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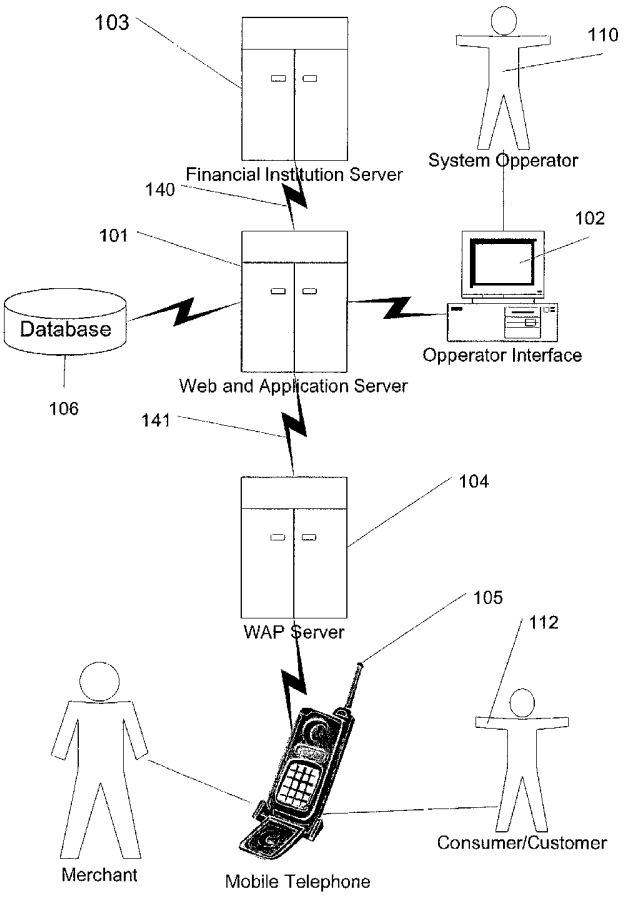
(54) Title: CREDIT CARD PAYMENT BY MOBILE PHONE



(57) Abstract: A method of transacting financial transactions using a handheld internet network data enabled wireless device. The method including: receiving transaction information from the wireless device; forwarding the transaction information to a financial transaction server for processing; receiving information from the transaction server on the successful processing or otherwise of the transaction and sending information on the successful processing or otherwise of the transaction to the wireless device. The steps of receiving and sending information to and from the wireless device are conducted using an internet network data protocol.

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"CREDIT CARD PAYMENT BY MOBILE PHONE"

FIELD OF THE INVENTION

The present invention relates to a system and method for providing merchants with a way to collect payment for goods and services they provide. In particular the present invention relates to providing a method of payment using a mobile phone.

SUMMARY OF THE PRIOR ART

There are a number of common ways to pay for goods and services supplied by a mobile merchant including cash, cheque, mobile EFTPOS, credit card "zip zap" machine or by account. Disadvantages exist for both the merchant and the consumer with each of these methods.

Cash is inconvenient for the consumer and merchant as it carries the risk of loss and banking costs. Payment by cheque or account has credit risks for the merchant and the requirement to chase up payment if the account is not satisfied or a cheque bounces. Running accounts has cash flow and administrative cost.

Mobile EFTPOS devices are large and expensive. The poor mans credit card processing device, a "zip zap" machine is big, clunky and does not provide real time authorisation.

It is the object of the present invention to overcome the abovementioned disadvantages in the prior art, or at least to provide the public with a useful choice.

SUMMARY OF THE INVENTION

Accordingly in a first aspect the present invention may be broadly be said to consist in a method of transacting a financial transaction with a handheld internet network data enabled wireless device including the steps of:

receiving transaction information from said wireless device;

forwarding said transaction information to a financial transaction server for processing;

receiving information from said transaction server on the successful processing or otherwise of the transaction; and

sending information on the successful processing or otherwise of the transaction to said wireless device,

wherein said steps of receiving and sending information to and from said wireless device are conducted using an internet network data protocol.

Preferably said wireless device is a cellular telephone.

Preferably said handheld internet network data enabled wireless device has a unique device identifier and said method including the steps of:

storing account information in association with at least one device identifier;

obtaining from said wireless device said unique device identifier; and

allowing said wireless device to conduct transactions if said unique identifier matches one of said at least one stored device identifier.

Preferably said method including the steps of:

storing account information in association with at least one identifier and password;

obtaining from said wireless device an identifier and password; and

allowing said wireless device to conduct transactions if said identifier and password match one of said at least one stored identifier and password.

Preferably said step of allowing said wireless device to conduct transactions occurs if said unique device identifier matches one of said at least one stored device identifier and said identifier and password match one of said at least one stored identifier and password.

Preferably said method including the step of merging said account information with the transaction information before sending the transaction information to said financial transaction server.

Preferably said transaction is a transaction for goods or services made by a mobile vendor or provider in possession of said wireless device

Accordingly in a second aspect the present invention may be broadly be said to consist in a method of transacting a financial transaction on a financial transaction server using a handheld internet network data enabled wireless device including the steps of:

sending transaction information from said wireless device to said financial transaction server; and

receiving information at said wireless device from said financial transaction server on the successful processing or otherwise of the transaction,

wherein said steps of receiving and sending information are conducted using a internet network data protocol.

Preferably said wireless device is a cellular telephone.

Preferably said wireless device has a unique device identifier and said method including the step of sending said unique device identifier from said wireless device to said financial transaction server.

Preferably said method including the step of sending an identifier and password from said wireless device to said financial transaction server.

Preferably said transaction is a transaction for goods or services made by a mobile vendor or provider in possession of said wireless device

Accordingly in a third aspect the present invention may be broadly be said to consist in a method of transacting a financial transaction with a server using a handheld internet network data enabled wireless device including the steps of:

sending transaction information to said server using said wireless device;

receiving at said server said transaction information from said wireless device;

forwarding transaction information from said server to a financial transaction server for processing;

receiving at said server information on the successful processing or otherwise of the transaction from said transaction server; and

sending from said server information on the successful processing or otherwise of the transaction to said wireless device,

wherein said steps of receiving and sending information to and from said wireless device are conducted using an internet network data protocol.

Preferably said wireless device is a cellular telephone.

Preferably said wireless device has a unique device identifier and said method including the steps of:

said server storing account information in association with at least one device identifier;

said wireless device sending said unique device identifier to said server;

said server receiving said unique device identifier; and

said server allowing said wireless device to conduct transactions if said unique device identifier matches one of said at least one stored device identifier.

Preferably said method including the steps of:

said server storing account information in association with at least one identifier and password;

said server requesting from said wireless device an identifier and password;

said wireless device sending an identifier and password to said server;

said server receiving said sent identifier and password; and

said server allowing said wireless device to conduct transactions if said sent identifier and password match one of said at least one stored identifier and password.

Preferably said step of said server allowing said wireless device to conduct transactions occurs if said unique device identifier matches one of said at least one stored device identifier and said sent identifier and password match one of said at least one stored identifier and password.

Preferably said method including the step of said server merging said account information with the transaction information before sending the transaction information to said financial transaction server.

Preferably said transaction is a transaction for goods or services made by a mobile vendor or provider in possession of said wireless device

Accordingly in a fourth aspect the present invention may be broadly be said to consist in a computer programmed for transacting a financial transaction with a handheld internet network data enabled wireless device, said computer programmed to perform the steps of:

receiving transaction information from said wireless device;

forwarding said transaction information to a financial transaction server for processing;

receiving information from said transaction server on the successful processing or otherwise of the transaction; and

sending information on the successful processing or otherwise of the transaction to said wireless device,

wherein said steps of receiving and sending information to and from said wireless device are conducted using an internet network protocol.

Preferably said wireless device is a cellular telephone.

Preferably said wireless device has a unique device identifier and wherein said computer is additionally programmed to perform the steps of:

storing account information in association with at least one device identifier;

obtaining from said wireless device said unique device identifier; and

allowing said wireless device to conduct transaction if said unique device identifier matches one of said at least one stored device identifier.

Preferably said computer is additionally programmed to perform the steps of:

storing account information in association with at least one identifier and password;

obtaining from said wireless device an identifier and password; and

allowing said wireless device to conduct transaction if said identifier and password match one of said at least one stored identifier and password.

Preferably set step of allowing said wireless device to conduct transactions occurs if said unique device identifier matches one of said at least one stored device identifier and said identifier and password match one of said at least one stored identifier and password.

Preferably said computer is additionally programmed to perform the step of merging said account information with said transaction information before sending the transaction information to said financial transaction server.

Accordingly in a fifth aspect the present invention may be broadly be said to consist in a method of transacting a financial transaction with a handheld internet network data enabled wireless device including the steps of:

receiving transaction information from said wireless device;

processing the transaction information; and

sending information on the successful processing or otherwise of the transaction to said wireless device,

wherein said steps of receiving and sending information to and from said wireless device are conducted using a network data protocol.

