maintain excess funds in their bank accounts to guard against an overdraft, when those excess funds could be used elsewhere.

BRIEF DESCRIPTION OF THE DISCLOSURE

[0004] In one aspect, a disbursement computing device for transmitting disbursements from a payor to a payee through a payment processing network is provided. The disbursement computing device is in communication with the payment processing network and is configured to receive a disbursement message including at least one disbursement payment instruction for transferring funds from a commercial disbursement financial account of a payor to a financial account of a payee. Each disbursement payment instruction includes a payor identifier, a payee identifier, and a disbursement amount. The disbursement computing device is also configured to automatically generate, for each disbursement payment instruction, a purchase authorization request message that includes the disbursement amount and a disbursement authorization identifier, wherein the disbursement authorization identifier associates each purchase authorization request message with a corresponding disbursement payment instruction, generate a table associating each disbursement authorization identifier with a corresponding disbursement payment instruction; automatically transmit, for each disbursement payment instruction, the corresponding purchase authorization request message to an issuer bank associated with the payor. The disbursement computing device is further configured to receive a first payment authorization message associated with a first of the purchase authorization request messages from the issuer bank associated with the payor that the commercial disbursement financial account has a balance that is at least equal to the disbursement amount, , the first payment authorization message including the disbursement authorization identifier; store, in the table, an indicator that the first of the purchase authorization request messages was validated by the issuer bank, wherein the indicator is associated with the corresponding disbursement payment instruction; and initiate a transfer of funds equal to the disbursement amount from the financial account of the payor to the financial account of the payee.

[0005] In another aspect, a method for transmitting disbursements from a payor to a payee through a payment processing network is provided. The method is implemented by a disbursement computing device in communication with a payment processing network. The disbursement computing device includes one or more processors in communication with a memory. The method includes receiving a disbursement message

including at least one disbursement payment instruction for transferring funds from a commercial disbursement financial account of a payor to a financial account of a payee. Each disbursement payment instruction includes a payor identifier, a payee identifier, and a disbursement amount. The method also includes automatically generating, for each disbursement payment instruction, a purchase authorization request message that includes the disbursement amount and a disbursement authorization identifier, wherein the disbursement authorization identifier associates each purchase authorization request message with a corresponding disbursement payment instruction; generating a table associating each disbursement authorization identifier with a corresponding disbursement payment instruction; automatically transmitting, for each disbursement payment instruction, the corresponding purchase authorization request message to an issuer bank associated with the payor. The method further includes receiving a first payment authorization message associated with a first of the purchase authorization request messages from the issuer bank associated with the payor that the commercial disbursement

financial account has a balance that is at least equal to the disbursement amount, the first payment authorization message including the disbursement authorization identifier, storing, in the table, an indicator that the first of the purchase authorization request messages was validated by the issuer bank, wherein the indicator is associated with the corresponding disbursement payment instruction; and initiating a transfer of funds equal to the disbursement amount from the financial account of the payor to the financial account of the payee.

[0006] In yet another aspect, a non-transitory computer-readable storage medium having computer-executable instructions embodied thereon is provided. When executed by a disbursement computing device coupled to a payment network and having at least one processor coupled to a memory, the computer-executable instructions cause the disbursement computing device to receive a disbursement message including at least one disbursement payment instruction for transferring funds from a commercial disbursement financial account of a payor to a financial account of a payee. Each disbursement payment instruction includes a payor identifier, a payee identifier, and a disbursement amount. The computer-executable instructions also cause the disbursement computing device to automatically generate, for each disbursement payment instruction, a purchase authorization request message that includes the disbursement amount and a disbursement authorization identifier, wherein the disbursement authorization identifier associates each purchase authorization request message with a corresponding disbursement payment instruction; generate a table associating each disbursement authorization identifier with a corresponding disbursement payment instruction; automatically transmit, for each disbursement payment instruction, the corresponding purchase authorization request message to an issuer bank associated with the payor. The computer-executable instructions further cause the disbursement computing device to receive a first payment authorization message associated with a first of the purchase authorization request messages from the issuer bank associated with the payor that the commercial disbursement financial account has a balance that is at least equal to the disbursement amount, , the first payment authorization message including the disbursement authorization identifier; store, in the table, an indicator that the first of the purchase authorization request messages was validated by the issuer bank, wherein the indicator is associated with the corresponding disbursement payment instruction and initiate a transfer of funds equal to the disbursement amount from the financial account of the payor to the financial account of the payee.

[0007] In one aspect, a disbursement computing device for transmitting disbursements from a payor to a payee through a payment processing network is provided. The disbursement computing device is in communication with the payment processing network and is configured to receive a registration request message from an issuer bank associated with a payor. The registration request message includes a primary account number of a commercial disbursement financial account associated with the payor. Additionally, the disbursement computing device is configured to assign a payor identifier to the primary account number and receive a disbursement message including at least one disbursement payment instruction for transferring funds to a financial account of a payee, wherein each disbursement payment instruction includes the payor identifier, a payee identifier, and a disbursement amount. For each disbursement payment instruction, the disbursement computing device transmits a purchase authorization request message to the

CLAIMS

1. A disbursement computing device for transmitting disbursements from a payor to a payee through a payment processing network, said disbursement computing device is in communication with the payment processing network and is configured to:

receive a disbursement message including at least one disbursement payment instruction for transferring funds from a commercial disbursement financial account of a payor to a financial account of a payee, each disbursement payment instruction including a payor identifier, a payee identifier, and a disbursement amount;

automatically generate, for each disbursement payment instruction, a purchase authorization request message that includes the disbursement amount and a disbursement authorization identifier, wherein the disbursement authorization identifier associates each purchase authorization request message with a corresponding disbursement payment instruction;

generate a table associating each disbursement authorization identifier with a corresponding disbursement payment instruction;

automatically transmit, for each disbursement payment instruction, the corresponding purchase authorization request message to an issuer bank associated with the payor;

receive a first payment authorization message associated with a first of the purchase authorization request messages from the issuer bank associated with the payor that the commercial disbursement financial account has a balance that is at least equal to the disbursement amount, the first payment authorization message including the disbursement authorization identifier; store, in the table, an indicator that the first of the purchase authorization request messages was validated by the issuer bank, wherein the indicator is associated with the corresponding disbursement payment instruction; and

initiate a transfer of funds equal to the disbursement amount from the financial account of the payor to the financial account of the payee.

