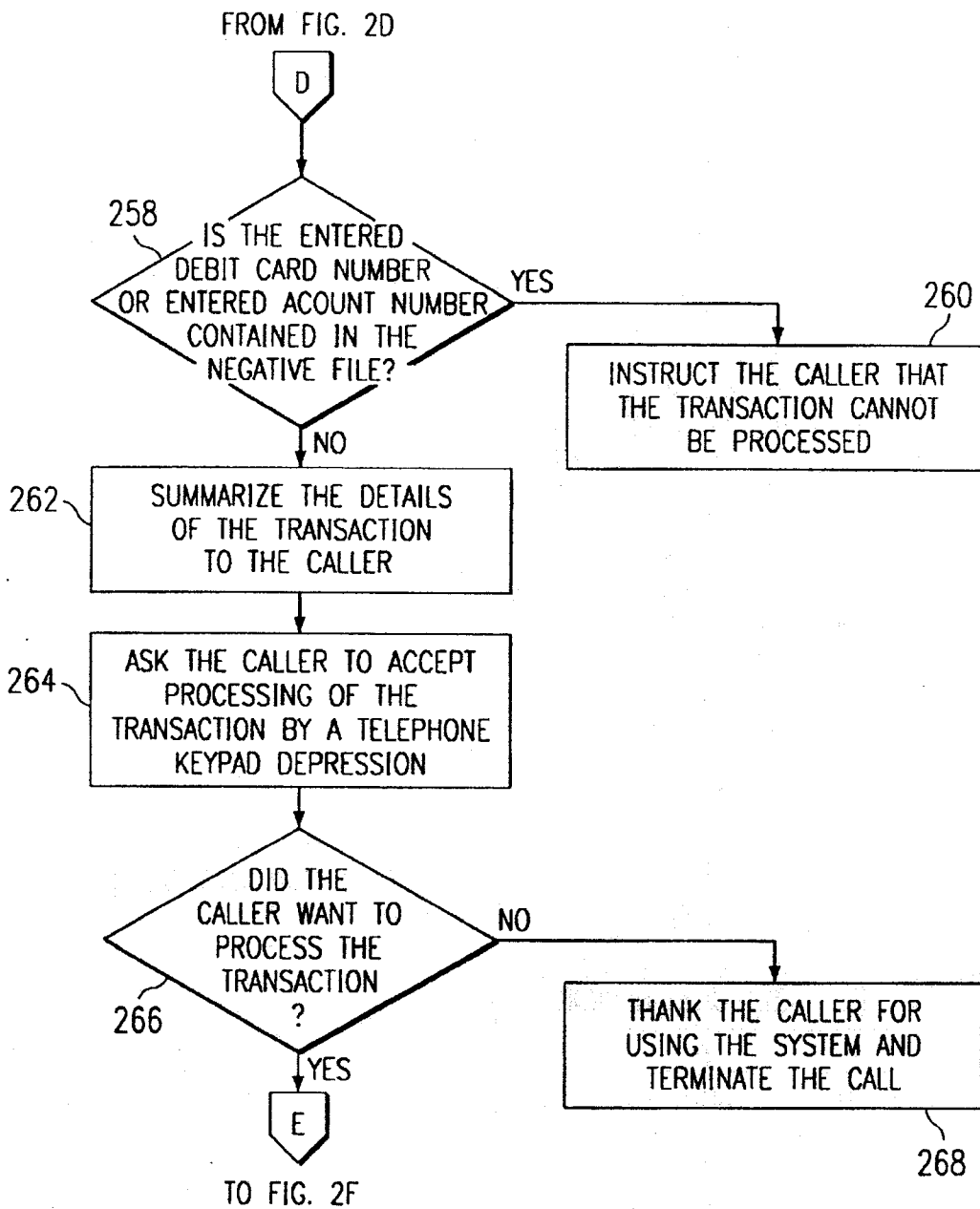


Fig. 2E

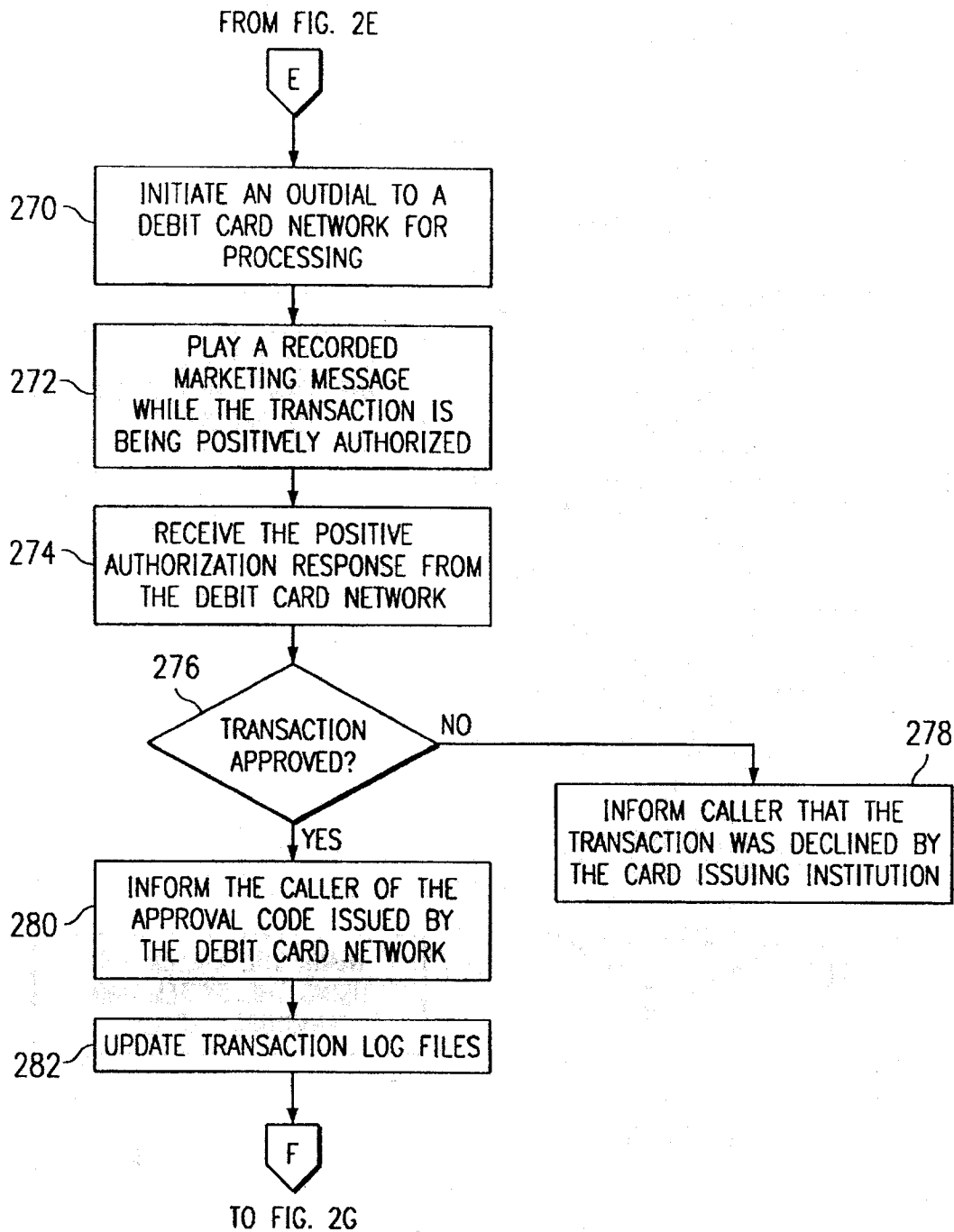
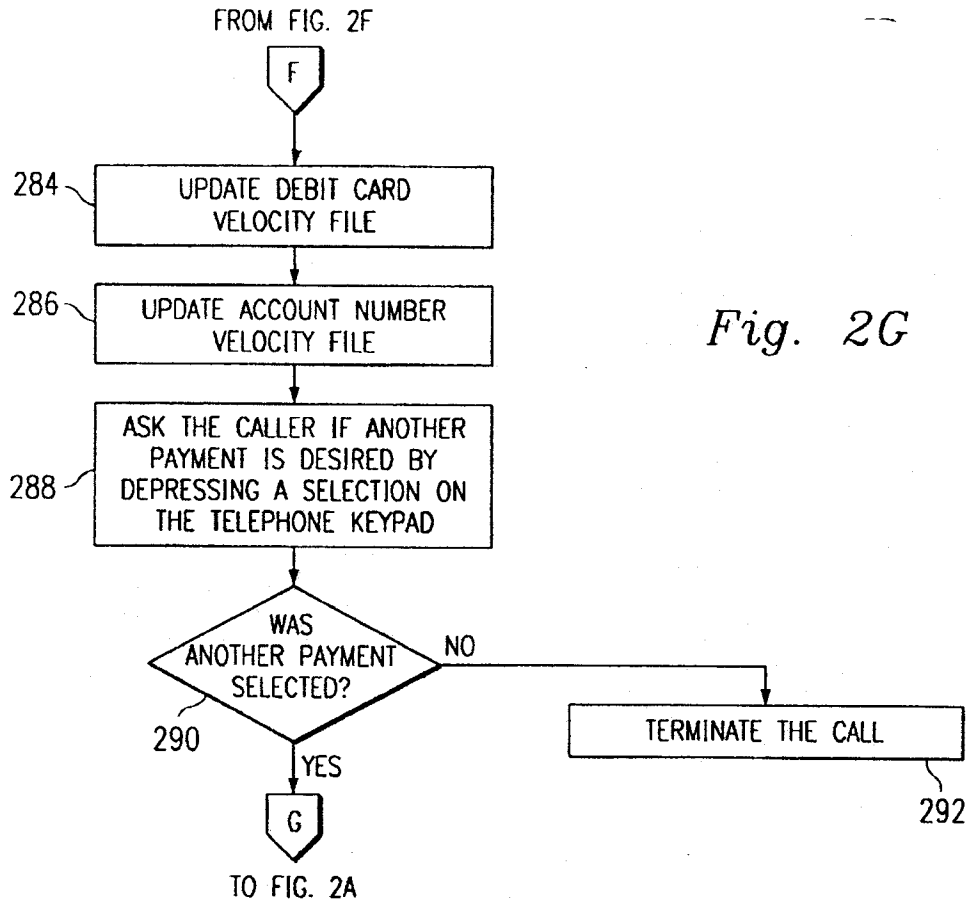
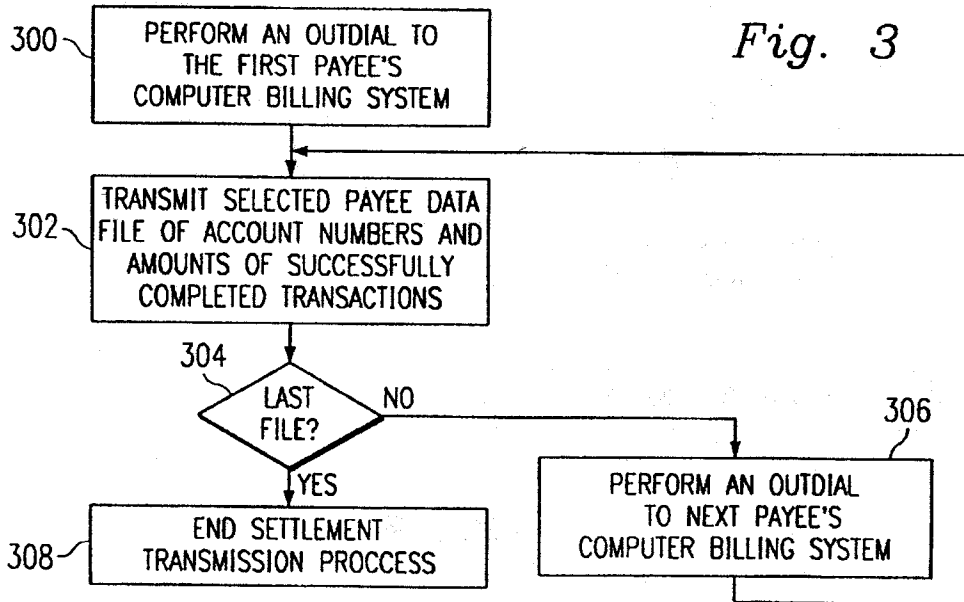


Fig. 2F



SETTLEMENT PROCESS



PAYEE INQUIRY

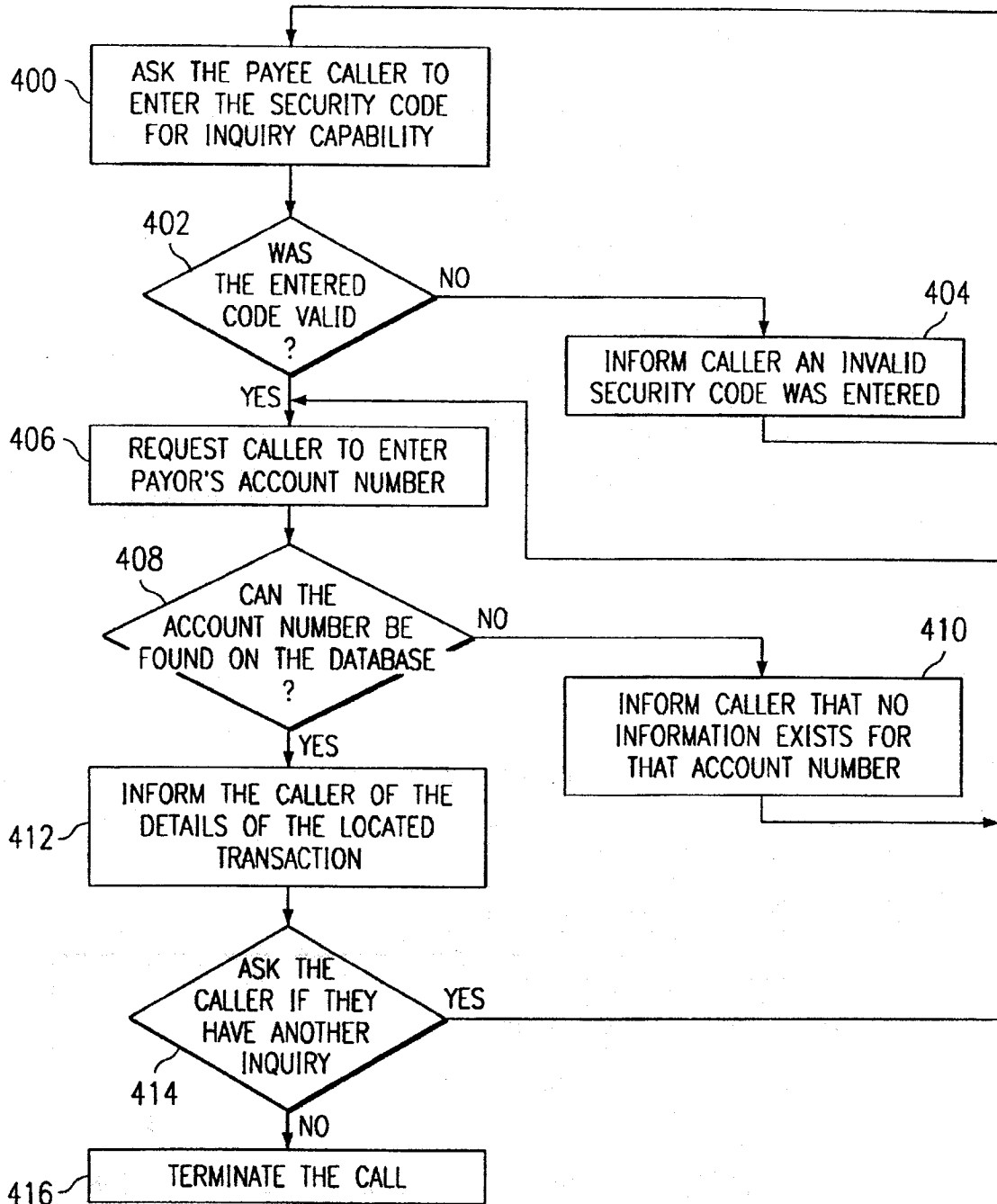


Fig. 4

AUTOMATED INTERACTIVE BILL PAYMENT SYSTEM USING DEBIT CARDS

This is a continuation of application Ser. No. 08/797,981 filed on Jan. 22, 1997, now U.S. Pat. No. 5,715,298.