Preferably said wireless device is a cellular telephone.

Preferably said handheld internet network data enabled wireless device has a unique device identifier and said method including the steps of:

storing account information in association with at least one device identifier;

obtaining from said wireless device said unique device identifier; and

allowing said wireless device to conduct transactions if said unique identifier matches one of said at least one stored device identifier.

Preferably said method including the steps of:

storing account information in association with at least one identifier and password;

obtaining from said wireless device an identifier and password; and

allowing said wireless device to conduct transactions if said identifier and password match one of said at least one stored identifier and password.

Preferably said step of allowing said wireless device to conduct transactions occurs if said unique device identifier matches one of said at least one stored device identifier and said identifier and password match one of said at least one stored identifier and password.

Preferably said method including the step of merging said account information with the transaction information before processing said transaction information

Preferably said transaction is a transaction for goods or services made by a mobile vendor or provider in possession of said wireless device

Accordingly in a sixth aspect the present invention may be broadly be said to consist in a method of transacting a financial transaction with a server using a handheld internet network data enabled wireless device including the steps of:

sending transaction information to said server using said wireless device;

receiving at said server said transaction information from said wireless device;

processing said transaction information; and

sending information from said server on the successful processing or otherwise of the transaction to said wireless device,

wherein said steps of receiving and sending information to and from said wireless device are conducted using an internet network data protocol.

Preferably said wireless device is a cellular telephone.

Preferably said wireless device has a unique device identifier and said method including the steps of:

said server storing account information in association with at least one device identifier;

said wireless device sending said unique device identifier to said server;

said server receiving said unique device identifier; and

said server allowing said wireless device to conduct transactions if said unique device identifier matches one of said at least one stored device identifier.

Preferably said method including the steps of:

said server storing account information in association with at least one identifier and password;

said server requesting from said wireless device an identifier and password;

said wireless device sending an identifier and password to said server;

said server receiving said sent identifier and password; and

said server allowing said wireless device to conduct transactions if said sent identifier and password match one of said at least one stored identifier and password.

Preferably said step of said server allowing said wireless device to conduct transactions occurs if said unique device identifier matches one of said at least one stored device identifier and said sent identifier and password match one of said at least one stored identifier and password.

Preferably said method including the step of said server merging said account information with the transaction information before processing said transaction information.

Preferably said transaction is a transaction for goods or services made by a mobile vendor or provider in possession of said wireless device

Accordingly in a seventh aspect the present invention may be broadly be said to consist in a computer programmed for transacting a financial transaction with a handheld internet network data enabled wireless device, said computer programmed to perform the steps of:

receiving transaction information from said wireless device;

processing said transaction information,

sending information on the successful processing or otherwise of the transaction to said wireless device,

wherein said steps of receiving and sending information to and from said wireless device are conducted using an internet network protocol.

Preferably said wireless device is a cellular telephone.

Preferably said wireless device has a unique device identifier and wherein said computer is additionally programmed to perform the steps of:

storing account information in association with at least one device identifier;

obtaining from said wireless device said unique device identifier; and

allowing said wireless device to conduct transaction if said unique device identifier matches one of said at least one stored device identifier.

Preferably said computer is additionally programmed to perform the steps of:

storing account information in association with at least one identifier and password;

obtaining from said wireless device an identifier and password; and

allowing said wireless device to conduct transaction if said identifier and password match one of said at least one stored identifier and password.

Preferably set step of allowing said wireless device to conduct transactions occurs if said unique device identifier matches one of said at least one stored device identifier and said identifier and password match one of said at least one stored identifier and password.

Preferably said computer is additionally programmed to perform the step of merging said account information with said transaction information before processing said transaction information.

To those skilled in the art to which the invention relates, many changes in construction and widely differing embodiments and applications of the invention will suggest themselves without departing from the scope of the invention as defined in the appended claims. The disclosures and the descriptions herein are purely illustrative and are not intended to be in any sense limiting.

BRIEF DESCRIPTION OF THE DRAWINGS

One preferred form of the present invention will now be described with reference to the accompanying drawings in which;

Figure 1 is a block diagram of the present invention,

Figure 2 is a block diagram of the process of payment according to the preferred present invention.

Figure 3 is a diagram showing a screen shot of the dollar amount entry interface of the present invention.

Figure 4 is a diagram showing a screen shot of the cents amount entry interface of the present invention.

Figure 5 is a diagram showing a shot of the amount confirmation interface of the present invention

Figure 6 is a diagram showing a shot of the card number enter interface of the present invention

Figure 7 is a diagram showing a shot of the card expiry date interface of the present invention

Figure 8 is a diagram showing a screen shot of the transaction interface of the present invention showing a transaction confirmation screen.

Figure 9 is a diagram showing a screen shot of the transaction interface of the present invention showing a transaction being processed.

Figure 10 is a diagram showing a screen shot of the transaction interface of the present invention showing an accepted transaction.

Figure 11 is a diagram showing a screen shot of the web browser transaction history interface of the present invention.

DETAILED DESCRIPTION OF THE PRESENT INVENTION

Referring to Figure 1 the present invention is operated by a system operator 110 consists of a financial institutions transactions server 103, a web and application server 101, a database 106 accessible by the web application server 101, a system operator interface 102, a WAP gateway 104 and a mobile phone 105. The web and application server 101 is connected over a secure network 140 to the financial institutions transactions server 103. The web and application server 101 is connected to the WAP server 104 by a network 141. In the preferred embodiment of the present invention the financial institutions transactions server 103 and the web and application server 101 are connected by a secure network. In the preferred embodiment of the present invention the WAP server 104 and the web and application server 101 are connected by a secure network. The web and application server 101 may be two or more servers operating together. Merchants 111 and customers 112 are the parties who use the present invention to transfer funds.

The operator interface 102 of the present invention is a computer or terminal directly connected to the web and application server 101. In an alternative embodiment the operator interface 102 may be provided remotely including by a web interface accessible using a browser on a computer. If the operator interface 102 is provided remotely then access is via a secure network.

The WAP gateway 104 allows the merchant's mobile phone 105 to access the web and application server 101 of the present invention. WAP enabled mobile phones have micro browsers installed that allow users of the phone to see WAP pages. The web and applications sever 101 provides an interface via a WAP micro browser to enable to enable a financial transaction to be transacted by a merchant. Merchant 111 refers to a vendor or provider of goods and services.

In order for merchants 111 to use the present invention they register with the system operator 110. As part of the registration process the system operator 110 will enter information using the operator interface 102 that will be stored in the system

database 106. The information entered by the system operator 110 and provided by the merchants 111 include contact information and financial account information.

For each merchant 111 who registers the system will generate an account holder identifier and password for the. The system operator 110 will provide this information to the merchant 111. In an alternative embodiment the registration process would be automated.

In association with the account identifier the system stores unique device identifiers of mobile telephones the account holder wishes to use. The device identifiers are entered by the system operator 110. In addition the system stores in association with the account identifier user access identifiers and passwords. The user access identifiers are created by the system operator 110 and the ser access identifiers and an associated password are provided to the account holder. In the preferred embodiment the user access identifiers and passwords would be associated only with those phones allowed by the account holder. So that access identifiers would only work n association with particular device identifiers.

Having registered to use the system the merchant 111 when they wish to transact a transaction connect their mobile phone 105 to the web and application server 101 of the present invention via a WAP gateway 104. The web and application server 101 of the present invention is programmed to authenticate the merchant 111 and mobile phone 105. In the preferred embodiment the merchant 111 will authenticate themselves by providing their user access identifier and password provided by the system operator 110. In addition to requesting the user access identifiers and password the web and application server 101 is programmed to obtain the unique device identifier of the mobile telephone 105 used by the merchant 111 to connect to the web and application server 101. In an alternative embodiment the web and application server 101 would only use one of the unique device identifier or system identifier and password to authenticate the user.

The web and application server 101 is programmed to generate an interface on the browser of the mobile phone 105 to request the user access identifiers and password from the merchant 111.

Having authenticated the merchant 111 the web and application server 101 of the present invention is then programmed to generate and send to the mobile telephone 105 an interface screen shown in Figure 3 to enable the merchant 111 to enter the transaction details. In an alternative embodiment the customer 112 would enter some or all of the transaction details. User is used to refer to the party who enters the transaction details and this may be the merchant or the customer.

The web and application server 101 is programmed to prompt the user by generating a WAP page shown in Figure 3 on the authenticated mobile telephone 105. The WAP page prompts the user to enter the amount by printing on the screen "Enter Amount (dollars):" 301. Referring to Figure 3 the user enters the dollar amount of the transaction using the key pad of the mobile telephone 105. The dollar amount shown in Figure 3 is $99 302. Having entered the dollar amount the user then selects "Ok" 303 and the mobile telephone 105 sends the dollar amount to the web and application server 101.

