(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
12 December 2002 (12.12.2002)

PCT

(10) International Publication Number
WO 02/099708 A1

(51) International Patent Classification[7]: G06F 17/60

(21) International Application Number: PCT/AU02/00706

(22) International Filing Date: 3 June 2002 (03.06.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
PR 5455 4 June 2001 (04.06.2001) AU
PS 0832 28 February 2002 (28.02.2002) AU

(71) Applicant *(for all designated States except US)*: **EZYSHOPPER@HOME PTY LIMITED** [AU/AU]; level 1, 742 Military Road, Mosman, NSW 2088 (AU).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **BLAXLAND, Stephen, Terrence** [AU/AU]; level 1, 742 Military Road, Mosman, NSW 2088 (AU). **ROBERTSON, Ian, Bradley** [AU/AU]; 9 Cross Street, Mosman, NSW 2088 (AU). **HORTON, Michael, James** [AU/AU]; 7 Beauty Point Road, Mosman, NSW 2088 (AU).

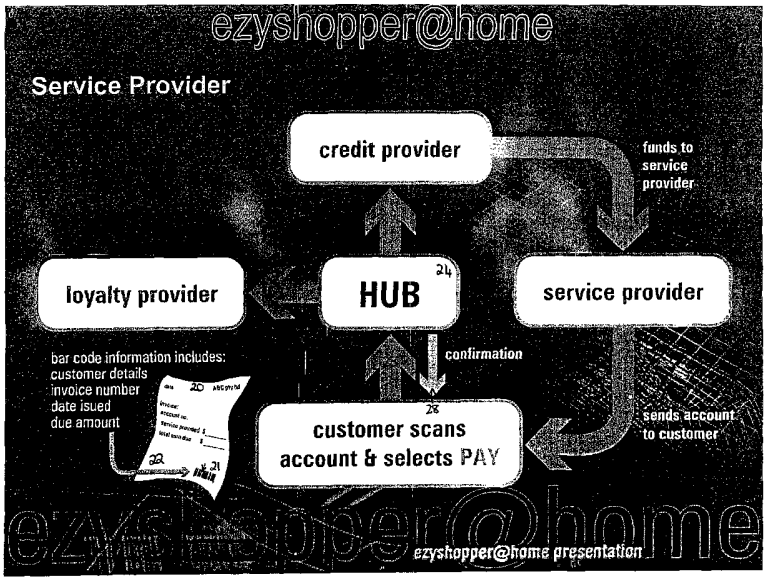
(74) Agent: **HORTON, Michael, J.**; RBHM Lawyers, Level 2, 110 Pacific Hwy, North Sydney, NSW 2060 (AU).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: RETAIL HOME ORDERING SYSTEM AND BILL PAYMENT SYSTEM



(57) Abstract: A retail home ordering system and bill payment system comprising a remote ordering/payment apparatus, a scanning device to scan indicia on an object, a memory to record the data on the object scanned and to produce a list of objects scanned, selections means to choose from the list of objects a desired list of objects, transmission means to transmit the said desired list of objects to an order centre to obtain the objects in the said desired list and receiving means to receive data from the order centre and a control means located at the order centre to receive transmitted desired list and to transmit data to the remote ordering/payment apparatus.

WO 02/099708 A1

Published:
— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Retail Home Ordering System and Bill Payment System

Aspects of the present invention relate to a retail home ordering system and in particular to a retail home ordering system wherein the customer can scan products in their own house and order the required products without leaving the house and to a method of remote ordering of retail products. Other optional aspects of the invention also have applications in fields such as bill payment, the keeping of inventories, tracking finances, and so forth.

The traditional method of purchasing retail products is to visit the store, pay for the products at the store, and then to carry the products home. If the person is infirm or because of time constraints, the bought products can be home delivered. However it is still necessary to visit the store. Further, shopping with small children can be a problem.

To be more time efficient, people have used e-commerce to order and pay over the internet for products, which are then delivered to the householder. One of the problems with this system is that you must have a computer connected to the internet; some people do not have a computer or are computer illiterate. Again in many e-commerce operations the range of goods to be purchased can be limited or the process of identifying the products is time consuming and can "turn off" the customer.