TECHNICAL FIELD

The invention relates generally to systems for electronic bill payment systems and, more particularly, to a universal, real-time bill payment system method and system that uses debit (ATM) cards without the requirement of a PIN (personal identification number) in conjunction with touch tone telephones to initiate consumer bill payments electronically and provide for the elimination of paper checks and the heretofore use of the Automated Clearing House of the U.S. Banking System to settle individual items.

BACKGROUND OF THE INVENTION

Bill payment by telephone has been available primarily from financial institutions for approximately 15 years. Heretofore, this technology allowed a customer of a bank, savings and loan, or credit union to pay any pre-registered bill with the use of a touch tone telephone and that financial institutions interactive voice response unit (provided that they offered the service). The customer would first have to select a financial institution that offered the service, request to participate in the service, send in a voided check, and then provide a manual list of all the bills that were desired to be paid using this system. In addition, a signature authorization card would be to signed and archived by the financial institution. The financial institution would then manually input all of this information into their computer, and then advise the customer that system access was then available. This process usually took up to two weeks to complete.

Once activated, the customer would then have the capability to call the financial institution and input payment instructions in conjunction with a touch tone telephone and reference each payee by a number that was assigned by the financial institution. This process of bill payment would allow the customer to pay bills by having the bank then issue an "electronic check" to the designated payee. This "electronic" document would then be presented to the Automated Clearing House of the U. S. Banking System for processing and clearing. In reality the process was identical to the processing of a paper check, with the only exception being that there was not any paper involved in the transaction. The payment could still "bounce" and be returned for non-sufficient funds since there was no actual verification on the customer's account balance to insure that sufficient funds were on deposit to cover the transaction. In addition, all in place check clearing time requirements were still in place, as it took typically at least 3-5 days to clear. Until clearing was realized the recipient of the funds never had actual use of the funds used for payment. If a new debt was incurred, it would have to be pre-registered on the system in order to utilize this "electronic" capability. If a customer changed financial institutions, the whole process of pre-registering all debts, signature cards, and a voided check would have to be repeated. Existing pay by phone systems offered some convenience to the user, but were cumbersome to administer and usage was never widespread.

As "home banking" gained more interest, many companies developed special purpose telephones with visual displays and "swipe card readers" that the consumer could purchase that would allow the use of a debit (ATM) card to

basically achieve the same purpose as was evident in previously implemented systems (for the purposes of brevity in this disclosure the term "debit card" shall be construed to mean both debit and credit card). The only difference is that the consumer could now "swipe" the debit card through the reader that was part of the telephone. The Automated Clearing House of the U. S. Banking System was still used to process payments, and all pre-registration and signature cards were still required. All "electronic check" clearing time requirements were still needed, and the transaction would still be returned for non-sufficient funds. If a service offered a specialized telephone and bypassed the Automated Clearing House, using debit card networks, the debit card used to process the transaction required a PIN. There was a natural resistance to the purchase of special telephones that proved to be relatively expensive, in addition to the monthly fees necessary to remain a customer of this service.

As personal computers began to proliferate, many systems became available that would allow bill payment in conjunction with a third party service and a personal computer owned by the user with that third party software loaded into it, such as the Prodigy system. Still, however, all of the aforementioned limitations still applied to these personal computer based systems.

In summary, these home banking systems shared many common drawbacks. For example, the burden of pre-registration and the listing of bills to be paid was borne by the consumer. The system required the processing of transaction in the same manner as a paper check, or an electronic check through the Automated Clearing House of the U.S. Banking System. The system presented the possibility that a transaction could be returned for non-sufficient funds reasons. In addition, a clearing time for each transaction of 3-5 days. Furthermore, in many cases, the prior art home banking systems required the use of specialized equipment by the customer (such as special purpose telephones equipped with electronic card readers or encryption devices), or the financial institution offering services to its customer base.

Moreover, although it is known in the field of accounting to call and manually, in conjunction an operator, verify that a payor had remitted a bill, there is no capability for the recipient of the funds (payee) to electronically immediately and positively inquire as to payment status after it was electronically authorized by the a debit card network. Therefore, what is needed is a universal, real-time bill payment system method and system that uses debit (ATM) cards without the requirement of a PIN (personal identification number) in conjunction with touch tone telephones to initiate consumer bill payments electronically and provide for the elimination of paper checks, as well as the use of the Automated Clearing House.

SUMMARY OF THE INVENTION

The foregoing problems are solved and a technical advance is achieved by method and apparatus of the present invention for an improved universal bill payment system. In a departure from the art, bills may be paid using a telephone connectable to at least one remote debit card network via a telepay system.

In a preferred embodiment, the method of the present invention comprises steps of prompting a caller to enter an access code using a keypad of said telephone, said access code identifying a current payment transaction; responsive to entry of an access code, determining whether said entered access code is valid; prompting said caller to enter an account number using said telephone keypad said account

number identifying a payee in connection with said current payment transaction; responsive to entry of an account number, determining whether said entered account number is valid; prompting said caller to enter a debit card number using said telephone keypad, said debit card number identifying a payor in connection with said current payment transaction; responsive to entry of a debit card number, determining whether said entered debit card number is valid; prompting said caller to enter a payment amount using said telephone keypad; responsive to a determination that a payment amount has been entered and further responsive to a determination that said entered access code, account number and debit card number are valid accessing a remote debit card network associated with said entered debit card number, said accessed remote debit card network determining whether sufficient funds exist in an account associated with said entered debit card number to complete said current payment transaction, responsive to a determination that sufficient funds exist in said associated account, deducting said entered payment amount from said account associated with said entered debit card number, adding said entered payment amount to an account associated with said entered account number and informing said caller of an approval code issued by said accessed remote debit card network and storing said entered access code, account number, debit card number and payment amount in a transaction log file of said telepay system, and responsive to a determination that sufficient funds do not exist in said associated account, informing said caller that said current payment transaction has been declined and terminating said current payment transaction.

A technical advantage achieved with the invention is that it enables the use of debit card (ATM) networks for a real-time positively authorized bill payment that inquire electronically against balances on deposit PRIOR to the processing of the bill payment transaction, thus eliminating the Automated Clearing House to process individual transactions.

Another technical advantage achieved with the invention is that it enables real-time inquiry capability into the consumers balances at virtually any U.S. financial institution in order to verify funds on deposit prior to processing the transaction, thereby eliminating the possibility of a non-sufficient funds occurrence.

Another technical advantage achieved with the invention is the elimination of a PIN (personal identification number) in conjunction with debit card number usage in order to comply with Regulation E of the U.S. Banking Regulations by maintaining security and frequency of usage restrictions in the method and process.

Yet another technical advantage achieved with the invention is the integration of interactive voice response technology and debit card number authorization processing with electronic funds transfer bill payment method and process.

Still another technical advantage achieved with the invention is the elimination of any specialized equipment on the part of the consumer to process an electronic bill payment (i.e., personal computers, specialized telephones or terminals, etc.).

A further technical advantage achieved with the invention is the elimination of any pre-registration or "sign up" procedure on the part of the payor.

A final technical advantage achieved with the invention is the provision to the recipient of the bill payment of an electronic daily general ledger or activity summary, that balances back to the gross amount of electronic deposits

made in the designated bank accounts by the utilized debit card networks. Moreover, the system of the present invention offers to the consumer the advantage of anywhere, anyplace, anytime, convenience with complete spontaneity as to the system usage.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram of a telepay system embodying features of the present invention.

FIGS. 2A-2G illustrate a flowchart of a bill payment transaction process of the present invention.

FIG. 3 is a flowchart of a settlement process of the present invention.

FIG. 4 is a flowchart of a payee inquiry process of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIG. 1, the general operation and structure of the system of the present invention will be described, it being understood that the operation of the system will be described in greater detail with reference to FIGS. 2.1, 2.7, 3.1 and 4.1. When a consumer calls into the TelePay system 10 using a telephone 12, the consumer is prompted by an interactive voice response unit within the system 10 to input certain necessary information, to wit, payee access code, debit card number, account number, and amount. The TelePay system 10 then checks all of its internal files, including an account number velocity file 14, a debit card velocity file 16 and a negative file 18, to validate the access code entered, the card number presented, the validity of the account number, and if that card number and/or account number has ever processed a fraudulent transaction. If any of these internal checks into the TelePay system 10 process indicate fraud, then the transaction is denied. If all of the checks are passed, then the TelePay system 10 assembles the data into an authorization request message, which is electronically sent to a debit card network 20 for transmission to a financial institution 22 that issued the card for verification of balance on deposit.

The debit card network 20 receives a response as to whether or not there are sufficient funds on deposit to process the transaction requested by the consumer. The debit card network 20 prepares an appropriate deduction from the consumer's account and prepares an appropriate deposit to the payee's account to be processed later. In addition any fees that are due from the payor are also preprocessed at this time. The debit card network then sends a message to the TelePay system 10 while the consumer is still on the telephone 12 line. The TelePay system 10 will then translate the numeric data received into an audible verbal response transmitted to the consumer via the telephone 12.

Settlement, as described in greater detail, with reference to FIG. 3.1, is defined herein as the methodology of debiting and crediting the appropriate accounts affected by the above-described transaction. These accounts would affect the payor, the payee, and the TelePay system 10 for any transaction fee. The debit card network 20 will initiate this process. The debit card network 20, however will only deposit a TOTAL of the days transactions into the payee's account. The network has no capability to discern which consumer paid how much. It then becomes the responsibility of the TelePay system 10 to detail the specific account numbers and amount of payments that were made that day. This is accomplished by a computer dial-up link (RJE) 24

from the TelePay system 10 to the payee's billing system 26. The TelePay system 10 will also bill the payee on a monthly basis for 800 telephone line usage (if any). The accounts receivable department of the payee is also provided with the capability to call into the TelePay system 10 to inquire as to if and when a consumer initiated a payment.

A single 800 number is used by the TelePay system 10. Technology allows for a virtually unlimited number of telephone lines to terminate on the same number, limited only by the compliment of computer hardware and it's capabilities that are running the system. The caller will be asked to enter the access code of the bill to be paid. This access code typically will be printed on the bottom of the statement in an obvious manner and is a requirement of all payees utilizing the service. The code will identify the payee within the TelePay system 10 and will activate the TelePay software to verbalize the customer's selection in order to give positive re-enforcement as is the case with all customer input (i.e. "you have elected to pay Florida Power and Light in Miami, Fla. " Press 1 if this is correct and you wish to continue, or press 2 if incorrect"). If incorrect, the customer will be asked to input another access code, or to terminate the call. Assuming the proper access code is confirmed, the next step will be the entering of the account number of the bill to be paid, as this number also appears on the monthly statement. All selections will be verbally re-enforced.

The next step will be the entering of the debit (ATM) card number. Various TelePay system 10 checks will be done on this entry. Verbal re-enforcement of the numbers entered is again given to the user ("You have entered 5419 23485 4657. Please press 1 if correct or 2 if incorrect"). The TelePay system 10 will then instruct the user to enter the amount of the payment and verbal positive re-enforcement will be given. If all has been acknowledge positively up to this point, then the system will give a verbal summary of the transaction and give the customer a final opportunity to validate the entries ("Press 1 if correct, or press 2 if incorrect"). When the transaction has been positively re-enforced by the user, the TelePay system will then build an authorization request that will be sent out to the existing debit (Electronic Funds Transfer) networks. When the transaction has been authorized, the system will once again give positive re-enforcement to the user ("Your payment to Dallas Gas and Electric in the amount of \$124.56 has been paid from your ATM card account number 5419 23485 4657. Your authorization number for this transaction is XXXXXXXX. Please make a note of this authorization code for future reference. If you would like to hear the authorization code for this transaction again, press 1. If you would like to pay another bill press 2. If you are finished press 3.").

If the user elects to pay another bill during the same session, then the system will retain the previously entered card number and ask the caller if the next bill being paid is to be paid with the same card, or allow the opportunity to enter a new card number.

All of the debit (Electronic Funds Transfer) networks are accustomed to the assessment, debiting and crediting of fees to the issuers and acquirers of debit (ATM) and credit transactions. In many cases, a 75¢ fee for a customer to use an ATM card at an ATM that is not owned by the card issuing bank involves the dividing of that fee into increments as small as 5¢. In this manner all networks that are accessed are compensated to assist in the authorization and routing of the transaction. All of these fees are electronically credited to the entity that earned the revenue as a result of a contractual relationship with that particular network. This process happens every working day at a predetermined "cut off" period

that separates business days and is referred to in the industry as "settlement".

Never before, however, has a transaction been presented to the debit networks for a real-time authorized bill payment initiated by the consumer from a touch tone telephone with the debit card used as the transaction vehicle. Additionally, it has never been done without the requirement of a PIN (personal identification number) and still maintain transaction security. In the TelePay System 10, when a transaction is entered by a consumer, and subsequently passed on to an outside debit card network for authorization, a number of things happen.

Assuming that the transaction is authorized, then any fee that the customer is paying, in addition to the actual bill payment, is automatically deducted from the payor's account immediately and added to the amount that the debit card network will owe TelePay and the payee at settlement. The amount of the bill that was paid is automatically added to the amount that will be credited to the payee at the end of the business day (every payee is required to provide a bank account number that will be used to electronically credit the days receipts). TelePay's bank account will, in a like manner, be automatically credited for the transaction fee. Any network usage fees that have to be paid to process the transaction by the use of an debit card network will be electronically paid by the TelePay system 10 to the appropriate service provider. Once a day at TelePay's settlement time, each payee participating in the system will receive the electronic on-line detail summary of the days individual transactions for posting to the consumer's account.

A flowchart illustrating the operation of a bill payment transaction process of the TelePay system 10 is shown in FIGS. 2.1-2.7. The process is initiated by a user's calling into the system 10. In step 200, a general purpose welcome message that announces and instructs the caller in the manner with which the system can be used is transmitted to the user via the telephone 12 (FIG. 1.1). In step 202, the user is prompted to enter a payee access code, which is assigned by the embodiment of the invention in the form of a service and the user is made aware of this code due to its printed presence on the monthly customer statement, statement stuffers or other printed handouts. This code is what distinguishes one payee from the other, and is the identifier that causes the system 10 (FIG. 1.1) to record the transaction in the appropriate payee record file.