The web and application server 101 is programmed to receive the dollar amount and store the dollar amount in relation to the transaction. The web and application server allocates a transaction identifier to the transaction and all information is stored in relation to the transaction identifier. The web and application server 101 of the present invention is then programmed to generate and send to the mobile telephone 105 an interface screen shown in Figure 4 to enable the user to enter the amount of cents of the transaction. The web and application server 101 is programmed to prompt the user by generating a WAP page shown in Figure 4 on the authenticated mobile telephone 105. The WAP page prompts the user to enter the amount of cents by printing on the screen "Enter Amount (Cents):" 401. Referring to Figure 4 the user enters the amount of cents of the transaction using the key pad of the mobile telephone 105. The amount of cents shown in Figure 4 is 95 cents 402. Having entered the amount of cents the user then selects "Ok" 403 and the cellular telephone 105 sends the dollar amount to the web and application server 101.

The web and application server 101 is programmed to receive the dollar amount and store the amount of cents in relation to the transaction. In an alternative

embodiment the web and application server 101 would generate and send a WAP page to the mobile telephone requesting both the dollar and cents amount of the transaction. The web and application server 101 of the present invention is then programmed to generate and send to the mobile telephone 105 an interface screen shown in Figure 5 to enable the user to confirm the amount stored is correct. The WAP page prompts the user by printing on the screen "The amount entered was $xx.xx Is this correct?" 501. The amount of to be confirmed shown in Figure 5 is $99.95 501. The user then selects the "Yes" 502 or "No" 503 and the mobile telephone 105 sends the users choice to the web and application server 101.

If the user selects "No" 503 then the web and application 101 server clears the transaction and begins the transaction again by prompting the user for the dollar amount. The web and application server 101 does this by generating and sending to the mobile telephone 105 the screen shown in Figure 3.

If the user selects "Yes" 502 on the amount confirmation screen then the web and application server 101 is programmed to prompt the user to enter a card number. The web and application server 101 of the present invention is programmed to generate and send to the mobile telephone 105 an interface screen shown in Figure 6 to enable the user to enter the card number. The WAP page prompts the user to enter the card number by printing on the screen "Enter Card Number:" 601. Referring to Figure 6 the user enters the card number using the key pad of the mobile telephone 105. The card number shown in Figure 6 is 1234.1234.1234.1234 402. Having entered the card number the user then selects the "ok" 603 and the mobile telephone 105 sends the dollar amount to the web and application server 101.

The web and application server 101 is programmed to receive the card number and store the card number in relation to the transaction. The web and application server 101 of the present invention is then programmed to generate and send to the mobile telephone 105 an interface screen shown in Figure 7 to enable the user to enter the card expiry date. The web and application server 101 is programmed to prompt the user by generating a WAP page shown in Figure 7 on the authenticated mobile telephone. The WAP page prompts the user to enter the card expiry date by printing on the screen

"Enter Expiry Date [MM/YY]:" 701. Referring to Figure 7 the user enters the expiry date using the key pad of the mobile telephone. The expiry date shown in Figure 7 is 05/04 702. Having entered the card expiry date the user then selects "Ok" 603 and the cellular telephone 105 sends the expiry date to the web and application server 101.

The web and application server 101 is programmed to receive the expiry date and to store the expiry date in relation to the transaction. The web and application server 101 of the present invention is then programmed to generate and send to the mobile telephone 105 an interface to enable the user to confirm the card details are correct. This is similar to the interface for confirming that the amount entered is correct shown in Figure 5.

If the user does not confirm that the card details are correct then the web and application server 101 is programmed to generate and send interface screens to the cellular telephone 105 to enable the user to re-enter the card details. If the user confirms the card and expiry date are correct the web and application server 101 is programmed to proceed with the transaction.

The web and application server 101 is programmed to prompt the user as to whether or not they wish to proceed with the transaction. The web and application server 101 of the present invention is programmed to generate and send to the mobile telephone 105 an interface screen shown in Figure 8 to enable the user to confirm the transaction. The web and application server 101 is programmed to prompt the user to confirm the transaction by generating a WAP page shown in Figure 8 on the authenticated mobile telephone 105. The WAP page prompts the user by printing on the screen "Process payment for $xx.xx?" 801. The amount of the transaction to be confirmed shown in Figure 8 is $99.95 801. The user then selects "Yes" 802 or No" 803 on the screen and the cellular telephone 105 sends the users choice to the web and application server 101.

If the user selects "No" 803 then the web and application server 101 clears the transaction and begins the transaction again by prompting the user for the dollar amount. The web and application server 101 does this by generating and sending to the mobile telephone the screen shown in Figure 3.

If the user selects "Yes" 802 on the confirmation screen then the web and application server 101 is programmed to process the transaction. The web and application server 101 of the present invention is then programmed to generate and send to the authenticated mobile telephone 105 a screen shown in Figure 9 informing the user that the web and application server 101 is processing the payment.

The web and application server 101 processes the payment by sending details of the transaction to a financial transaction server 103 typically a bank server. In the preferred embodiment the web and application server 101 adds information on the merchant to the transaction information. The web and application server is programmed to add the information from the information added by the system operator 110 in relation to the merchant 111.

The web and application server 101 sends the transaction data to the financial institutions transactions server 103 over the secure network 140. Such secure networks are known.

The financial institutions transactions server 103 will process the transaction in the normal manner and will send a response to the web and application server 101 of the present invention. The response will be transaction accepted or transaction rejected. If the financial transaction server 103 sends an accepted response the web application server 101 of the present invention is programmed to confirm to the user that the transaction was successful.

The web and application server 101 of the present invention 101 will confirm that the transaction was successful by generating and sending a WAP page to the mobile phone 105 of the merchant 111 showing information that the transaction was successful. Referring to Figure 10 the web and application server 101 will send a screen showing a transaction reference and the amount of the transaction. In an alternative embodiment the merchant 111 would send the transaction receipt using text messaging or email to their customer 112. If the transaction was declined by the financial transaction server 103 the web and application server 101 of the present invention is programmed to send a WAP page asking whether another card be tried. In the preferred embodiment if the merchant 111 selects "Yes" on the WAP page then the

web and application server 101 is programmed to regenerate the interface asking for the transaction information and the process begins again.

A merchant 111 can also credit a customer 112 using the interface of the present invention by entering a negative amount or in a alternative embodiment using interface screens generating by the web and application server 101 for crediting a customers card.

Referring to Figure 2 the flow process of the present invention will be described the merchant 111 delivers 200 goods and/or services to the customer or consumer 112. The merchant 111 makes the transaction option of the present invention available 202 to the customer 112. If the customer 112 elects 104 to pay by the transaction method of the present invention the merchant 111 connects 106 their internet enabled mobile telephone 105 to the web and application server 101. The web and application server 101 authenticates 207 the merchant 111 by obtaining the mobile telephone 105 device identifier and user access identifier and password. The merchant 111 then selects 208 the appropriate payment method and enters other transaction information. The merchant 111 or the consumer's 112 enters the consumer 112 credit number and expiry date and confirms 210 the transaction. The web and application server 111 builds 212 the transaction and sends it to a bank or financial institution server 103for authorisation and processing. The financial institution server 103 processes 214 the transaction and sends a response to the web and application server 101. If the transaction is accepted 216 the web and application server 101 confirms 220 the transaction has been successful to the merchant 111. The web and application server confirms 220 the transaction has been successful by generating and sending a WAP page to the mobile telephone 105 of the merchant 111. If the financial institutions transaction server 103 declines the transaction the web and application server 101 will ask 218 the merchant 111 whether or not they wish to try another method. If the merchant 111 wishes to try another method the merchant 111 enters the flow by entering card details at 210. If the merchant 111 or consumer 112 does not wish to try another payment method the web and application server 101 of the present invention confirms 222 that the transaction has been unsuccessful.

In the preferred embodiment the merchant has access to the transactions using a web browser of a computer. The web browser of a computer allows access to the account control system of the present invention. The account control system is provided by the web and applications server 101. The account control system allows the merchant to manage their own use of the system.

The account control system allows access to the transactions and allows the merchant 111 to alter their own configuration including adding or removing devices that can connect to the system. The account control system also allows the account holder to add or remove user access identifiers and to changes passwords. Figure 11 shows a list of transactions 1101 for a merchant 111.

CLAIMS:

1. A method of transacting a financial transaction with a handheld internet network data enabled wireless device including the steps of:

receiving transaction information from said wireless device;

forwarding said transaction information to a financial transaction server for processing;

receiving information from said transaction server on the successful processing or otherwise of the transaction; and

sending information on the successful processing or otherwise of the transaction to said wireless device,

wherein said steps of receiving and sending information to and from said wireless device are conducted using an internet network data protocol.