2. The disbursement computing device of Claim 1 further configured to:

receive a registration request message from the issuer bank associated with the payor, the registration request message including a primary account number of the financial account associated of the payor; and

assign the payor identifier to the primary account number.

3. The disbursement computing device of Claim 1 further configured to transmit the first payment authorization message to a payee bank associated with the payee.

account of a payor to a financial account of a payee, each disbursement payment instruction including a payor identifier, a payee identifier, and a disbursement amount;

automatically generating, for each disbursement payment instruction, a purchase authorization request message that includes the disbursement amount and a disbursement authorization identifier, wherein the disbursement authorization identifier associates each purchase authorization request message with a corresponding disbursement payment instruction;

generating a table associating each disbursement authorization identifier with a corresponding disbursement payment instruction;

automatically transmitting, for each disbursement payment instruction, the corresponding purchase authorization request message to an issuer bank associated with the payor;

receiving a first payment authorization message associated with a first of the purchase authorization request messages from the issuer bank associated with the payor that the commercial disbursement financial account has a balance that is at least equal to the disbursement amount, the first payment authorization message including the disbursement authorization identifier;

storing, in the table, an indicator that the first of the purchase authorization request messages was validated by the issuer bank, wherein the indicator is associated with the corresponding disbursement payment instruction; and

initiating a transfer of funds equal to the disbursement amount from the financial account of the payor to the financial account of the payee.

9. The method of Claim 8 further comprising:

receiving a registration request message from the issuer bank associated with the payor, the registration request message including a primary account number of the financial account associated of the payor; and

assigning the payor identifier to the primary account number.

10. The method of Claim 9 further comprising transmitting the first payment authorization message to a payee bank associated with the payee.

11. The method of Claim 10 further comprising receiving a payment approval message from the payee bank that the financial account of the payee is valid.

12. The method of Claim 8 further comprising transmitting a notification message to the payee that funds in the disbursement amount have been transferred to the financial account of the payee.

13. The method of Claim 8, wherein the at least one disbursement payment instruction includes a plurality of disbursement payment instructions, said method further comprising:

consolidating purchase approval requests and denials associated with each of the plurality of disbursement payment instructions in a data file; and

transmitting the data file to the issuer bank associated with the payor for settlement.

14. The method of Claim 8, wherein initiating a transfer of funds equal to the disbursement amount from the financial account of the payor to the financial account of the payee comprises:

initiating a debit of funds in the disbursement amount from the financial account of the payor to a settlement financial account at the issuer bank associated with the payor; and

initiating a credit of funds in the disbursement amount to the financial account of the payee.

15. A non-transitory computer-readable storage medium having computer-executable instructions embodied thereon, wherein when executed by a disbursement computing device coupled to a payment network and having at least one processor coupled to a memory, the computer-executable instructions cause the disbursement computing device to:

receive a disbursement message including at least one disbursement payment instruction for transferring funds from a commercial disbursement financial account of a payor to a financial account of a payee, each disbursement payment instruction including a payor identifier, a payee identifier, and a disbursement amount;

automatically generate, for each disbursement payment instruction, a purchase authorization request message that includes the disbursement amount and a disbursement authorization identifier, wherein the disbursement authorization identifier associates each purchase authorization request message with a corresponding disbursement payment instruction;

generate a table associating each disbursement authorization identifier with a corresponding disbursement payment instruction;

automatically transmit, for each disbursement payment instruction, the corresponding purchase authorization request message to an issuer bank associated with the payor;

receive a first payment authorization message associated with a first of the purchase authorization request messages from the issuer bank associated with the payor that the commercial disbursement financial account has a balance that is at least equal to the disbursement amount, the first payment authorization message including the disbursement authorization identifier;

store, in the table, an indicator that the first of the purchase authorization request messages was validated by the issuer bank, wherein the indicator is associated with the corresponding disbursement payment instruction; and

initiate a transfer of funds equal to the disbursement amount from the financial account of the payor to the financial account of the payee.

16. The non-transitory computer-readable storage medium of Claim 15, wherein the computer-executable instructions further cause the disbursement computing device to:

receive a registration request message from the issuer bank associated with the payor, the registration request message including a primary account number of the financial account associated of the payor; and

assign the payor identifier to the primary account number.

17. The non-transitory computer-readable storage medium of Claim 15, wherein the computer-executable instructions further cause the disbursement computing device to:

transmit the first payment authorization message to a payee bank associated with the payee; and

receive a payment approval message from the payee bank that the financial account of the payee is valid.

18. The non-transitory computer-readable storage medium of Claim 15, wherein the computer-executable instructions further cause the disbursement computing device to transmit a notification message to the payee that funds in the disbursement amount have been transferred to the financial account of the payee.

19. The non-transitory computer-readable storage medium of Claim 15, wherein the at least one disbursement payment instruction includes a plurality of disbursement payment instructions, and wherein the computer-executable instructions further cause the disbursement computing device to:

consolidate purchase approval requests and denials associated with each of the plurality of disbursement payment instructions in a data file; and