After the caller enters the access code, it is electronically checked against the list of authorized payees participating in the system 10 in step 204. In step 206, a determination is made whether the entered access code is valid. If the access code is invalid, in step 208, the system 10 checks to determine whether this is the third incorrect entry of an access code. If this is not the third incorrect entry of the access code, in step 210, the system 10 instructs the caller that the access code is invalid, and offers the caller to opportunity to re-enter the access code in step 202. If this is the third incorrect entry of an access code, in step 212, the system 10 instructs the caller to check the access code information and call again.

If the access code is entered properly within three attempts, in step 214, the caller is prompted to enter the account number of the bill that they are paying. In step 216, the system 10 checks the account number for validity. The validity check is based on the methodology that the payee uses to verify account numbers and will vary according to payee. The system 10 will have all of the participating payees verification methodologies. This methodology could

be a MOD 10 or MOD 11 check digit routine with or without a check digit in it's most basic implementation. In a mere sophisticated environment, the system would have in it's database, a list of all the valid account numbers for that particular payee, commonly known to those skilled in the art as a "shadow file."

In step 218 (FIG. 2.2), a determination is made as to the validity of the account number entered. If the entered account number is not valid, in step 220, a determination is made as to whether this is the third incorrect entry. If it is not the third incorrect entry, in step 221 (FIG. 2.1), the caller is informed that the entry is invalid and is given an opportunity to reenter the account number. If the entry attempt is the third invalid attempt, in step 222, the caller is instructed to check their information and call again. If a valid account number is entered within three attempts, in step 224, the system 10 requests the caller to enter the debit card number.

In step 226, the debit card number is checked for validity. This validity check is done via the MOD 10 algorithm that is the basis for debit card issuance used by financial institutions. Using this method that is commonly used, and familiar to those skilled in the art, gives a great level of assurance that the number that was entered by the caller was entered properly. In step 228, a determination is made whether the entered debit card number is valid. If the entered debit card number is not valid, in step 230, a determination is made whether this is the third invalid entry. If this is not the third invalid entry, in step 232, the caller is instructed of the invalid entry and then, in step 224, is requested to enter a debit card number.

If this is the third invalid entry, in step 234, the system 10 requests the caller to check their information and call again. Once a valid debit card number is entered within three attempts, in step 236 (FIG. 2.3), the caller is requested to enter the dollar amount (without a decimal) of the bill to be paid. In step 238, the system 10 repeats the entered amount to the caller and, in step 240, asks the caller to indicate whether the entry is correct by depressing a key on the keypad of the telephone 12. In step 242, a determination is made whether the caller responded that the entry is correct. If the entry is not correct, in step 244, a determination is made whether this is the third incorrect entry. If this is not the third incorrect entry, in step 236, the caller is requested to enter a new dollar amount. If this is the third incorrect entry, in step 246, the caller is requested to check their information and call again.

If the caller enters a correct amount within three attempts, in step 248 (FIG. 2.4), the system 10 initiates a velocity file 14 check. The velocity file 14 is an internal file to this invention that restricts the number of times that a payor account number can be paid electronically using the system 10 over a 30 day period. The numerical value of the velocity file is individually selectable by each payee participating in the system 10, and will prevent excessive payments from their customers that have the potential for fraud. In step 250, if payments are located in the velocity file 14 that indicate to the system 10 a violation of the number of transactions permitted over a 30 day period by the payee, in step 252, the caller is notified that their transaction cannot be processed, due to the excessive frequency of usage. If the transaction is within the number allowed by the payee over a thirty day period, in step 254, the system 10 performs the velocity file check on the debit card number that the caller entered.

The numerical value of the debit card velocity file 16 is determined by the system 10 based on, but not limited to, historical usage data of all payees and payors over a given

period of time. This value is variable and is achieved generally by multiplying the total number of payees participating in the system times the total number of payments allowed by each payee over a 30 day period. If the system 10 determines that the transaction by the payor exceeds the debit card velocity file criteria, in step 256, the caller is notified that the transaction cannot be processed due to the frequency of the number of uses of the debit card used to process transactions over a thirty day period.

If the transaction by the payor does not exceed the debit card velocity file criteria, in step 258 (FIG. 2.5), the system 10 determines whether either the payor account number or the debit card number is contained in the negative file 18 comprising a database of negative accounts stored on the system 10. The purpose of the negative file 18 maintained by the system 10 is to prevent debit card numbers and account numbers that have been involved in fraudulent transactions from initiating another transaction. This file is updated by payees participating in the system by written notification to the service. An employee of the service would then update the system.

If the system 10 determines that a match on either payor account number or debit card number has been found, in step 260, the caller is informed that the transaction cannot be processed. If there is not a match found on the negative file 16, then the details of the transaction are summarized to the caller verbally on the interactive voice response system in step 262. In step 264, the caller is prompted to begin the processing of the transaction by pressing one (1) on the telephone keypad, or by pressing two (2) on the telephone keypad to abort the transaction. In step 266, the system 10 checks the caller's response. If two has been depressed by the caller, in step 268, the system 10 thanks the caller and terminates the call.

If one has been depressed by the caller, in step 270 (FIG. 2.6), the system 10 outdials via a normal telephone line to an appropriate debit card network, such as the network 20 for processing. A debit card network is a third party processor that will process the transaction for a fee, providing connectivity to either the financial institution that issued the debit card number, or another debit card network that has the capability to connect with the financial institution that issued the debit card number.

Those skilled in the art are aware that a debit card network, i.e. Pulse in Houston, Tex. MOST in Washington D.C., Honor in Maitland, Fla. etc., process primarily ATM (Automated Teller Machine) transactions, and do not rely on the Automated Clearing House (ACH) to process individual transactions. In addition to the face value of the bill to be paid, the system adds a service charge that the caller will electronically pay for use of the convenience of the system. Through the use of the debit card network, rather than the ACH, the transaction is positively verified against funds on deposit prior to the processing of the transaction. In step 272, while the system 10 is outdialing to the debit card network 20, the system 20 plays a customized individually recorded marketing message for each payee utilizing the system 10, that will promote a service of the payee while the caller is awaiting approval. If the debit card network and the subsequent transmission to other debit card networks (if required) make the determination that funds are not available in the caller's account selected by the debit card number, then the transaction will be declined.

In step 274, the system 10 awaits a reply from the debit card network 20. In step 276, the system 10 then makes a determination on the disposition of the transaction based on

the response received back from the debit card network 20. If the response from the debit card network 20 indicates to the system 10 a declination, with which those skilled in the art are familiar, in step 278, the system 10 informs the caller that the transaction was declined by the financial institution that issued their debit card number. If the response from the debit card network 20 indicates an approval, the caller will be verbally informed of the approval code in step 280. In step 282, the approved transaction is updated in a system transaction log file that will later become the basis for the transmission for payment data to each individual payee. The transaction log file contains the debit card number, payor account number of the bill paid, amount of the bill paid, time/date, and approval code. The log file is individually kept for each payee participating in the system for later electronic transmission for billing system update.

In step 284 (FIG. 2.7), when a transaction is successfully completed, the aforementioned debit card number velocity file that was checked as part of the pre-processing procedures is updated to reflect the transaction. In step 286, the velocity file for the account number of the bill that was paid is updated to reflect the transaction. In step 288, the system 10 asks the caller if he or she would like to pay another bill by requesting the caller to press one (1) to pay another bill, or two (2) to terminate the call. In step 290, the system 10 makes a determination as to whether the caller would like to make another payment, based on the response indicated by the caller. If a one was pressed, the system 10 prompts the caller for another access code in step 202 (FIG. 2.1). If a two is pressed, the system 10 terminates the call in step 292.

FIG. 3.1 is a flowchart of the settlement process of the present invention. After close of the business day, by the debit card network 20, the debit card network 20 begins to move the funds electronically; a process with which those skilled in the art are familiar. At that point the system 10 is in a position to transmit the detail of the days transactions to the individual payees that will be receiving electronic credits from the debit card network 20. The debit card networks transmit only the gross dollar amount of funds for crediting to each payee. The system 10 performs the actual detail of the electronic transmission of individually paid accounts. The system 10 will recognize the time of day by the internal clock common to most computer systems, and select the first payee in the aforementioned transaction log file. In step 300, the system 10 will outdial using an ordinary telephone line into the first payee on the system in an effort to connect to the computer billing system 26 (FIG. 1.1).

Once a telephonic connection is established, in step 302, the system 10 begins the process of transmitting the payor account numbers and amounts of the bills that were paid since the last settlement period using the system 10. This process is known to those skilled in the art as remote job entry (RJE). In step 3143 the system 10 determines whether there are other files to be transmitted. In step 306, the system 10 outdials the appropriate telephone number established in advance to establish a telephonic RJE link with the next payee. In step 302, in a manner similar to the aforementioned, the transactions that the system 10 performed in favor of that particular payee will be transmitted to that payee's computer billing system 10. Once all the files have been transmitted, the settlement process is terminated in step 308.

FIG. 4.1 is a flowchart of a payee inquiry process of the present invention, which provides a payee with the ability to initiate a telephone call into the present invention operating as a third party to the transaction, in order that payment information can be discerned in conjunction with a touch

tone telephone. The process is initiated by a payee calling into the system 10. In step 400, the system 400 will ask the caller to input a security code, which is assigned to each payee and is different for each payee. The input of a proper code will indicate to the system which payee payments are to be inquired upon. Without a proper code, no inquiry access is permitted. It is important to recognize that this system capability is for the payee, and not for the actual payor of the bill. This system capability assists in past due collection activity.

In step 402, the system 10 checks its internal data files to ascertain the validity of the code entered. If an improper code is entered, in step 404, the system 10 informs the caller that the code is invalid. If the entered code matches one that was contained in the system database, in step 406, the system 10 requests the caller to enter the account number of the customer whose bill is being inquired upon. After the caller enters the account number, in step 408, the system attempts to locate it on the system database. If the system 10 cannot locate the account number, in step 410, the caller is informed that no payment exists for the entered account number and is given an opportunity to enter another account number in step 406. If the entered account number is located, in step 412, the system 10 informs the caller of the details of the transaction, to wit, time, date, amount, and authorization number of the payment. In step 414, upon completion of the audio text information, the caller is asked whether he or she has another inquiry to perform. If so, in step 406, the system 10 prompts the caller to enter the account number; otherwise, the system 10 terminates the call in step 416.

The crux of this invention is that bill payment transactions have never been presented to the debit networks for a real-time authorization initiated by the consumer from a touch tone telephone with the debit card number used as the transaction vehicle. Additionally, this process has never been done without the requirement of a PIN (personal identification number) and still maintain an assemblage of transaction security. In the TelePay System, when a transaction is entered by a consumer, and subsequently passed on to an outside debit card network for authorization, a number of things happen. Assuming that the transaction is authorized, then any fee that the customer is paying, in addition to the-actual bill payment, is automatically deducted from the payor's account immediately and added to the amount that the debit card network will distribute between TelePay and the payee at settlement. The amount of the bill that was paid is automatically added to the amount that will be credited to the payee at the end of the business day (every payee is required to provide a bank account number that will be used to electronically credit the days receipts). Telepay's bank account will, in a like manner, be automatically credited for the transaction fee. Any network usage fees that have to be paid to process the transaction by the use of an debit card network will be electronically paid by TelePay to the appropriate service provider. Once a day at TelePay's settlement time, each payee participating in the system will receive the electronic on-line detail summary of the days individual transactions for posting to the consumer's account.

The following criteria and conditions are part of the TelePay method and unique process prior to the acceptance of a debit card number into the system in order to ensure a proper transaction has been presented and to add a level of usage security. First, a service address (telephone number or residential electricity site, etc.) or payee account number can only be the recipient of a specific limited number of payments within 30 days that is selectable by the funds recipient and a velocity file by account number is kept at the TelePay

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system tracking this limitation. In addition, a debit card number can only be used in the TelePay system a specific limited number of times based on a recipient of funds selectable parameter and current recipient of funds (payee) negative files due to adverse experience are added to the TelePay system prior to implementation.

Still further, any consumer chargebacks will prevent that customer's telephone number/electricity service address number and that credit/debit card number to have system access. Appropriate additions will be made to the negative file unless specific overrides are requested by the funds recipient. Also, all transactions will be routed electronically to the card issuing entity/network by the TelePay system for positive authorization as to card acceptability, credit limit guidelines, payment status, balance availability, and any and all criteria that the issuer deems appropriate.

Additionally, the TelePay system will provide records of all declinations by card number and by telephone number, electric service account number, or payer account number, whichever is appropriate and a check will be done on all debit card numbers entered into the TelePay system to ensure that the input number is an assigned number within the criteria of the issuing entities, as well as on service address account numbers to insure that the proper number and sequence of digits have been entered to add an additional level of accuracy to the numeric entry process. Moreover, the customer will always be given positive audio reinforcement at critical steps during the data entry process to assist in the entry of accurate information and transaction declinations due to non-sufficient funds will be audio referred for the consumer to contact their card issuing institution.

Accordingly, it is clear that the TelePay system is a technologically advanced and consumer convenient process. The consumer may use the TelePay system to pay bills at will, spontaneously, without any personal investment in equipment, and any requirement of pre-registration. The use of the TelePay system is not tied to a specific locations, as any touch tone telephone will suffice. Use of this unique process will eliminate the use of stamps, envelopes, the U. S. Postal Service, and the necessity of going to a mailbox. Personal computers and the lack of realistic portability are problems that do not exist in the present invention. Receipt of payment is also assured and issues of "lost in the mail" or mail delays will no longer exist. Debit cards will now have true utility as transaction vehicles in order to electronically present payment as opposed to paper checks. Older technology of pre-registration and direct debit registration systems will become obsolete.

It is understood that the present invention can take many forms and embodiments. The embodiments shown herein are intended to illustrate rather than to limit the invention, it being appreciated that variations may be made without departing from the spirit of the scope of the invention. For example, it is anticipated that the payor may be an individual or an institution, such as a corporation or association.

Although illustrative embodiments of the invention have been shown and described, a wide range of modification, change and substitution is intended in the foregoing disclosure and in some instances some features of the present invention may be employed without a corresponding use of

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the other features. Accordingly, it is appropriate that the appended claims be construed broadly and in a manner consistent with the scope of the invention.

What is claimed is:

1. A method of paying bills using a telecommunications line connectable to at least one remote payment card network via a payee's agent's system, wherein a caller begins session using a telecommunications line to initiate a spontaneous payment transaction to a payee, the method comprising the steps of:

prompting the caller to enter an account number identifying an account of a payor with the payee in connection with the payment transaction;

prompting the caller to enter a payment number selected from one or more choices of credit or debit forms of payment;

prompting the caller to enter a payment amount for the payment transaction;

upon a payment amount being entered and during the session, accessing a remote payment network associated with the entered payment number, the accessed remote payment network determining, during the session, whether sufficient available credit or funds exist in an account associated with the entered payment number to complete the payment transaction, and responsive to a determination that sufficient available credit or funds exist in the associated account, charging the entered payment amount against the account associated with the entered payment number, adding the entered payment amount to an account associated with the entered account number, informing the caller that the payment transaction has been authorized, and storing the account number, payment number and payment amount in a transaction log file of the system.