2. A method of transacting a financial transaction with a handheld internet network data enabled wireless device as claimed in claim 1 wherein said wireless device is a cellular telephone.

3. A method of transacting a financial transaction with a handheld internet network data enabled wireless device as claimed in claim 1 or claim 2 wherein said handheld internet network data enabled wireless device has a unique device identifier, including the steps of:

storing account information in association with at least one device identifier;

obtaining from said wireless device said unique device identifier; and

allowing said wireless device to conduct transactions if said unique identifier matches one of said at least one stored device identifier.

4. A method of transacting a financial transaction with a handheld internet network data enabled wireless device as claimed in claim 1 or claim 2 including the steps of:

storing account information in association with at least one identifier and password;

obtaining from said wireless device an identifier and password; and

allowing said wireless device to conduct transactions if said identifier and password match one of said at least one stored identifier and password.

5. A method of transacting a financial transaction with a handheld internet network data enabled wireless device as claimed in claim 1 or claim 2 wherein said wireless device has a unique device identifier including the steps of:

storing account information in association with at least one device identifier,

storing at least one identifier and password in association with at least one of said at least one stored device identifier;

obtaining from said wireless device said unique device identifier, and an identifier and password; and

allowing said wireless device to conduct transactions if said unique device identifier matches one of said at least one stored device identifier and said identifier and password match one of said at least one stored identifier and password.

6. A method of transacting a financial transaction with a handheld internet network data enabled wireless device as claimed in any one of claims 3 to 5 including the step of merging said account information with the transaction information before sending the transaction information to said financial transaction server.

7. A method of transacting a financial transaction on a financial transaction server using a handheld internet network data enabled wireless device including the steps of:

sending transaction information from said wireless device to said financial transaction server; and

receiving information at said wireless device from said financial transaction server on the successful processing or otherwise of the transaction,

wherein said steps of receiving and sending information are conducted using a internet network data protocol.

8. A method of transacting a financial transaction on a financial transaction server using a handheld internet network data enabled wireless device as claimed in claim 7 wherein said wireless device is a cellular telephone.

9. A method of transacting a financial transaction on a financial transaction server using a handheld internet network data enabled wireless device as claimed in claim 7 or claim 8 wherein said wireless device has a unique device identifier, said method including the step of sending said unique device identifier from said wireless device to said financial transaction server.

10. A method of transacting a financial transaction on a financial transaction server using a handheld internet network data enabled wireless device as claimed in claim 7 or claim 8 including the step of sending an identifier and password from said wireless device to said financial transaction server.

11. A method of transacting a financial transaction on a financial transaction server using a handheld internet network data enabled wireless device as claimed in claim 7 or claim 8 wherein said wireless device has a unique device identifier, including the steps of:

sending said unique device identifier from said wireless device to said financial transaction server; and

sending an identifier and password from said wireless device to said financial transaction server.

12. A method of transacting a financial transaction with a server using a handheld internet network data enabled wireless device including the steps of:

sending transaction information to said server using said wireless device;

receiving at said server said transaction information from said wireless device;

forwarding transaction information from said server to a financial transaction server for processing;

receiving at said server information on the successful processing or otherwise of the transaction from said transaction server; and

sending from said server information on the successful processing or otherwise of the transaction to said wireless device,

wherein said steps of receiving and sending information to and from said wireless device are conducted using an internet network data protocol.

13. A method of transacting a financial transaction with a server using a handheld internet network data enabled wireless device as claimed in claim 12 wherein said wireless device is a cellular telephone.

14. A method of transacting a financial transaction with a server using a handheld internet network data enabled wireless device as claimed in claim 12 or claim 13 wherein said wireless device has a unique device identifier, including the steps of:

said server storing account information in association with at least one device identifier;

said wireless device sending said unique device identifier to said server;

said server receiving said unique device identifier; and

said server allowing said wireless device to conduct transactions if said unique device identifier matches one of said at least one stored device identifier.

15. A method of transacting a financial transaction with a server using a handheld internet network data enabled wireless device as claimed in claim 12 or claim 13 including the steps of:

said server storing account information in association with at least one identifier and password;

said server requesting from said wireless device an identifier and password;

said wireless device sending an identifier and password to said server;

said server receiving said sent identifier and password; and

said server allowing said wireless device to conduct transactions if said sent identifier and password match one of said at least one stored identifier and password.

16. A method of transacting a financial transaction with a server using a handheld internet network data enabled wireless device as claimed in claim 12 or claim 13 wherein said wireless device has a unique device identifier including the steps of:

said server storing account information in association with at least one device identifier;

said server storing at least one identifier and password in association with at least one of said at least one stored device identifier

said wireless device sending said unique device identifier to said server;

said server receiving said unique device identifier; and

said server requesting from said wireless device an identifier and password;

said wireless device sending an identifier and password to said server;

said server receiving said sent identifier and password; and

said server allowing said wireless device to conduct transactions if said unique device identifier matches one of said at least one stored device identifier and said sent identifier and password match one of said at least one stored identifier and password.

17. A method of transacting a financial transaction with a server using a handheld internet network data enabled wireless device as claimed in any one of claims 14 to 16 including the step of said server merging said account information with the transaction information before sending the transaction information to said financial transaction server.

18. A computer programmed for transacting a financial transaction with a handheld internet network data enabled wireless device, said computer programmed to perform the steps of:

receiving transaction information from said wireless device;

forwarding said transaction information to a financial transaction server for processing;

receiving information from said transaction server on the successful processing or otherwise of the transaction; and

sending information on the successful processing or otherwise of the transaction to said wireless device,

wherein said steps of receiving and sending information to and from said wireless device are conducted using an internet network protocol.

19. A computer programmed for transacting a financial transaction with a handheld internet network data enabled wireless device as claimed in claim 18 wherein said wireless device is a cellular telephone.

20. A computer programmed for transacting a financial transaction with a handheld internet network data enabled wireless device as claimed in claims 18 or claim 19 wherein said wireless device has a unique device identifier wherein said computer is additionally programmed to perform the steps of:

storing account information in association with at least one device identifier;

obtaining from said wireless device said unique device identifier; and

allowing said wireless device to conduct transaction if said unique device identifier matches one of said at least one stored device identifier.

21. A computer programmed for transacting a financial transaction with a handheld internet network data enabled wireless device as claimed in claims 18 or claim 19 wherein said computer is additionally programmed to perform the steps of:

storing account information in association with at least one identifier and password;

obtaining from said wireless device an identifier and password; and

allowing said wireless device to conduct transaction if said identifier and password match one of said at least one stored identifier and password.

22. A computer programmed for transacting a financial transaction with a handheld internet network data enabled wireless device as claimed in any one of claims 18 or claim 19 wherein said wireless device has a unique device identifier and wherein said computer is additionally programmed to perform the steps of:

storing account information in association with at least one device identifier;

storing at least one identifier and password in association with at least one of said at least one stored device identifier;

obtaining from said wireless device said unique device identifier;

obtaining from said wireless device an identifier and password; and

allowing said wireless device to conduct transactions if said unique device identifier matches one of said at least one stored device identifier and said identifier and password match one of said at least one stored identifier and password.

23. A computer programmed for transacting a financial transaction with a handheld internet network data enabled wireless device claimed in any one of claims 20 to 22 wherein said computer is additionally programmed to perform the step of merging said account information with said transaction information before sending the transaction information to said financial transaction server.

24. A method of transacting a financial transaction with a handheld internet network data enabled wireless device including the steps of:

receiving transaction information from said wireless device;

processing the transaction information; and

sending information on the successful processing or otherwise of the transaction to said wireless device,

wherein said steps of receiving and sending information to and from said wireless device are conducted using a network data protocol.

25. A method of transacting a financial transaction with a handheld internet network data enabled wireless device as claimed in claim 24 wherein said wireless device is a cellular telephone.

26. A method of transacting a financial transaction with a handheld internet network data enabled wireless device as claimed in claim 24 or claim 25 wherein said wireless device has a unique device identifier including the steps of:

storing account information in association with at least one device identifier;

obtaining from said wireless device said unique device identifier; and

allowing said wireless device to conduct transactions if said unique identifier matches one of said at least one stored device identifier.

27. A method of transacting a financial transaction with a handheld internet network data enabled wireless device as claimed in claim 24 or claim 25 including the steps of:

storing account information in association with at least one identifier and password;

obtaining from said wireless device an identifier and password; and

allowing said wireless device to conduct transactions if said identifier and password match one of said at least one stored identifier and password.

28. A method of transacting a financial transaction with a handheld internet network data enabled wireless device as claimed in claim 24 or claim 25 wherein said wireless device has a unique device identifier including the steps of:

storing account information in association with at least one device identifier;

storing at least one identifier and password in association at least one of said at least one stored device identifier;

obtaining from said wireless device said unique device identifier;

obtaining from said wireless device an identifier and a password; and

allowing said wireless device to conduct transactions if said unique device identifier matches one of said at least one stored identifier and said identifier and password match one of said at least one stored identifier and password.

29. A method of transacting a financial transaction with a handheld internet network data enabled wireless device as claimed in any one of claims 26 to 28 including the step of merging said account information with said transaction information before processing said transaction information

30. A method of transacting a financial transaction with a server using a handheld internet network data enabled wireless device including the steps of:

sending transaction information to said server using said wireless device;

receiving at said server said transaction information from said wireless device;

processing said transaction information; and

sending information from said server on the successful processing or otherwise of the transaction to said wireless device,

wherein said steps of receiving and sending information to and from said wireless device are conducted using an internet network data protocol.

31. A method of transacting a financial transaction with a server using a handheld internet network data enabled wireless device as claimed in claim 30 wherein said wireless device is a cellular telephone.

32. A method of transacting a financial transaction with a server using a handheld internet network data enabled wireless device as claimed in claim 30 or claim 31 wherein said wireless device has a unique device identifier including the steps of:

said server storing account information in association with at least one device identifier;

said wireless device sending said unique device identifier to said server;

said server receiving said unique device identifier; and

said server allowing said wireless device to conduct transactions if said unique device identifier matches one of said at least one stored device identifier.

33. A method of transacting a financial transaction with a server using a handheld internet network data enabled wireless device as claimed in claim 30 or claim 31including the steps of:

said server storing account information in association with at least one identifier and password;

said server requesting from said wireless device an identifier and password;

said wireless device sending an identifier and password to said server;

said server receiving said sent identifier and password; and

said server allowing said wireless device to conduct transactions if said sent identifier and password match one of said at least one stored identifier and password.

34. A method of transacting a financial transaction with a server using a handheld internet network data enabled wireless device as claimed in claim 30 or claim 31 wherein said wireless device has a unique device identifier including the steps of:

said server storing account information in association with at least one device identifier;

said server storing at least one identifier and password in association with at least one of said at least one device identifier;

said wireless device sending said unique device identifier to said server;

said server receiving said unique device identifier; and

said server requesting from said wireless device an identifier and password;

said wireless device sending an identifier and password to said server;

said server receiving said sent identifier and password; and

said server allowing said wireless device to conduct transactions if said unique device identifier matches one of said at least one stored device identifier and said sent identifier and password match one of said at least one stored identifier and password.

35. A method of transacting a financial transaction with a server using a handheld network data enabled wireless device as claimed in any one of claims 32 to 34 including the step of said server merging said account information with said transaction information before processing said transaction information.

36. A computer programmed for transacting a financial transaction with a handheld internet network data enabled wireless device, said computer programmed to perform the steps of:

receiving transaction information from said wireless device;

processing said transaction information,

sending information on the successful processing or otherwise of the transaction to said wireless device,

wherein said steps of receiving and sending information to and from said wireless device are conducted using an internet network protocol.

37. A computer programmed for transacting a financial transaction with a handheld internet network data enabled wireless device as claimed in claim 36 wherein said wireless device is a cellular telephone.

38. A computer programmed for transacting a financial transaction with a handheld internet network data enabled wireless device as claimed in claim 36 or claim 37 wherein said wireless device has a unique device identifier and wherein said computer is additionally programmed to perform the steps of:

storing account information in association with at least one device identifier;

obtaining from said wireless device said unique device identifier; and

allowing said wireless device to conduct transactions if said unique device identifier matches one of said at least one stored device identifier.

39. A computer programmed for transacting a financial transaction with a handheld internet network data enabled wireless device as claimed in claim 36 or claim 37 wherein said computer is additionally programmed to perform the steps of:

storing account information in association with at least one identifier and password;

obtaining from said wireless device an identifier and password; and

allowing said wireless device to conduct transactions if said identifier and password match one of said at least one stored identifier and password.

40. A computer programmed for transacting a financial transaction with a handheld internet network data enabled wireless device as claimed in claim 36 or claim 37 wherein said wireless device has a unique device identifier and wherein said computer is additionally programmed to perform the steps of:

storing account information in association with at least one device identifier;

storing at least one identifier and password in association with at least one of said at least one device identifier;

obtaining from said wireless device said unique device identifier;

obtaining from said wireless device an identifier and password; and

allowing said wireless device to conduct transactions if said unique device identifier matches one of said at least one stored device identifier and said identifier and password match one of said at least one stored identifier and password.

41. A computer programmed for transacting a financial transaction with a handheld network data enabled wireless device claimed in any one of claims 38 to 40 wherein said computer is additionally programmed to perform the step of merging said account information with said transaction information before processing said transaction information.

42. A method of transacting a financial transaction with a handheld internet enabled wireless device according to any one of claims 1 to 17 and 24 to 35 wherein said

transaction is a transaction for goods or services made by a mobile vendor or provider in possession of said wireless device.

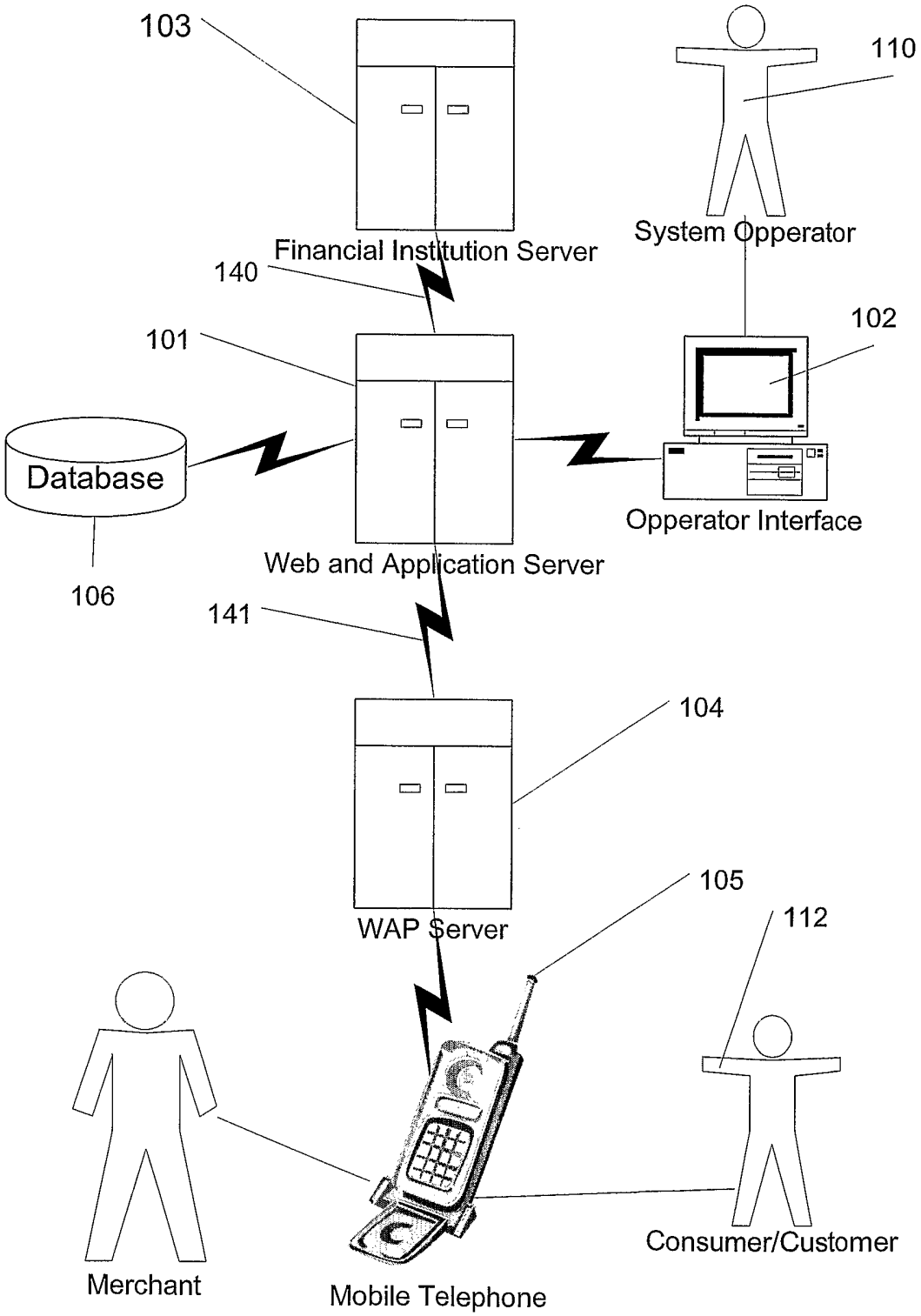

103
110
Financial Institution Server
System Opperator
140
101
102
Database
Opperator Interface
Web and Application Server
106
141
104
WAP Server
105
112
Merchant
Mobile Telephone
Consumer/Customer