2. The method of claim 1 wherein said payment number is a PIN-less credit or debit card number.

3. The method of claim 1 wherein said payment number is a debit card number or debit payment in the form of an electronic check.

4. The method of claim 1 further comprising the steps of prompting the caller to select a credit or debit option, prompting the caller to enter a payment amount, and prompting the caller to acknowledge a transaction fee to the payee's agent's system.

5. The method of claim 1 further comprising the step of prompting the caller to indicate the type of payment, said payment being at least one of deposit, regular payment, or reconnect fee.

6. A method of paying bills using a telecommunications network line connectable to at least one remote payment card network via a payee's agent's system, wherein a caller begins session using a telecommunications network line to initiate a spontaneous payment transaction to a payee, the method comprising the steps of:

prompting the caller to enter a payment number selected from one or more choices of credit or debit forms of payment;

prompting the caller to enter a payment amount for the payment transaction;

accessing a remote payment network associated with the entered payment number, the accessed remote payment network determining, during the session, whether sufficient available credit or funds exist in an account

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associated with the entered payment number to complete the payment transaction, and upon a determination that sufficient available credit or funds exist in the associated account, charging the entered payment amount against the account associated with the entered payment number, adding the entered payment amount to an account associated with the entered account number, and storing the account number, payment number and payment amount in a transaction file of the system.

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7. The method of claim 6 wherein said payment number is a PIN-less credit or debit card number.

8. The method of claim 6 further comprising the steps of prompting the caller to select a credit or debit option, prompting the caller to enter a payment amount, and prompting the caller to acknowledge a transaction fee to the payee's agent's system.

* * * * *

U.S. Patent
5,715,298



US005715298A

United States Patent [19]

[11] Patent Number: 5,715,298

Rogers

[45] Date of Patent: *Feb. 3, 1998

[54] AUTOMATED INTERACTIVE BILL PAYMENT SYSTEM USING DEBIT CARDS

[75] Inventor: Catherine R. Rogers, Dallas, Tex.

[73] Assignee: Telepay, Dallas, Tex.

[21] Appl. No.: 787,981

[22] Filed: Jan. 22, 1997

[*] Notice: The term of this patent shall not extend beyond the expiration date of Pat. No. 5,652,786.

[56] References Cited U.S. PATENT DOCUMENTS

5,652,786 7/1997 Rogers 379/91.01

Primary Examiner—Wing F. Chan
Attorney, Agent, or Firm—Haynes and Boone, L.L.P.

[57] ABSTRACT

Method and apparatus for processing payment transactions using debit card numbers without the requirement of a personal identification number (PIN) is disclosed. A telepay system of the present invention provides an interface between a standard touchtone telephone and at least one debit card network such that real-time bill payment transactions may be effected using a keypad of the telephone. The telepay system includes an interactive voice response unit for prompting a payor to enter an access code, account number, debit card number and payment amount and for informing the user of the status of the transaction. Real-time processing of transactions is provided through use of debit card networks, rather than the Automated Clearing House. The telepay system is also capable of performing settlement functions and processing inquiries by payees of the system regarding previously processed transactions.

Related U.S. Application Data

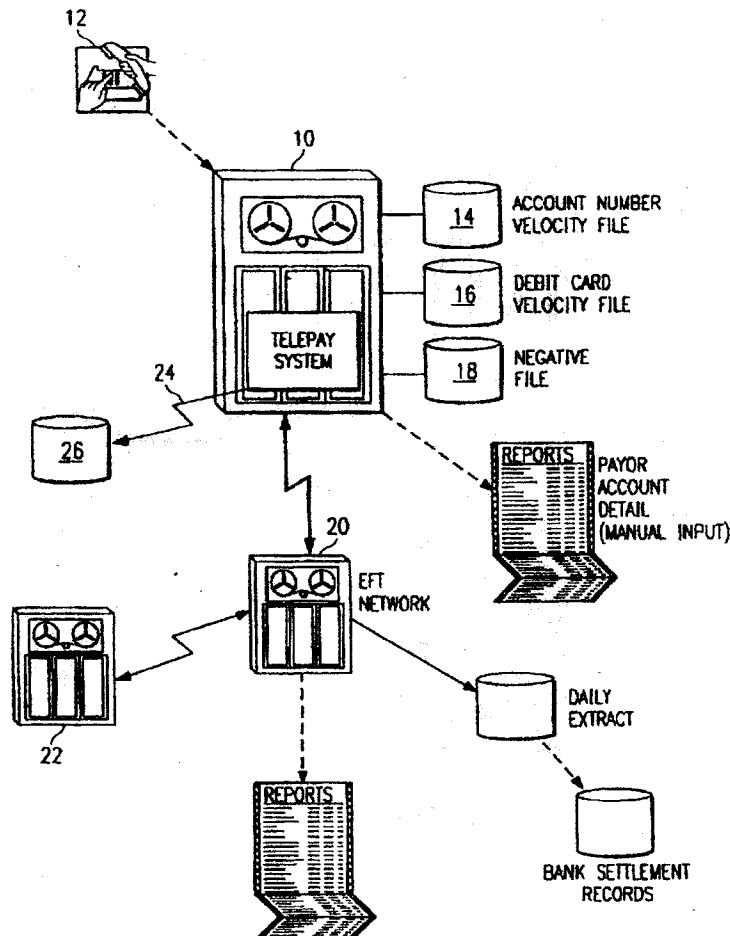
[63] Continuation of Ser. No. 649,926, May 16, 1996, Pat. No. 5,652,786.

[51] Int. Cl.⁶ H04M 11/00

[52] U.S. Cl. 379/91.01; 395/240

[58] Field of Search 379/91.01, 91.02, 379/93.02, 93.01, 93.12, 93.13, 93.26, 93.28, 143, 144; 235/375, 379, 380; 395/240