Figure 1

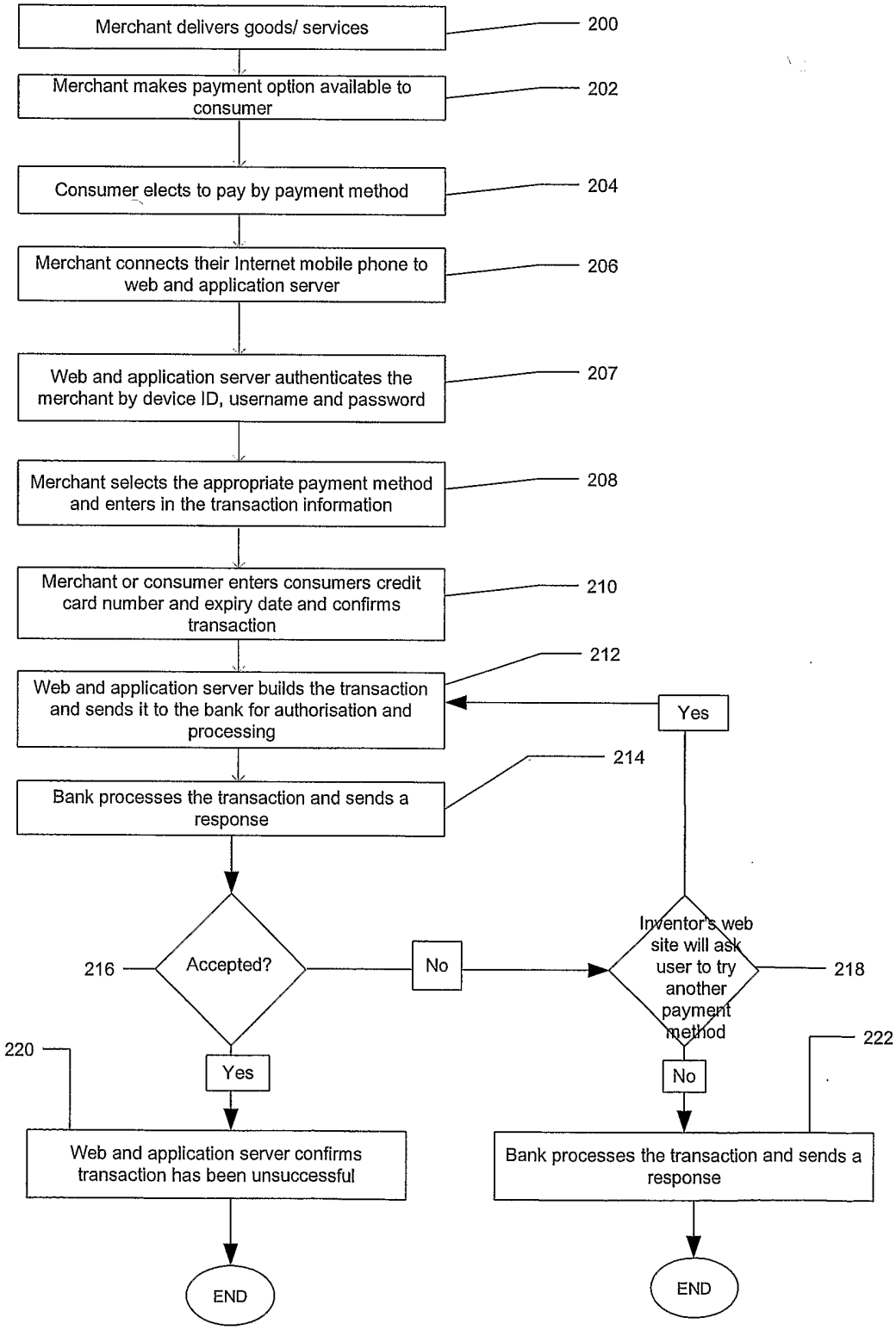

Merchant delivers goods/ services
200
Merchant makes payment option available to consumer
202
Consumer elects to pay by payment method
204
Merchant connects their Internet mobile phone to web and application server
206
Web and application server authenticates the merchant by device ID, username and password
207
Merchant selects the appropriate payment method and enters in the transaction information
208
Merchant or consumer enters consumers credit card number and expiry date and confirms transaction
210
Web and application server builds the transaction and sends it to the bank for authorisation and processing
212
Yes
Bank processes the transaction and sends a response
214
Accepted?
216
No
Inventor's web site will ask user to try another payment method
218
Yes
No
220
222
Web and application server confirms transaction has been unsuccessful
Bank processes the transaction and sends a response
END
END

FIGURE 2

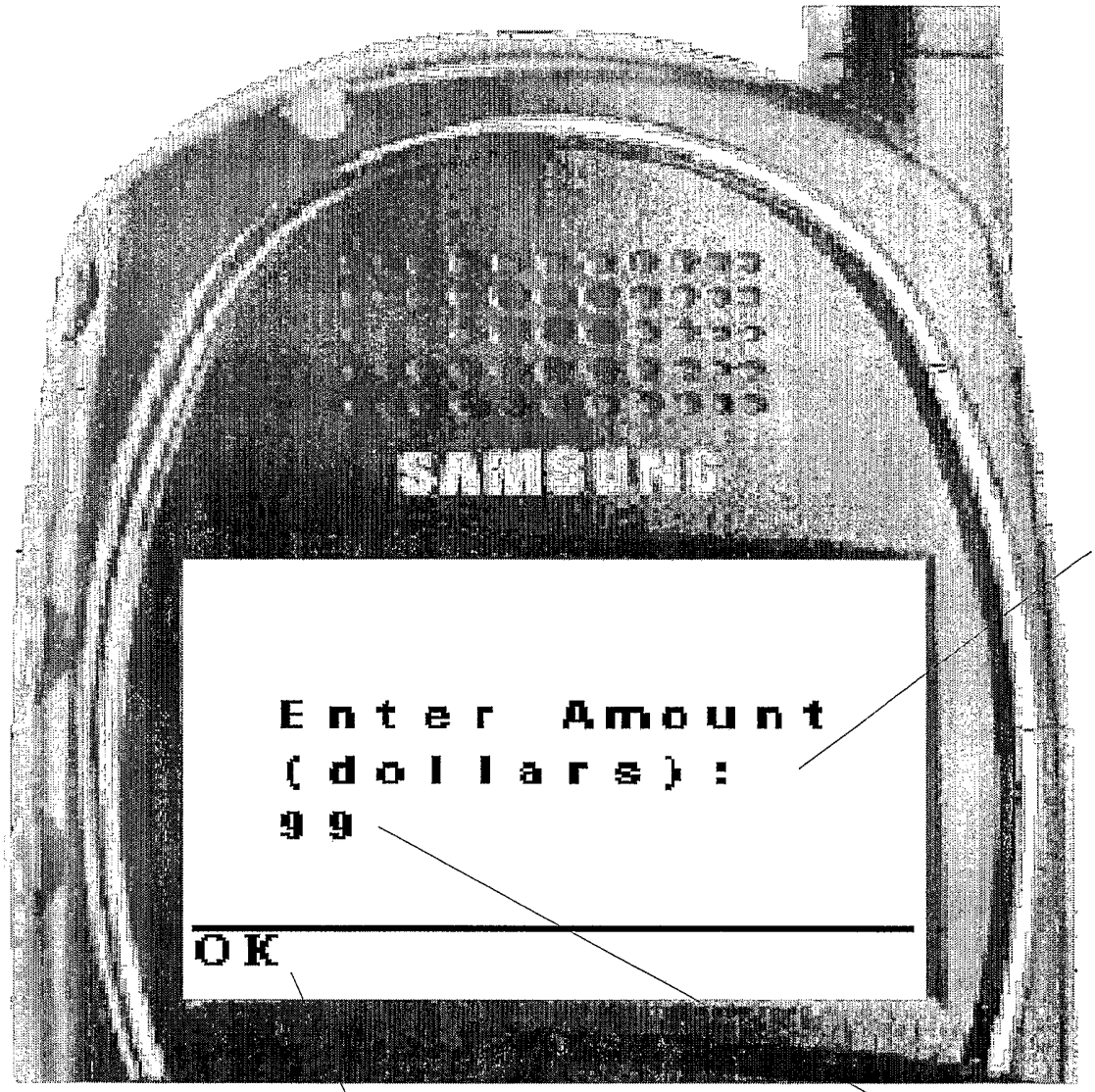
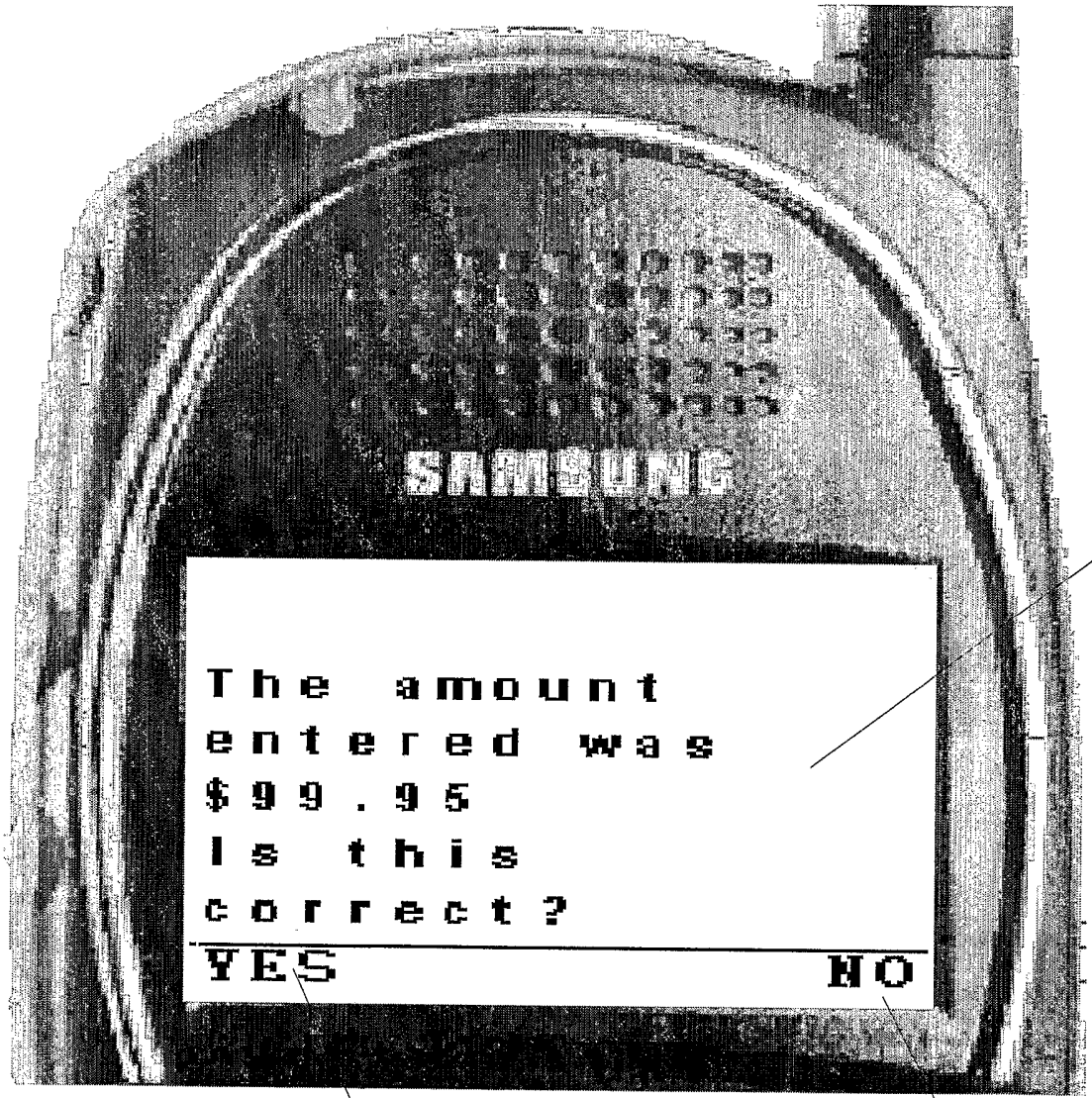