22 Claims, 9 Drawing Sheets



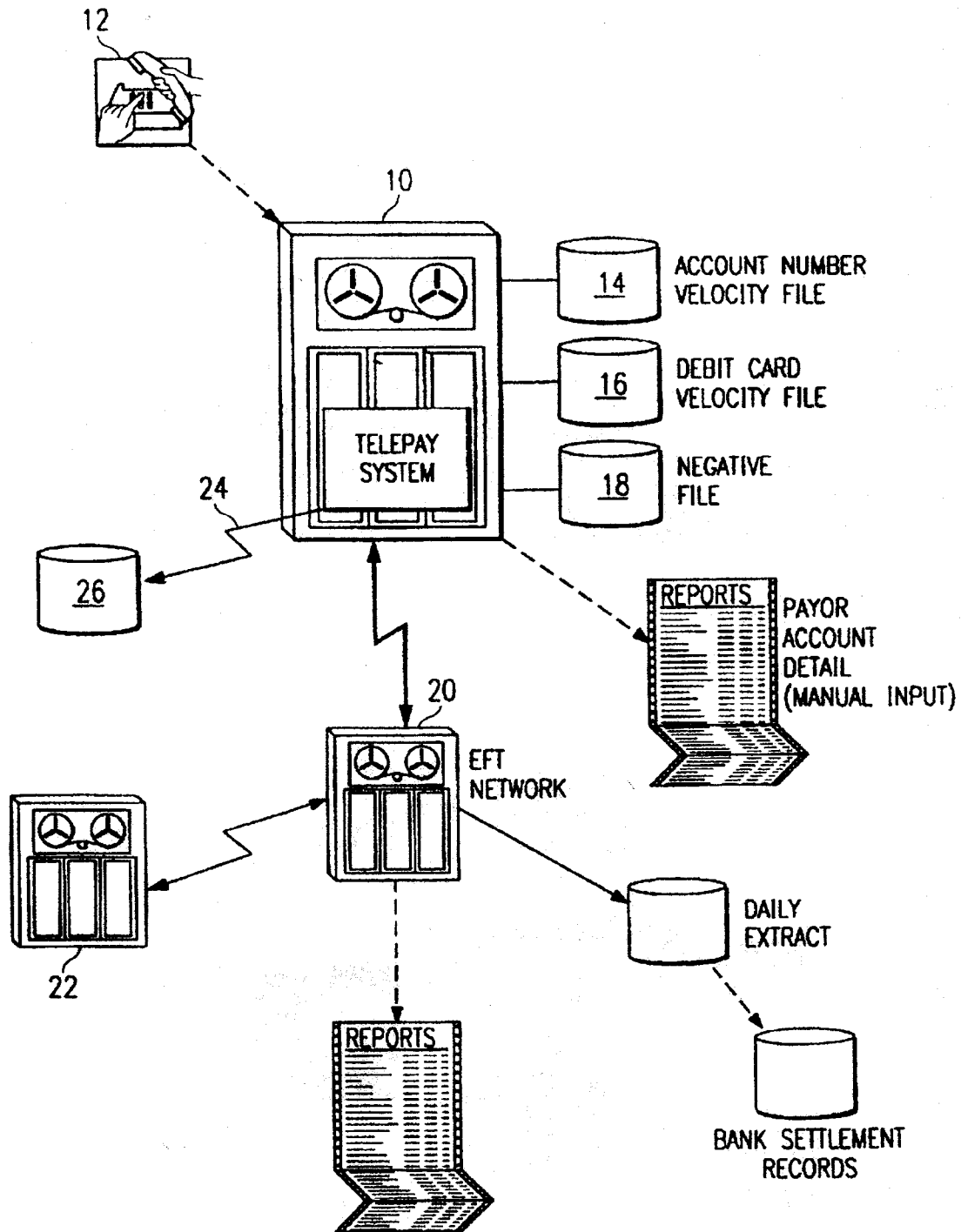


Fig. 1

BILL PAYMENT TRANSACTION PROCESS

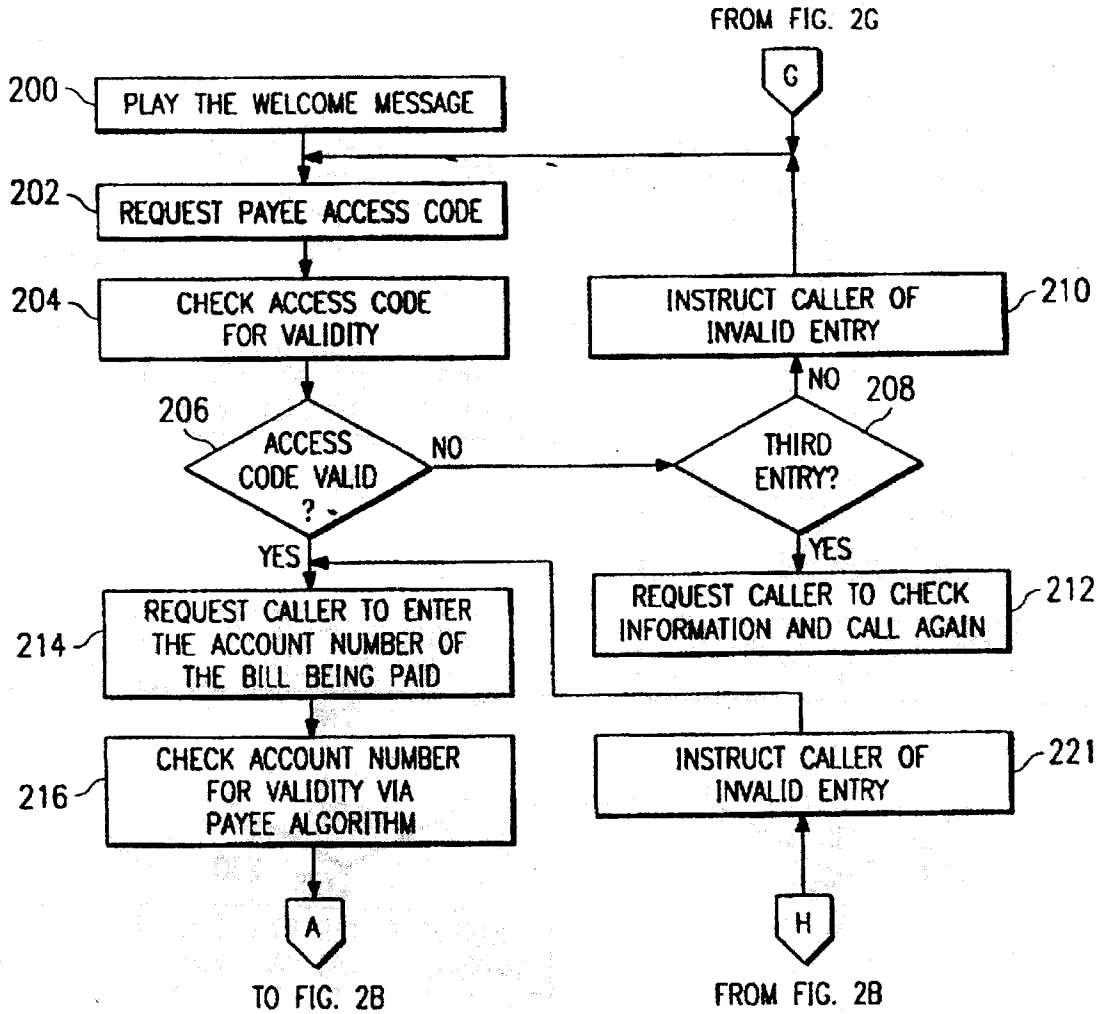


Fig. 2A

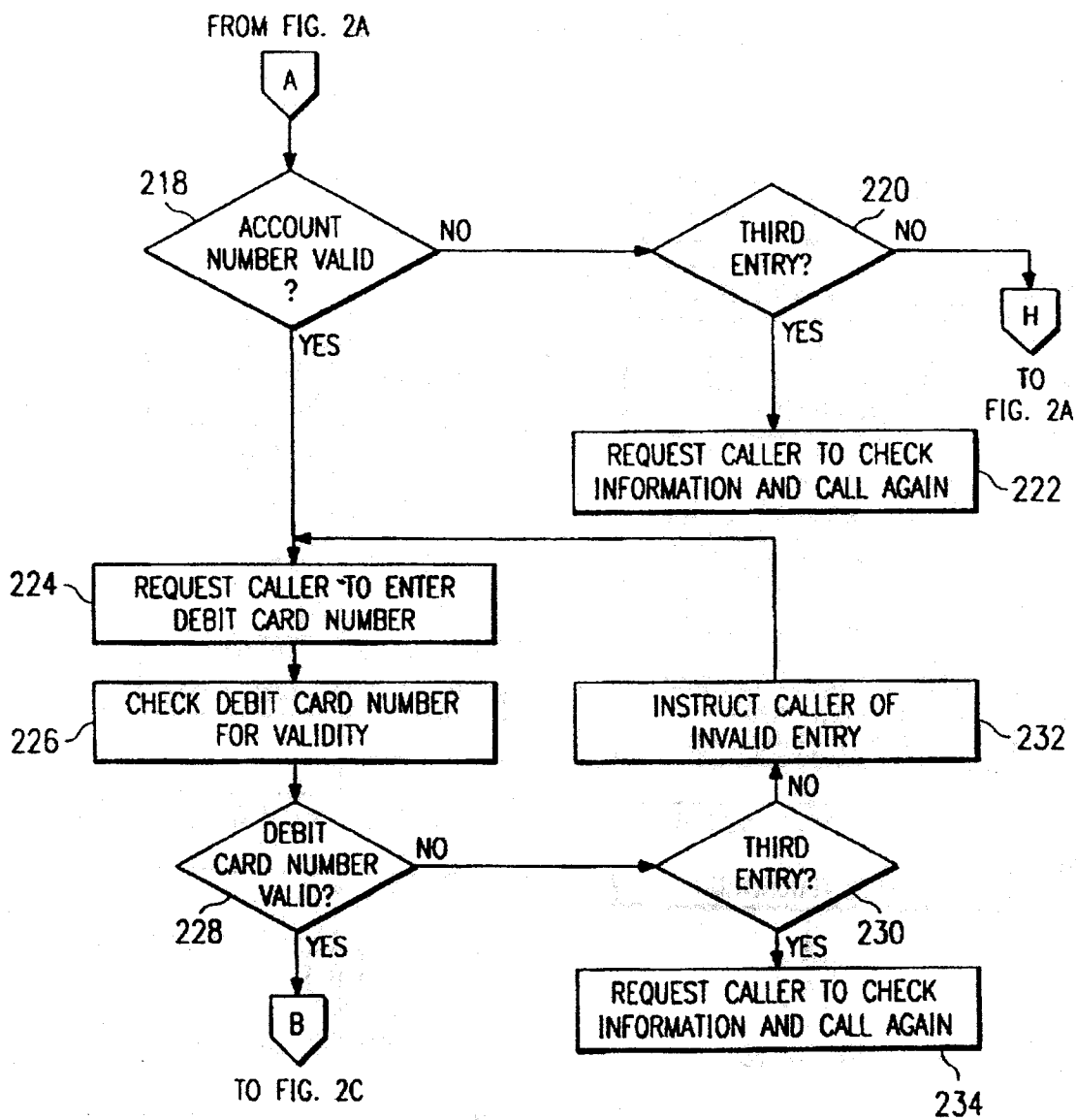


Fig. 2B

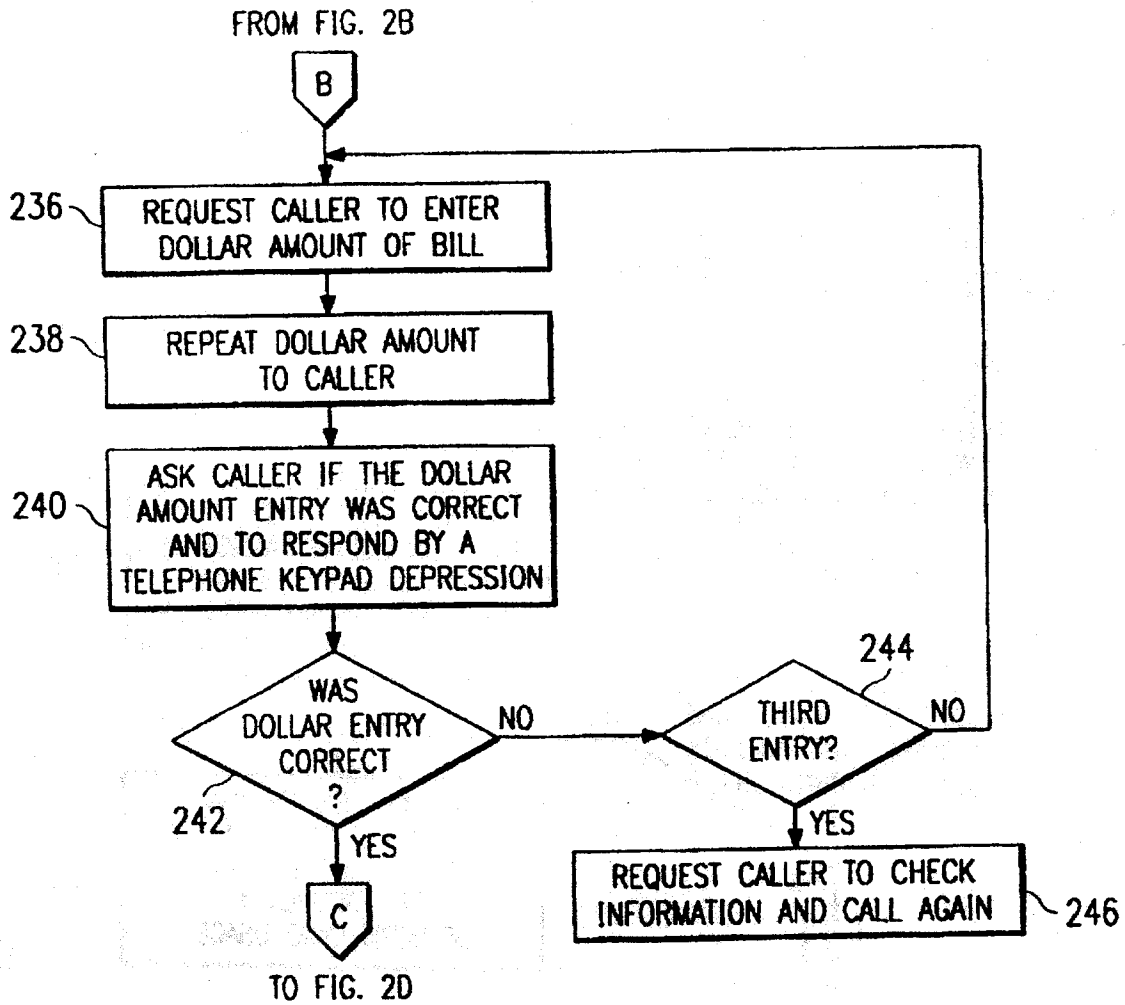


Fig. 2C

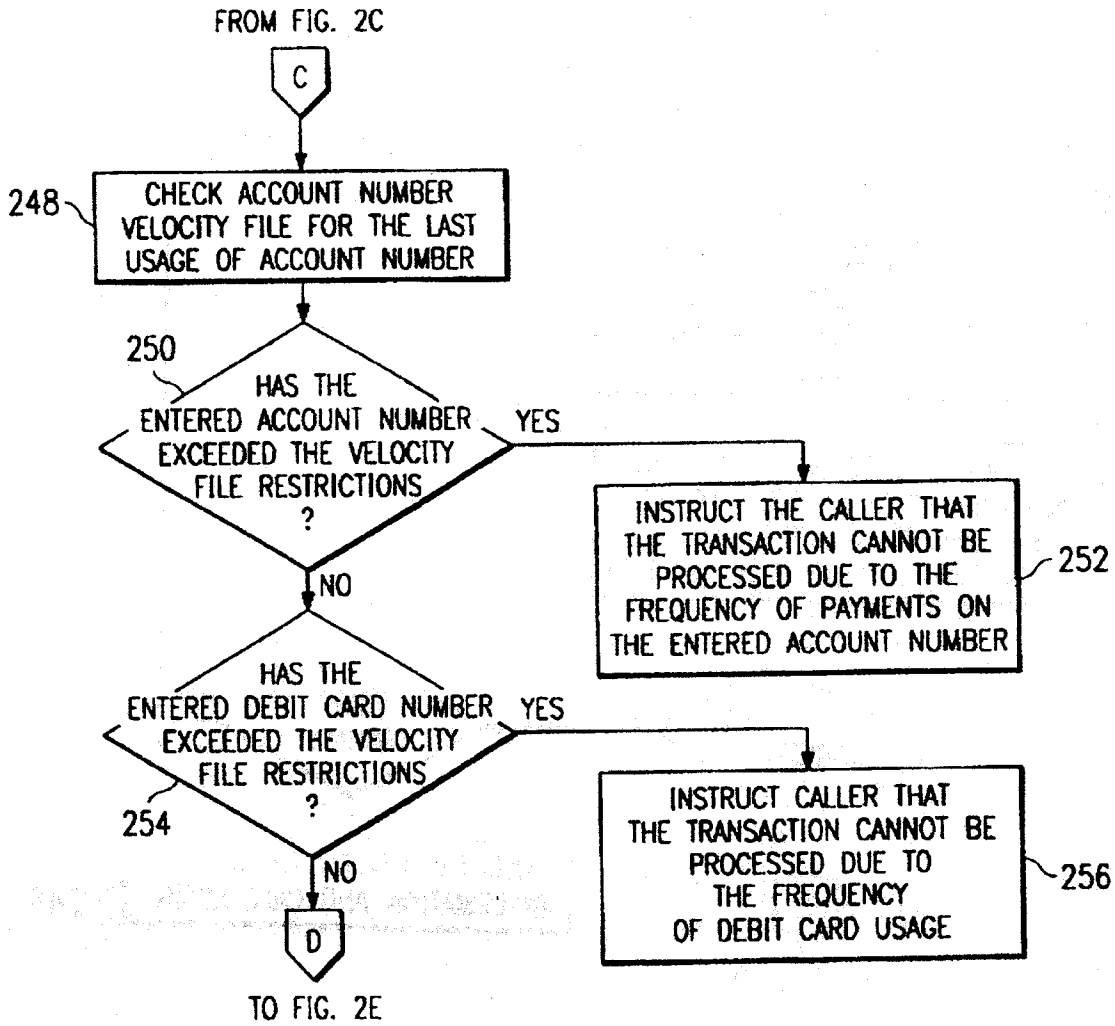


Fig. 2D

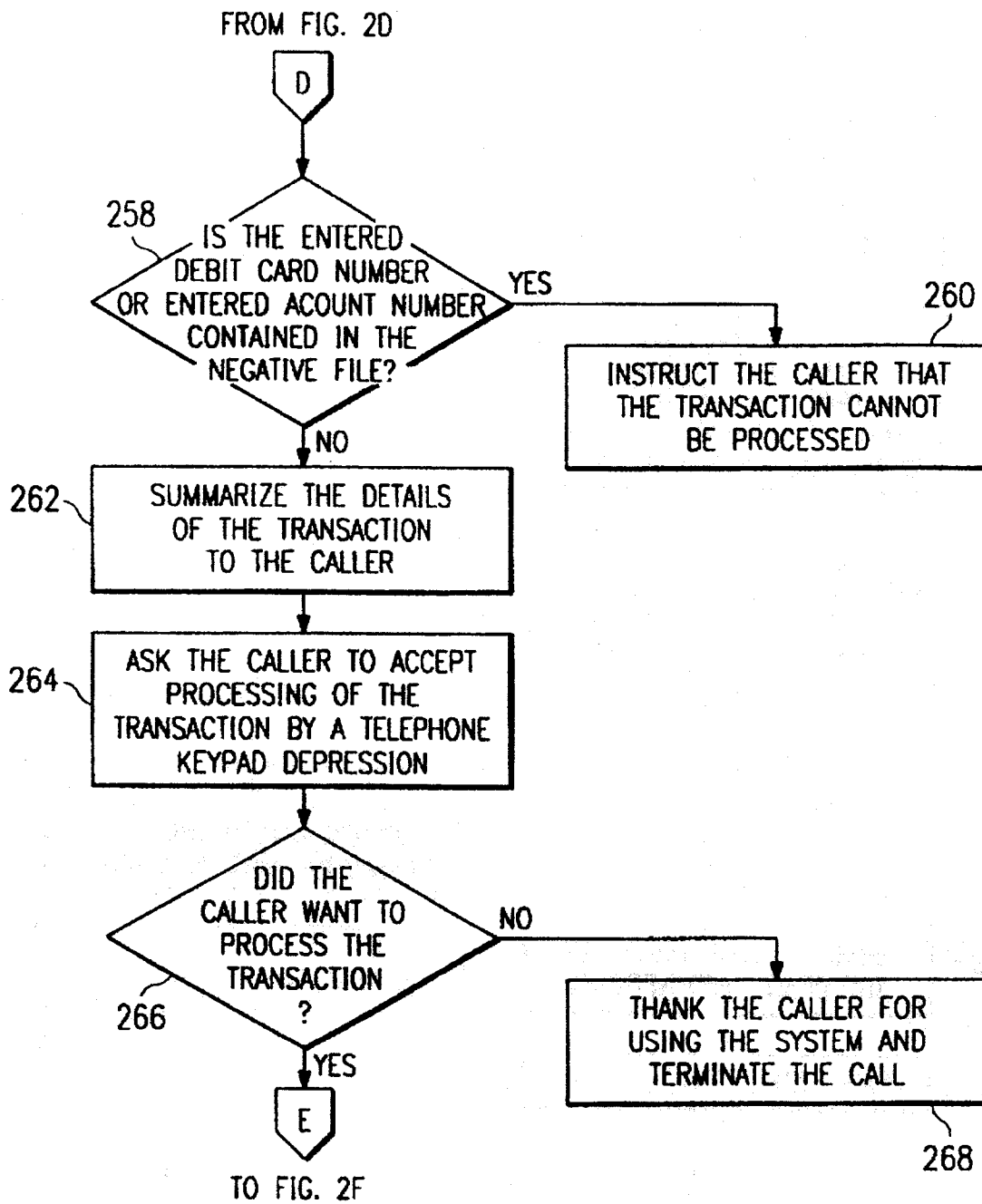


Fig. 2E

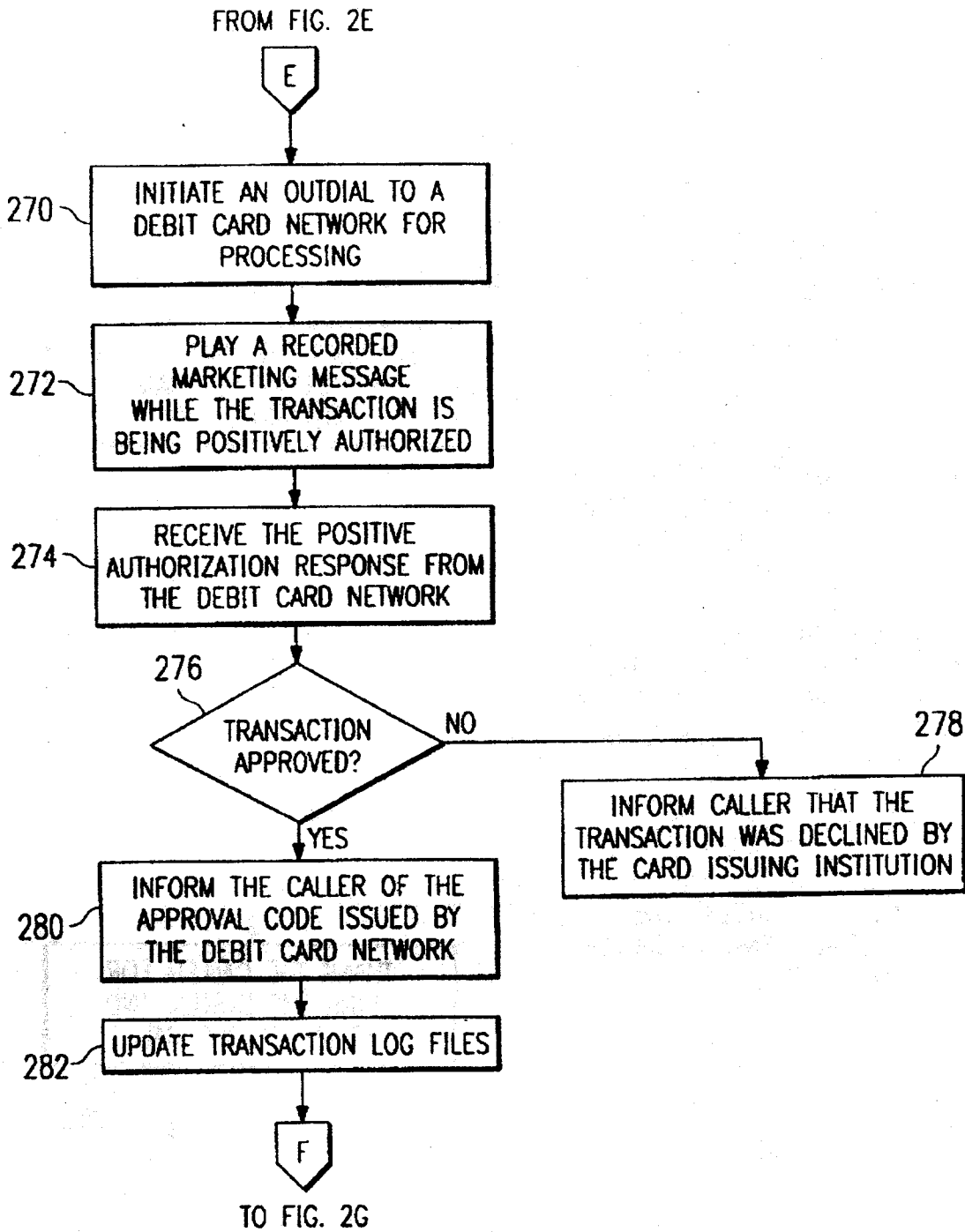
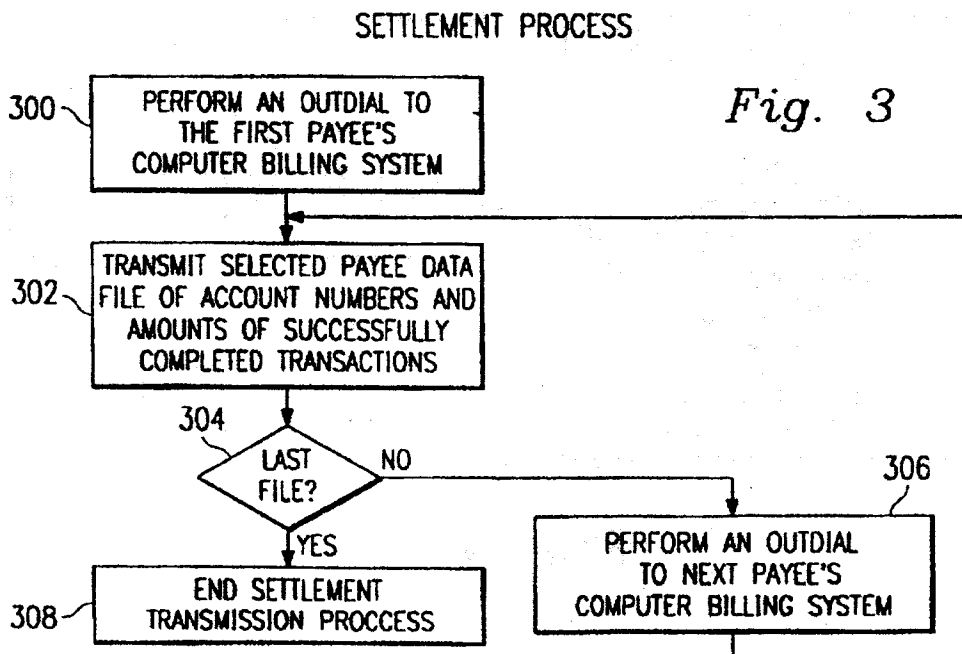
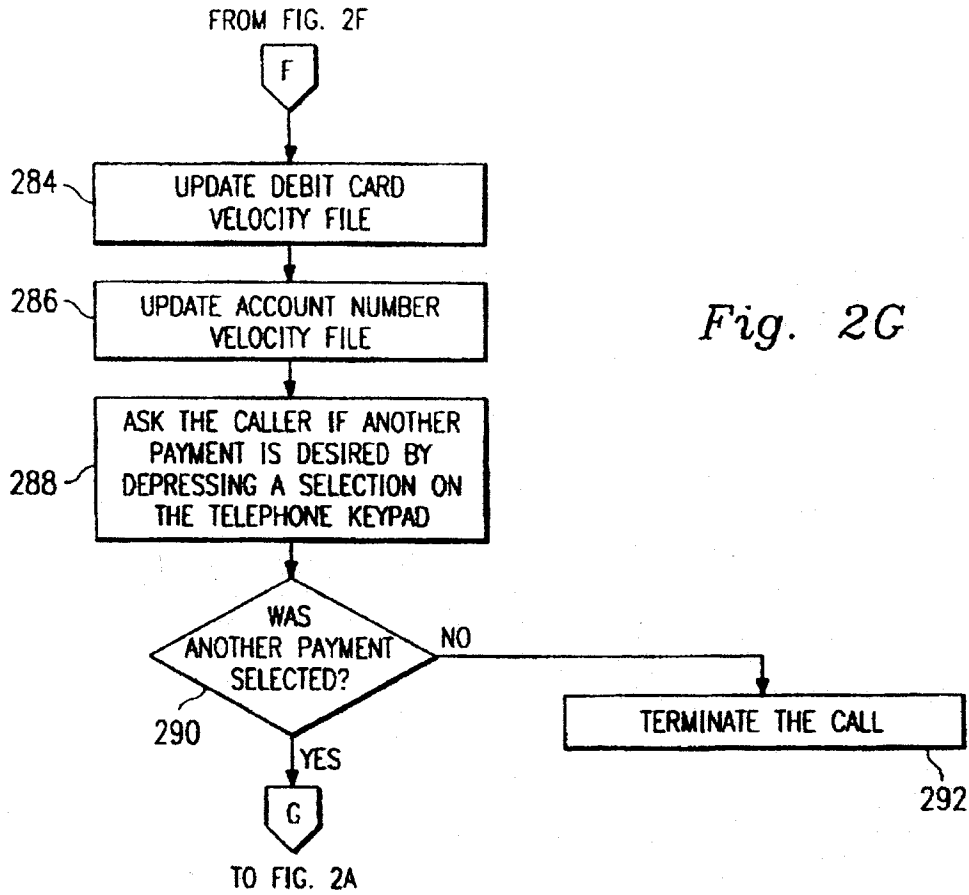


Fig. 2F



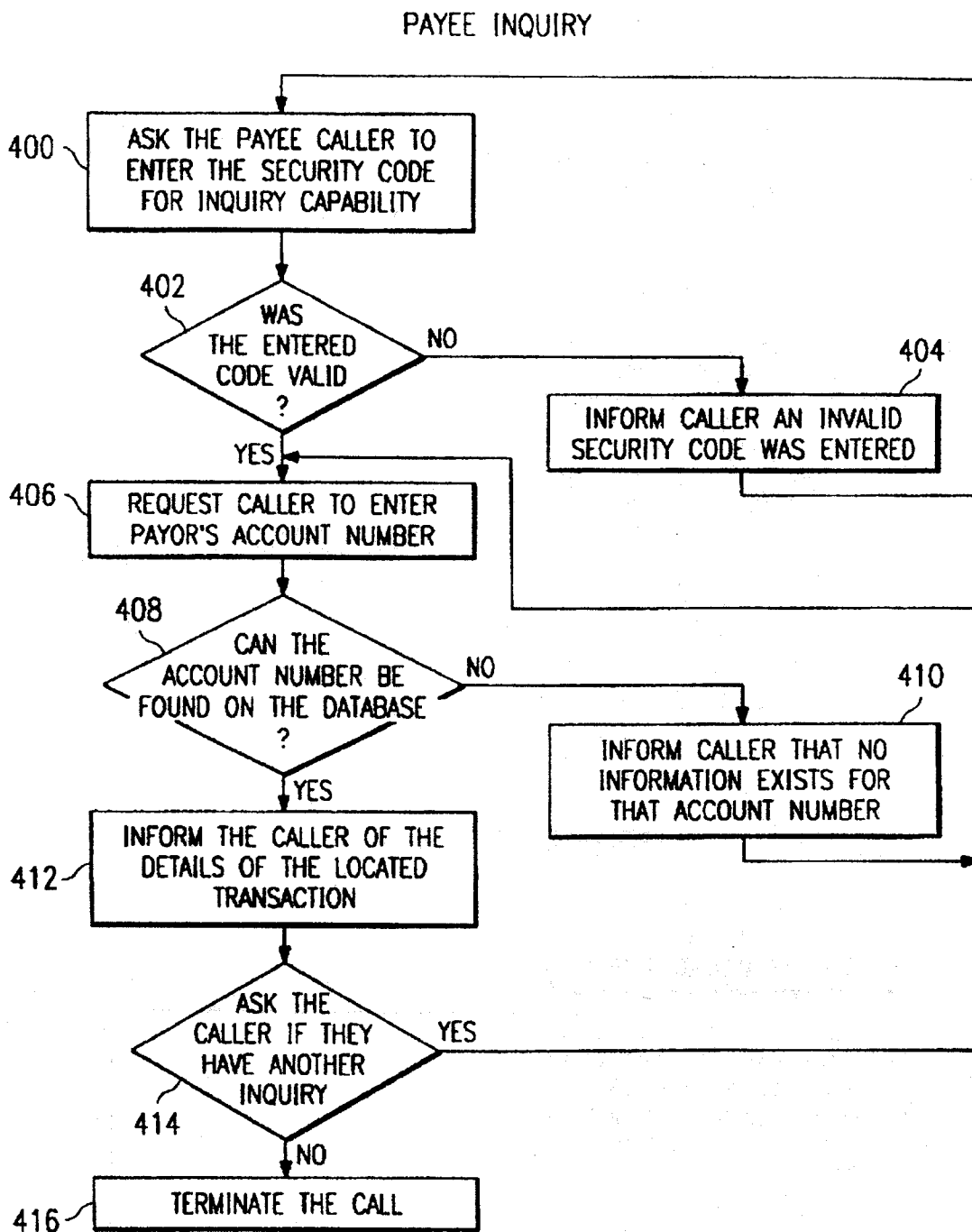


Fig. 4

AUTOMATED INTERACTIVE BILL PAYMENT SYSTEM USING DEBIT CARDS

This is a continuation of application Ser. No. 08/649,926 filed on May 16, 1996, now U.S. Pat. No. 5,652,786.

TECHNICAL FIELD

The invention relates generally to systems for electronic bill payment systems and, more particularly, to a universal, real-time bill payment system method and system that uses debit (ATM) cards without the requirement of a PIN (personal identification number) in conjunction with touch tone telephones to initiate consumer bill payments electronically and provide for the elimination of paper checks and the heretofore use of the Automated Clearing House of the U.S. Banking System to settle individual items.

BACKGROUND OF THE INVENTION

Bill payment by telephone has been available primarily from financial institutions for approximately 15 years. Heralded as "home banking" this technology allowed a customer of a bank, savings and loan, or credit union to pay any pre-registered bill with the use of a touch tone telephone and that financial institutions interactive voice response unit (provided that they offered the service). The customer would first have to select a financial institution that offered the service, request to participate in the service, send in a voided check, and then provide a manual list of all the bills that were desired to be paid using this system. In addition, a signature authorization card would have to be signed and archived by the financial institution. The financial institution would then manually input all of this information into their computer, and then advise the customer that system access was then available. This process usually took up to two weeks to complete.

Once activated, the customer would then have the capability to call the financial institution and input payment instructions in conjunction with a touch tone telephone and reference each payee by a number that was assigned by the financial institution. This process of bill payment would allow the customer to pay bills by having the bank then issue an "electronic check" to the designated payee. This "electronic" document would then be presented to the Automated Clearing House of the U.S. Banking System for processing and clearing. In reality the process was identical to the processing of a paper check, with the only exception being that there was not any paper involved in the transaction. The payment could still "bounce" and be returned for non-sufficient funds since there was no actual verification on the customer's account balance to insure that sufficient funds were on deposit to cover the transaction. In addition, all in place check clearing time requirements were still in place, as it took typically at least 3-5 days to clear. Until clearing was realized the recipient of the funds never had actual use of the funds used for payment. If a new debt was incurred, it would have to be pre-registered on the system in order to utilize this "electronic" capability. If a customer changed financial institutions, the whole process of pre-registering all debts, signature cards, and a voided check would have to be repeated. Existing pay by phone systems offered some convenience to the user, but were cumbersome to administer and usage was never widespread.

As "home banking" gained more interest, many companies developed special purpose telephones with visual displays and "swipe card readers" that the consumer could purchase that would allow the use of a debit (ATM) card to

basically achieve the same purpose as was evident in previously implemented systems (for the purposes of brevity in this disclosure the term "debit card" shall be construed to mean both debit and credit card). The only difference was that the consumer could now "swipe" the debit card through the reader that was part of the telephone. The Automated Clearing House of the U.S. Banking System was still used to process payments, and all pre-registration and signature cards were still required. All "electronic check" clearing time requirements were still needed, and the transaction would still be returned for non-sufficient funds. If a service offered a specialized telephone and bypassed the Automated Clearing House, using debit card networks, the debit card used to process the transaction required a PIN. There was a natural resistance to the purchase of special telephones that proved to be relatively expensive, in addition to the monthly fees necessary to remain a customer of this service.

As personal computers began to proliferate, many systems became available that would allow bill payment in conjunction with a third party service and a personal computer owned by the user with that third party software loaded into it, such as the Prodigy system. Still, however, all of the aforementioned limitations still applied to these personal computer based systems.

In summary, these home banking systems shared many common drawbacks. For example, the burden of pre-registration and the listing of bills to be paid was borne by the consumer. The system required the processing of transactions in the same manner as a paper check, or an electronic check through the Automated Clearing House of the U.S. Banking System. The system presented the possibility that a transaction could be returned for non-sufficient funds reasons. In addition, a clearing time for each transaction of 3-5 days. Furthermore, in many cases, the prior art home banking systems required the use of specialized equipment by the customer (such as special purpose telephones equipped with electronic card readers or encryption devices), or the financial institution offering services to its customer base.

Moreover, although it is known in the field of accounting to call and manually, in conjunction an operator, verify that a payor had remitted a bill, there is no capability for the recipient of the funds (payee) to electronically immediately and positively inquire as to payment status after it was electronically authorized by the a debit card network. Therefore, what is needed is a universal, real-time bill payment system method and system that uses debit (ATM) cards without the requirement of a PIN (personal identification number) in conjunction with touch tone telephones to initiate consumer bill payments electronically and provide for the elimination of paper checks, as well as the use of the Automated Clearing House.

SUMMARY OF THE INVENTION

The foregoing problems are solved and a technical advance is achieved by method and apparatus of the present invention for an improved universal bill payment system. In a departure from the art, bills may be paid using a telephone connectable to at least one remote debit card network via a telepay system.