Figure 3

Figure 4


SAMSUNG
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entered was
$99.95
Is this
correct?
YES
NO
501
503
502

Figure 5

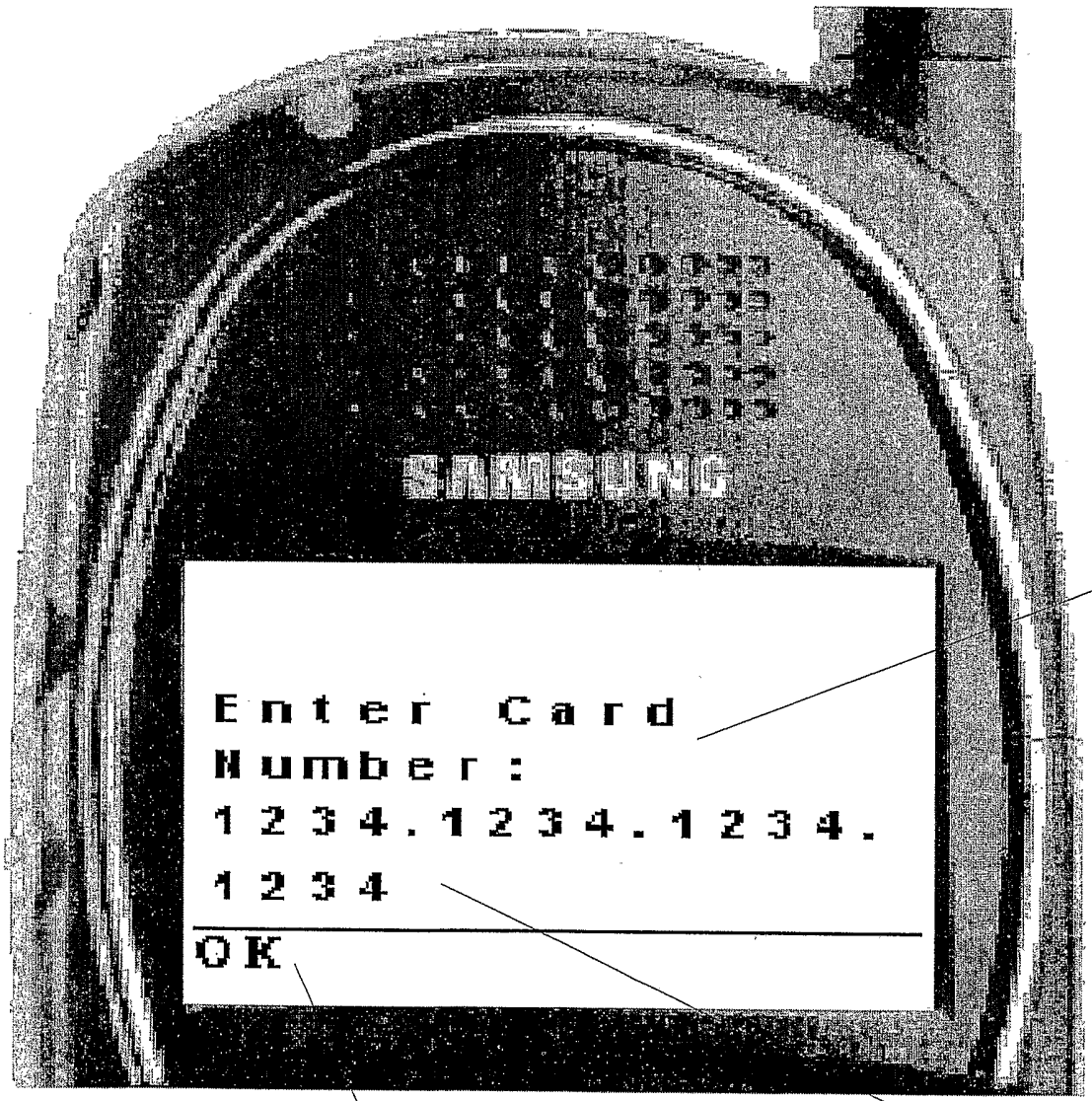

Figure 6

Figure 7

Figure 8

Figure 9

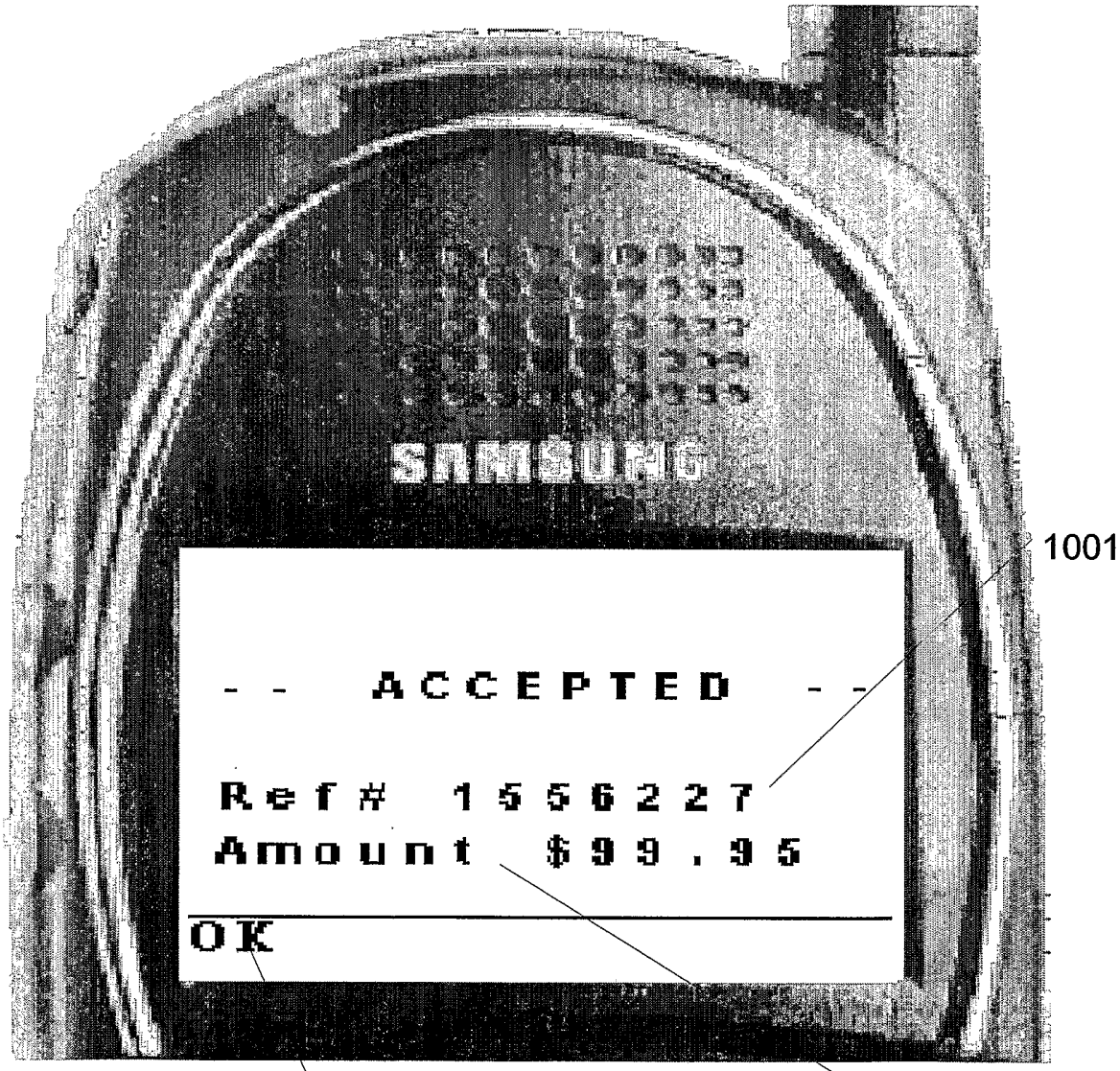

Figure 10

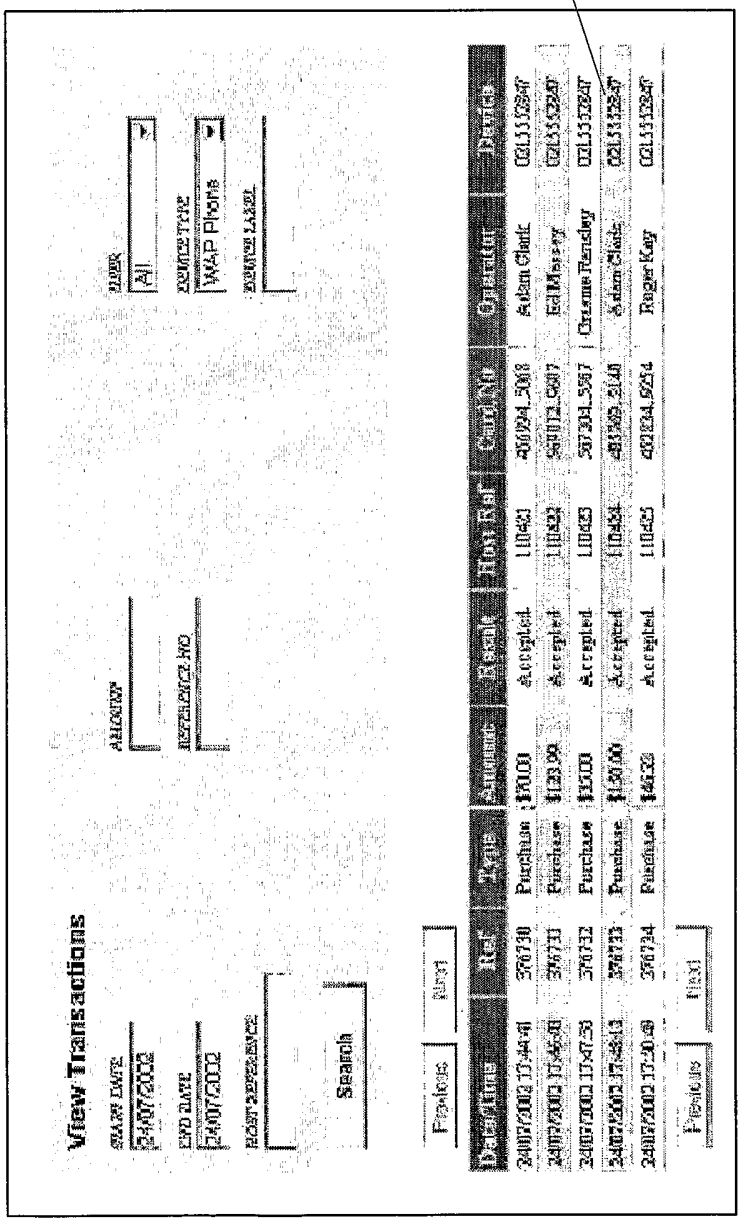
View Transactions
START DATE
24/07/2002
END DATE
24/07/2002
MERCHANT REFERENCE
Search
Previous
Next
1101

Figure 11

INTERNATIONAL SEARCH REPORT

International application No.
PCT/NZ02/00264

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. [7]: H04L 29/06, 12/28; H04Q 7/20; G06F 17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
WPAT, USPTO, Esp@cenet: transact, payment, internet, web, network, server, wireless, mobile, hand-held, radio, protocol, card, phone and similar terms

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	US 2002/0143634 A1 (KUMAR et al), 3 October 2002 Whole document	1 - 42
P, X	US 2002/0077993 A1 (IMMONEN et al), 20 June 2002 Whole document	1 - 42
P, X	WO 02/46995 A1 (KIM, Min-Suh), 13 June 2002 Whole document	1 - 42
P, X	US 2002/0046185 A1 (VILLART et al), 18 April 2002 Whole document	1 - 42

[X] Further documents are listed in the continuation of Box C [X] See patent family annex

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
25 February 2003	06 MAR 2003
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized officer **MANISH RAJ** Telephone No : (02) 6283 2175