In a preferred embodiment, the method of the present invention comprises steps of prompting a caller to enter an access code using a keypad of said telephone, said access code identifying a current payment transaction; responsive to entry of an access code, determining whether said entered access code is valid; prompting said caller to enter an account number using said telephone keypad, said account

number identifying a payee in connection with said current payment transaction; responsive to entry of an account number, determining whether said entered account number is valid; prompting said caller to enter a debit card number using said telephone keypad, said debit card number identifying a payor in connection with said current payment transaction; responsive to entry of a debit card number, determining whether said entered debit card number is valid; prompting said caller to enter a payment amount using said telephone keypad; responsive to a determination that a payment amount has been entered and further responsive to a determination that said entered access code, account number and debit card number are valid accessing a remote debit card network associated with said entered debit card number, said accessed remote debit card network determining whether sufficient funds exist in an account associated with said entered debit card number to complete said current payment transaction, responsive to a determination that sufficient funds exist in said associated account, deducting said entered payment amount from said account associated with said entered debit card number, adding said entered payment amount to an account associated with said entered account number and informing said caller of an approval code issued by said accessed remote debit card network and storing said entered access code, account number, debit card number and payment amount in a transaction log file of said telepay system, and responsive to a determination that sufficient funds do not exist in said associated account, informing said caller that said current payment transaction has been declined and terminating said current payment transaction.

A technical advantage achieved with the invention is that it enables the use of debit card (ATM) networks for a real-time positively authorized bill payment that inquire electronically against balances on deposit PRIOR to the processing of the bill payment transaction, thus eliminating the Automated Clearing House to process individual transactions.

Another technical advantage achieved with the invention is that it enables real-time inquiry capability into the consumers balances at virtually any U.S. financial institution in order to verify funds on deposit prior to processing the transaction, thereby eliminating the possibility of a non-sufficient funds occurrence.

Another technical advantage achieved with the invention is the elimination of a PIN (personal identification number) in conjunction with debit card number usage in order to comply with Regulation E of the U.S. Banking Regulations by maintaining security and frequency of usage restrictions in the method and process.

Yet another technical advantage achieved with the invention is the integration of interactive voice response technology and debit card number authorization processing with electronic funds transfer bill payment method and process.

Still another technical advantage achieved with the invention is the elimination of any specialized equipment on the part of the consumer to process an electronic bill payment (i.e., personal computers, specialized telephones or terminals, etc.).

A further technical advantage achieved with the invention is the elimination of any pre-registration or "sign up" procedure on the part of the payor.

A final technical advantage achieved with the invention is the provision to the recipient of the bill payment of an electronic daily general ledger or activity summary, that balances back to the gross amount of electronic deposits

made in the designated bank accounts by the utilized debit card networks. Moreover, the system of the present invention offers to the consumer the advantage of anywhere, anyplace, anytime, convenience with complete spontaneity as to the system usage.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram of a telepay-system embodying features of the present invention.

FIGS. 2A-2G illustrate a flowchart of a bill payment transaction process of the present invention.

FIG. 3 is a flowchart of a settlement process of the present invention.

FIG. 4 is a flowchart of a payee inquiry process of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIG. 1, the general operation and structure of the system of the present invention will be described, it being understood that the operation of the system will be described in greater detail with reference to FIGS. 2A-2G, 3 and 4. When a consumer calls into the TelePay system 10 using a telephone 12, the consumer is prompted by an interactive voice response unit within the system 10 to input certain necessary information, to wit, payee access code, debit card number, account number, and amount. The TelePay system 10 then checks all of its internal files, including an account number velocity file 14, a debit card velocity file 16 and a negative file 18, to validate the access code entered, the card number presented, the validity of the account number, and if that card number and/or account number has ever processed a fraudulent transaction. If any of these internal checks into the TelePay system 10 process indicate fraud, then the transaction is denied. If all of the checks are passed, then the TelePay system 10 assembles the data into an authorization request message, which is electronically sent to a debit card network 20 for transmission to a financial institution 22 that issued the card for verification of balance on deposit.

The debit card network 20 receives a response as to whether or not there are sufficient funds on deposit to process the transaction requested by the consumer. The debit card network 20 prepares an appropriate deduction from the consumers account and prepares an appropriate deposit to the payee's account to be processed later. In addition any fees that are due from the payor are also preprocessed at this time. The debit card network then sends a message to the TelePay system 10 while the consumer is still on the telephone 12 line. The TelePay system 10 will then translate the numeric data received into an audible verbal response transmitted to the consumer via the telephone 12.

Settlement, as described in greater detail with reference to FIG. 3, is defined herein as the methodology of debiting and crediting the appropriate accounts affected by the above-described transaction. These accounts would affect the payor, the payee, and the TelePay system 10 for any transaction fee. The debit card network 20 will initiate this process. The debit card network 20, however will only deposit a TOTAL of the days transactions into the payee's account. The network has no capability to discern which consumer paid how much. It then becomes the responsibility of the TelePay system 10 to detail the specific account numbers and amount of payments that were made that day. This is accomplished by a computer dial-up link (RJE) 24

from the TelePay system 10 to the payee's billing system 26. The TelePay system 10 will also bill the payee on a monthly basis for 800 telephone line usage (if any). The accounts receivable department of the payee is also provided with the capability to call into the TelePay system 10 to inquire as to if and when a consumer initiated a payment.

A single 800 number is used by the TelePay system 10. Technology allows for a virtually unlimited number of telephone lines to terminate on the same number, limited only by the compliment of computer hardware and its capabilities that are running the system. The caller will be asked to enter the access code of the bill to be paid. This access code typically will be printed on the bottom of the statement in an obvious manner and is a requirement of all payees utilizing the service. The code will identify the payee within the TelePay system 10 and will activate the TelePay software to verbalize the customer's selection in order to give positive re-enforcement as is the case with all customer input (i.e. "you have elected to pay Florida Power and Light in Miami, Fla." Press 1 if this is correct and you wish to continue, or press 2 if incorrect"). If incorrect, the customer will be asked to input another access code, or to terminate the call. Assuming the proper access code is confirmed, the next step will be the entering of the account number of the bill to be paid, as this number also appears on the monthly statement. All selections will be verbally re-enforced.

The next step will be the entering of the debit (ATM) card number. Various TelePay system 10 checks will be done on this entry. Verbal re-enforcement of the numbers entered is again given to the user ("You have entered 5419 23485 4657. Please press 1 if correct or 2 if incorrect"). The TelePay system 10 will then instruct the user to enter the amount of the payment and verbal positive re-enforcement will be given. If all has been acknowledged positively up to this point, then the system will give a verbal summary of the transaction and give the customer a final opportunity to validate the entries ("Press 1 if correct, or press 2 if incorrect"). When the transaction has been positively re-enforced by the user, the TelePay system will then build an authorization request that will be sent out to the existing debit (Electronic Funds Transfer) networks. When the transaction has been authorized, the system will once again give positive re-enforcement to the user ("Your payment to Dallas Gas and Electric in the amount of \$124.56 has been paid from your ATM card account number 5419 23485 4657. Your authorization number for this transaction is XXXXXXXX. Please make a note of this authorization code for future reference. If you would like to hear the authorization code for this transaction again, press 1. If you would like to pay another bill press 2. If you are finished press 3").

If the user elects to pay another bill during the same session, then the system will retain the previously entered card number and ask the caller if the next bill being paid is to be paid with the same card, or allow the opportunity to enter a new card number.

All of the debit (Electronic Funds Transfer) networks are accustomed to the assessment, debiting and crediting of fees to the issuers and acquirers of debit (ATM) and credit transactions. In many cases, a 75¢ fee for a customer to use an ATM card at an ATM that is not owned by the card issuing bank involves the dividing of that fee into increments as small as 5¢. In this manner all networks that are accessed are compensated to assist in the authorization and routing of the transaction. All of these fees are electronically credited to the entity that earned the revenue as a result of a contractual relationship with that particular network. This process happens every working day at a predetermined "cut off" period

that separates business days and is refereed to in the industry as "settlement".

Never before, however, has a transaction been presented to the debit networks for a real-time authorized bill payment initiated by the consumer from a touch tone telephone with the-debit card used as the transaction vehicle. Additionally, it has never been done without the requirement of a PIN (personal identification number) and still maintain transaction security. In the TelePay System 10, when a transaction is entered by a consumer, and subsequently passed on to an outside debit card network for authorization, a number of things happen.

Assuming that the transaction is authorized, then any fee that the customer is paying, in addition to the actual bill payment, is automatically deducted from the payor's account immediately and added to the amount that the debit card network will owe TelePay and the payee at settlement. The amount of the bill that was paid is automatically added to the amount that will be credited to the payee at the end of the business day (every payee is required to provide a bank account number that will be used to electronically credit the days receipts). TelePay's bank account will, in a like manner, be automatically credited for the transaction fee. Any network usage fees that have to be paid to process the transaction by the use of an debit card network will be electronically paid by the TelePay system 10 to the appropriate service provider. Once a day at TelePay's settlement time, each payee participating in the system will receive the electronic on-line detail summary of the days individual transactions for posting to the consumer's account.

A flowchart illustrating the operation of a bill payment transaction process of the TelePay system 10 is shown in FIGS. 2A-2G. The process is initiated by a user's calling into the system 10. In step 200, a general purpose welcome message that announces and instructs the caller in the manner with which the system can be used is transmitted to the user via the telephone 12 (FIG. 1). In step 202, the user is prompted to enter a payee access code, which is assigned by the embodiment of the invention in the form of a service and the user is made aware of this code due to its printed presence on the monthly customer statement, statement stuffers or other printed handouts. This code is what distinguishes one payee from the other, and is the identifier that causes the system 10 (FIG. 1) to record the transaction in the appropriate payee record file.

After the caller enters the access code, it is electronically checked against the list of authorized payees participating in the system 10 in step 204. In step 206, a determination is made whether the entered access code is valid. If the access code is invalid, in step 208, the system 10 checks to determine whether this is the third incorrect entry of an access code. If this is not the third incorrect entry of the access code, in step 210, the system 10 instructs the caller that the access code is invalid, and offers the caller to opportunity to re-enter the access code in step 202. If this is the third incorrect entry of an access code, in step 212, the system 10 instructs the caller to check the access code information and call again.

If the access code is entered properly within three attempts, in step 214, the caller is prompted to enter the account number of the bill that they are paying. In step 216, the system 10 checks the account number for validity. The validity check is based on the methodology that the payee uses to verify account numbers and will vary according to payee. The system 10 will have all of the participating payees verification methodologies. This methodology could

be a MOD 10 or MOD 11 check digit routine with or without a check digit in it's most basic implementation. In a more sophisticated environment, the system would have in it's database, a list of all the valid account numbers for that particular payee, commonly known to those skilled in the art as a "shadow file."

In step 218 (FIG. 2B), a determination is made as to the validity of the account number entered. If the entered account number is not valid, in step 220, a determination is made as to whether this is the third incorrect entry. If it is not the third incorrect entry, in step 221 (FIG. 2A), the caller is informed that the entry is invalid and is given an opportunity to reenter the account number. If the entry attempt is the third invalid attempt, in step 222, the caller is instructed to check their information and call again. If a valid account number is entered within three attempts, in step 224, the system 10 requests the caller to enter the debit card number.

In step 226, the debit card number is checked for validity. This validity check is done via the MOD 10 algorithm that is the basis for debit card issuance used by financial institutions. Using this method that is commonly used, and familiar to those skilled in the art, gives a great level of assurance that the number that was entered by the caller was entered properly. In step 228, a determination is made whether the entered debit card number is valid. If the entered debit card number is not valid, in step 230, a determination is made whether this is the third invalid entry if this is not the third invalid entry, in step 232, the caller is instructed of the invalid entry and then, in step 224, is requested to enter a debit card number.

If this is the third invalid entry, in step 234, the system 10 requests the caller to check their information and call again. Once a valid debit card number is entered within three attempts, in step 236 (FIG. 2C), the caller is requested to enter the dollar amount (without a decimal) of the bill to be paid. In step 238, the system 10 repeats the entered amount to the caller and, in step 240, asks the caller to indicate whether the entry is correct by depressing a key on the keypad of the telephone 12. In step 242, a determination is made whether the caller responded that the entry is correct. If the entry is not correct, in step 244, a determination is made whether this is the third incorrect entry. If this is not the third incorrect entry, in step 236, the caller is requested to enter a new dollar amount. If this is the third incorrect entry, in step 246, the caller is requested to check their information and call again.

If the caller enters a correct amount within three attempts, in step 248 (FIG. 2D), the system 10 initiates a velocity file 14 check. The velocity file 14 is an internal file to this invention that restricts the number of times that a payor account number can be paid electronically using the system 10 over a 30 day period. The numerical value of the velocity file is individually selectable by each payee participating in the system 10, and will prevent excessive payments from their customers that have the potential for fraud. In step 250, if payments are located in the velocity file 14 that indicate to the system 10 a violation of the number of transactions permitted over a 30 day period by the payee, in step 252, the caller is notified that their transaction cannot be processed, due to the excessive frequency of usage. If the transaction is within the number allowed by the payee over a thirty day period, in step 254, the system 10 performs the velocity file check on the debit card number that the caller entered.

The numerical value of the debit card velocity file 16 is determined by the system 10 based on, but not limited to, historical usage data of all payees and payors over a given

period of time. This value is variable and is achieved generally by multiplying the total number of payees participating in the system times the total number of payments allowed by each payee over a 30 day period. If the system 10 determines that the transaction by the payor exceeds the debit card velocity file criteria, in step 256, the caller is notified that the transaction cannot be processed due to the frequency of the number of uses of the debit card used to process transactions over a thirty day period.

If the transaction by the payor does not exceed the debit card velocity file criteria, in step 258 (FIG. 2E), the system 10 determines whether either the payor account number or the debit card number is contained in the negative file 18 comprising a database of negative accounts stored on the system 10. The purpose of the negative file 18 maintained by the system 10 is to prevent debit card numbers and account numbers that have been involved in fraudulent transactions from initiating another transaction. This file is updated by payees participating in the system by written notification to the service. An employee of the service would then update the system.

If the system 10 determines that a match on either payor account number or debit card number has been found, in step 260, the caller is informed that the transaction cannot be processed. If there is not a match found on the negative file 16, then the details of the transaction are summarized to the caller verbally on the interactive voice response system in step 262. In step 264, the caller is prompted to begin the processing of the transaction by pressing one (1) on the telephone keypad, or by pressing two (2) on the telephone keypad to abort the transaction. In step 266, the system 10 checks the caller's response. If two has been depressed by the caller, in step 268, the system 10 thanks the caller and terminates the call.

If one has been depressed by the caller, in step 270 (FIG. 2F), the system 10 outdials via a normal telephone line to an appropriate debit card network, such as the network 20 for processing. A debit card network is a third party processor that will process the transaction for a fee, providing connectivity to either the financial institution that issued the debit card number, or another debit card network that has the capability to connect with the financial institution that issued the debit card number.

Those skilled in the art are aware that a debit card network, i.e. Pulse in Houston, Tex., MOST in Washington, D.C., Honor in Maitland, Fla., etc., process primarily ATM (Automated Teller Machine) transactions, and do not rely on the Automated Clearing House (ACH) to process individual transactions. In addition to the face value of the bill to be paid, the system adds a service charge that the caller will electronically pay for use of the convenience of the system. Through the use of the debit card network, rather than the ACH, the transaction is positively verified against funds on deposit prior to the processing of the transaction. In step 272, while the system 10 is outdialing to the debit card network 20, the system 20 plays a customized individually recorded marketing message for each payee utilizing the system 10, that will promote a service of the payee while the caller is awaiting approval. If the debit card network and the subsequent transmission to other debit card networks (if required) make the determination that funds are not available in the caller's account selected by the debit card number, then the transaction will be declined.

In step 274, the system 10 awaits a reply from the debit card network 20. In step 276, the system 10 then makes a determination on the disposition of the transaction based on

the response received back from the debit card network 20. If the response from the debit card network 20 indicates to the system 10 a declination, with which those skilled in the art are familiar, in step 278, the system 10 informs the caller that the transaction was declined by the financial institution that issued their debit card number. If the response from the debit card network 20 indicates an approval, the caller will be verbally informed of the approval code in step 280. In step 282, the approved transaction is updated in a system transaction log file that will later become the basis for the transmission for payment data to each individual payee. The transaction log file contains the debit card number, payor account number of the bill paid, amount of the bill paid, time/date, and approval code. The log file is individually kept for each payee participating in the system for later electronic transmission for billing system update.

In step 284 (FIG. 2G), when a transaction is successfully completed, the aforementioned debit card number velocity file that was checked as part of the pre-processing procedures is updated to reflect the transaction. In step 286, the velocity file for the account number of the bill that was paid is updated to reflect the transaction. In step 288, the system 10 asks the caller if he or she would like to pay another bill by requesting the caller to press one (1) to pay another bill, or two (2) to terminate the call. In step 290, the system 10 makes a determination as to whether the caller would like to make another payment, based on the response indicated by the caller. If a one was pressed, the system 10 prompts the caller for another access code in step 292 (FIG. 2A). If a two is pressed, the system 10 terminates the call in step 292.

FIG. 3 is a flowchart of the settlement process of the present invention. After close of the business day, by the debit card network 20, the debit card network 20 begins to move the funds electronically; a process with which those skilled in the art are familiar. At that point the system 10 is in a position to transmit the detail of the days transactions to the individual payees that will be receiving electronic credits from the debit card network 20. The debit card networks transmit only the gross dollar amount of funds for crediting to each payee. The system 10 performs the actual detail of the electronic transmission of individually paid accounts. The system 10 will recognize the time of day by the internal clock common to most computer systems, and select the first payee in the aforementioned transaction log file. In step 300, the system 10 will outdial using an ordinary telephone line into the first payee on the system in an effort to connect to the computer billing system 26 (FIG. 1).

Once a telephonic connection is established, in step 302, the system 10 begins the process of transmitting the payor account numbers and amounts of the bills that were paid since the last settlement period using the system 10. This process is known to those skilled in the art as remote job entry (RJE). In step 314, the system 10 determines whether there are other files to be transmitted. In step 306, the system 10 outdials the appropriate telephone number established in advance to establish a telephonic RJE link with the next payee in step 302, in a manner similar to the aforementioned, the transactions that the system 10 performed in favor of that particular payee will be transmitted to that payee's computer billing system 10. Once all the files have been transmitted, the settlement process is terminated in step 308.

FIG. 4 is a flowchart of a payee inquiry process of the present invention, which provides a payee with the ability to initiate a telephone call into the present invention operating as a third party to the transaction, in order that payment information can be discerned in conjunction with a touch tone telephone. The process is initiated by a payee calling

into the system 10. In step 400, the system 400 will ask the caller to input a security code, which is assigned to each payee and is different for each payee. The input of a proper code will indicate to the system which payee payments are to be inquired upon. Without a proper code, no inquiry access is permitted. It is important to recognize that this system capability is for the payee, and not for the actual payor of the bill. This system capability assists in past due collection activity.

In step 402, the system 10 checks its internal data files to ascertain the validity of the code entered. If an improper code is entered, in step 404, the system 10 informs the caller that the code is invalid. If the entered code matches one that was contained in the system database, in step 406, the system 10 requests the caller to enter the account number of the customer whose bill is being inquired upon. After the caller enters the account number, in step 408, the system attempts to locate it on the system database. If the system 10 cannot locate the account number, in step 410, the caller is informed that no payment exists for the entered account number and is given an opportunity to enter another account number in step 406. If the entered account number is located, in step 412, the system 10 informs the caller of the details of the transaction, to wit, time, date, amount, and authorization number of the payment. In step 414, upon completion of the audio text information, the caller is asked whether he or she has another inquiry to perform. If so, in step 406, the system 10 prompts the caller to enter the account number; otherwise, the system 10 terminates the call in step 416.

The crux of this invention is that bill payment transactions have never been presented to the debit networks for a real-time authorization initiated by the consumer from a touch tone telephone with the debit card number used as the transaction vehicle. Additionally, this process has never been done without the requirement of a PIN (personal identification number) and still maintain an assemblage of transaction security. In the TelePay System, when a transaction is entered by a consumer, and subsequently passed on to an outside debit card network for authorization, a number of things happen. Assuming that the transaction is authorized, then any fee that the customer is paying, in addition to the actual bill payment, is automatically deducted from the payor's account immediately and added to the amount that the debit card network will distribute between TelePay and the payee at settlement. The amount of the bill that was paid is automatically added to the amount that will be credited to the payee at the end of the business day (every payee is required to provide a bank account number that will be used to electronically credit the days receipts). TelePay's bank account will, in a like manner, be automatically credited for the transaction fee. Any network usage fees that have to be paid to process the transaction by the use of an debit card network will be electronically paid by TelePay to the appropriate service provider. Once a day at TelePay's settlement time, each payee participating in the system will receive the electronic on-line detail summary of the days individual transactions for posting to the consumer's account.

The following criteria and conditions are part of the TelePay method and unique process prior to the acceptance of a debit card number into the system in order to ensure a proper transaction has been presented and to add a level of usage security. First, a service address (telephone number or residential electricity site, etc.) or payee account number can only be the recipient of a specific limited number of payments within 30 days that is selectable by the funds recipient and a velocity file by account number is kept at the TelePay system tracking this limitation. In addition, a debit card

number can only be used in the TelePay system a specific limited number of times based on a recipient of funds selectable parameter and current recipient of funds (payee) negative files due to adverse experience are added to the TelePay system prior to implementation.

Still further, any consumer chargebacks will prevent that customer's telephone number/electricity service address number and that credit/debit card number to have system access. Appropriate additions will be made to the negative file unless specific overrides are requested by the funds recipient. Also, all transactions will be routed electronically to the card issuing entity/network by the TelePay system for positive authorization as to card acceptability, credit limit guidelines, payment status, balance availability, and any and all criteria that the issuer deems appropriate.

Additionally, the TelePay system will provide records of all declinations by card number and by telephone number, electric service account number, or payor account number, whichever is appropriate and a check will be done on all debit card numbers entered into the TelePay system to ensure that the input number is an assigned number within the criteria of the issuing entities, as well as on service address account numbers to insure that the proper number and sequence of digits have been entered to add an additional level of accuracy to the numeric entry process. Moreover, the customer will always be given positive audio reinforcement at critical steps during the data entry process to assist in the entry of accurate information and transaction declinations due to non-sufficient funds will be audio referred for the consumer to contact their card issuing institution.

Accordingly, it is clear that the TelePay system is a technologically advanced and consumer convenient process. The consumer may use the TelePay system to pay bills at will, spontaneously, without any personal investment in equipment, and any requirement of pre-registration. The use of the TelePay system is not tied to a specific locations, as any touch tone telephone will suffice. Use of this unique process will eliminate the use of stamps, envelopes, the U.S. Postal Service, and the necessity of going to a mailbox. Personal computers and the lack of realistic portability are problems that do not exist in the present invention. Receipt of payment is also assured and issues of "lost in the mail" or mail delays will no longer exist. Debit cards will now have true utility as transaction vehicles in order to electronically present payment as opposed to paper checks. Older technology of pre-registration and direct debit registration systems will become obsolete.

It is understood that the present invention can take many forms and embodiments. The embodiments shown herein are intended to illustrate rather than to limit the invention, it being appreciated that variations may be made without departing from the spirit of the scope of the invention. For example, it is anticipated that the payor may be an individual or an institution, such as a corporation or association.

Although illustrative embodiments of the invention have been shown and described, a wide range of modification, change and substitution is intended in the foregoing disclosure and in some instances some features of the present invention may be employed without a corresponding use of the other features. Accordingly, it is appropriate that the appended claims be construed broadly and in a manner consistent with the scope of the invention.

What is claimed is:

1. A method of paying bills using a telephone connectable to at least one remote payment card network via a payee's

agent's system, wherein a caller places a call using said telephone to initiate a spontaneous payment transaction that does not require pre-registration, to a payee, the method comprising the steps of:

- 5 prompting the caller to enter an account number using the telephone, the account number identifying an account of a payor with the payee in connection with the payment transaction;
- responsive to entry of an account number, determining whether the entered account number is valid;
- 10 prompting the caller to enter a payment number using the telephone, the payment number being selected at the discretion of the caller from any one of a number of credit or debit forms of payment;
- responsive to entry of the payment number, determining whether the entered payment number is valid;
- 15 prompting the caller to enter a payment amount for the payment transaction using the telephone;
- responsive to a determination that a payment amount has been entered and further responsive to a determination that the entered account number and payment number are valid, and during the call:
 - 20 accessing a remote payment network associated with the entered payment number, the accessed remote payment network determining, during the call, whether sufficient available credit or funds exist in an account associated with the entered payment number to complete the payment transaction;
 - responsive to a determination that sufficient available credit or funds exist in the associated account, charging the entered payment amount against the account associated with the entered payment number, adding the entered payment amount to an account associated with the entered account number, informing the caller that the payment transaction has been authorized, and storing the account number, payment number and payment amount in a transaction log file of the system during the call; and
 - 25 responsive to a determination that sufficient available credit or funds do not exist in the associated account, informing the caller during the call that the current payment transaction has been declined and terminating the current payment transaction.
- 30 2. The method of claim 1 wherein said payment number is a debit card number.
- 35 3. The method of claim 1 wherein said payment number is a credit card number.
4. The method of claim 1 wherein the payment amount represents a partial payment amount determined by the caller.
- 50 5. The method of claim 1 wherein the step of adding the entered payment amount to an account associated with the entered account number and informing the caller that the payment transaction has been authorized utilizes an approval code issued by the accessed remote payment card network.
- 55 6. The method of claim 5 wherein the step of storing the account number, payment number and payment amount in a transaction log file also stores the approval code in the transaction log file.
7. The method of claim 1 further comprising the step of:
 - 60 responsive to a determination that sufficient available credit or funds do not exist in the associated account, informing the caller during the call that the current payment transaction has been declined and terminating the current payment transaction.
- 65 8. The method of claim 1 wherein said steps of prompting said caller are performed during said call by an interactive voice response unit of said payee's agent's system.

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9. The method of claim 1 further comprising, after each of said determining steps:

informing said caller of results of said determination using an interactive voice response unit of said payee's agent's system; and

terminating said current payment transaction of said results of said determination are negative.

10. The method of claim 1 further comprising, prior to said accessing:

summarizing details of said current payment transaction to said caller using an interactive voice response unit of said payee's agent's system;

prompting said caller to accept said current payment transaction; and

responsive said caller not accepting said current payment transaction, terminating said current payment transaction.

11. The method of claim 1 wherein said step of determining whether said entered account number is valid further comprises:

responsive to a determination that said entered account number is not valid, prompting said caller to enter another account number;

repeating said determining and said prompting up to a predetermined number of times; and

terminating said current payment transaction if a valid account number is not entered within said predetermined number of times.

12. The method of claim 1 further comprising periodically performing a settlement process, said settlement process comprising:

accessing a computer billing system of said payee; and transmitting to said payee's computer billing system said stored access code, account number, payment card number and payment amount from said transaction log file.

13. A method of paying bills using a telephone device connectable to at least one remote payment network via a payee's agent's system, wherein a connection is made using the telephone device to initiate a payment transaction that does not require pre-registration, the method comprising the steps of:

prompting for entry of a valid account number using the telephony device, the account number identifying an account of a payor in connection with the payment transaction;

prompting for entry of a valid payment number using the telephony device, the payment number being selected from any one of a number of forms of payment;

prompting for entry of a payment amount using the telephony device;

responsive to entry of a payment number and payment amount, accessing a remote payment network associated with the entered payment number, the accessed remote payment network determining, during the connection, whether sufficient available credit or funds exist in an account associated with the entered payment number to cover the entered payment amount; and

responsive to a determination that sufficient available credit or funds exist in the associated account, debiting the entered payment amount from the account associated with the entered payment number, crediting the entered payment amount to an account associated with the entered account number, and storing the account

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number, payment number and payment amount in a transaction log file of the system during the connection.

14. The method of claim 13 wherein said payment number is a credit card number or a debit card number.

15. The method of claim 13 wherein the payment amount represents a partial payment amount.

16. The method of claim 13 wherein the step of adding the entered payment amount to an account associated with the entered account number and informing the caller that the payment transaction has been authorized utilizes an approval code issued by the accessed remote payment card network.

17. The method of claim 16 wherein the step of storing the account number, payment number and payment amount in a transaction log file also stores the approval code in the transaction log file.

18. A system for enabling a payor to pay bills using a telephone connectable to at least one remote payment network via a payee's agent's system, wherein a caller places a call using the telephone to initiate a payment transaction that does not require payor pre-registration, the system comprising:

means for prompting the caller to enter a valid account number using the telephone, the account number identifying an account of the payor with the payee in connection with the payment transaction;

means for prompting the caller to enter a valid payment number using the telephone, the payment number being selected at the discretion of the caller from any one of a number of forms of payment;

means for prompting the caller to enter a payment amount using the telephone;

means for responsive to entry of a payment number and payment amount, accessing a remote payment network associated with the entered payment number, the accessed remote payment network determining, during the call, whether sufficient available credit or funds exist in an account associated with the entered payment number to cover the entered payment amount; and

means responsive to a determination that sufficient available credit or funds exist in the associated account, for debiting the entered payment amount from the account associated with the entered payment number, crediting the entered payment amount to an account associated with the entered account number, and

means responsive to a determination that sufficient available credit or funds exist in the associated account, for debiting the entered payment amount from the account associated with the entered payment number, crediting the entered payment amount to an account associated with the entered account number, and storing the account number, payment number and payment amount in a transaction log file of the system during the call.

19. The system of claim 18 wherein said payment number is a debit card number.

20. The system of claim 18 wherein said payment number is a credit card number.

21. The system of claim 18 wherein the means for adding the entered payment amount to an account associated with the entered account number and informing the caller that the payment transaction has been authorized utilizes an approval code issued by the accessed remote payment card network.

22. The system of claim 21 wherein the step of storing the account number, payment number and payment amount in a transaction log file also stores the approval code in the transaction log file.

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