INTERNATIONAL SEARCH REPORT

International application No.
PCT/NZ02/00264

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	WO O2/21416 A1 (EURONET SERVICES, INC.), 14 March 2002 Whole document	1 - 42
P, X	WO 02/11477 A1 (WONG, Kiang, Kiong), 7 February 2002 Whole document	1 - 42
X	WO 01/84779 A2 (SOFTTRACKS ENTERPRISES LTD.), 8 November 2001 Whole document	1 - 42
X	WO 01/63375 A2 (ADAMTECH LTD.), 30 August 2001 Whole document	1 - 42
X	WO 01/59732 A2 (SHORE, Jon), 16 August 2001 Whole document	1 - 42
X	WO 00/67448 A1 (TELEFONAKTIEBOLAGET LM ERICSSON), 9 November 2000 Whole document	1 - 42
X	WO 99/33034 A1 (GLOBAL MOBILITY SYSTEMS, INC.), 1 July 1999 Whole document	1 - 42
X	WO 97/18653 A1 (TRANSACTION TECHNOLOGY, INC.), 22 May 1997 Whole document	1 - 42

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/NZ02/00264

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
US	2002143634	NONE					
US	2002077993	NONE					
WO	200246995	AU	200222725	KR	2001088518		
US	2002046185	NONE					
WO	200221416	AU	200145430				
WO	200211477	AU	200064878				
WO	200184779	AU	200150217				
WO	200163375	AU	200132189	EP	1221081	US	2002181710
WO	200159732	AU	200138105	EP	1257983		
WO	200067448	AU	200044432	NO	992071		
WO	9933034	AU	20870/99	BR	9814407	CA	2316389
		EP	1046144				
WO	9718653	AU	10745/97	BR	9611515	CN	1202287
		EP	872075	US	5796832	ZA	9609479
		US	6442532				

END OF ANNEX