It is an object of the present invention to overcome or ameliorate at least one of the disadvantages of the prior art, or to provide a useful alternative.

A first aspect of the present invention provides a retail home ordering system comprising:

a remote ordering apparatus comprising:

a scanning device to scan indicia on an object;

a memory to record the data on the object scanned and to produce a list of the objects scanned;

selection means to choose from the list of objects a desired list of objects;

transmission means to transmit the said desired list of objects to an order centre to obtain the objects in said desired list; and

receiving means to receive data from the order centre; and

a control means located at the order centre to receive said transmitted desired list and to transmit data to the remote ordering apparatus.

Preferably the details of the payment method are recorded in the remote ordering apparatus and an operating PIN number is supplied against the respective apparatus, such that only upon entry of the PIN number into the apparatus can the desired list be sent to the order centre and payment allotted against the payment method.

Preferably the order centre issues to the remote ordering apparatus an order confirmation no. and cost of order.

In another form the invention comprises a method of remotely ordering retail products by means of:

registering the users details and payment method and receiving a remote ordering apparatus and respective PIN no, said remote ordering apparatus comprising:

a scanning device to scan indicia on an object;

a memory to record the data on the object scanned and to produce a list of the objects scanned;

selection means to choose from the list of objects a desired list of objects;

transmission means to transmit the said desired list of objects to an order centre to obtain the objects in said desired list; and

receiving means to receive data from the order centre;

scanning indicia on products or indicia referring to products with said remote ordering apparatus to form a list recorded in the said memory;

selecting from said list recorded in said memory, a desired list of products to be ordered; and

entering said PIN no. into said remote ordering apparatus and transmitting said order to an order centre for filling of the order.

Preferably the said remote ordering apparatus receives a signal of confirmation of order and payment.

A second aspect of the present invention provides an account payment system comprising:

a payment apparatus comprising:

a scanning device to scan data on an account;

a memory to record said data and to produce a list of the accounts scanned;

selection means to choose from the list of accounts a desired list of accounts;

transmission means to transmit the said desired list of accounts to a payment center to facilitate payment of the accounts in said desired list; and

receiving means to receive data from the payment centre; and

a control means located at the payment centre to receive said transmitted desired list and to transmit data to the remote payment apparatus.

Preferably a single handheld unit is adapted to perform the functions of both the remote ordering apparatus and the payment apparatus. In one preferred payment system the accounts are any one or more of: bills, invoices, bank accounts, etc. Preferably the data on the account takes the form of one or more bar codes representative of information such as:

an amount due;

an entity issuing the account;

a bank account into which payment may be made;

details of a product or service for which the account has been raised, etc.

Unless the context clearly requires otherwise, throughout the description and the claims, the words 'comprise', 'comprising', and the like are to be construed in an inclusive sense as opposed to an exclusive or exhaustive sense; that is to say, in the sense of "including, but not limited to".

A preferred embodiment of the present invention will now be described, by way of example only, with reference to the accompanying drawings, in which:

Figure 1 illustrates a remote ordering apparatus according to one embodiment of the present invention;

Figure 2 illustrates schematically a flow diagram illustrating steps in the method of remote ordering of retail products according to one embodiment of the present invention;

Figure 3 illustrates schematically a flow diagram illustrating steps in a method of account payment according to another preferred embodiment of the present invention;

Figure 4 illustrates schematically a flow diagram illustrating a flow of information within a communication network according to a preferred embodiment of the present invention;

Figure 5 illustrates schematically a flow diagram illustrating a flow of payments and/or information according to another preferred embodiment of the present invention; and

Figure 6 illustrates schematically a flow diagram illustrating a flow of information when using the preferred embodiment of the present invention to keep track of an inventory.

To use the home retail ordering system the steps on the flow diagram in figure 2 are followed. The customer registers with the retail provider and receives a remote ordering apparatus to take home. The remote ordering apparatus (1) is logged to the customer and the payment system is recorded against the remote ordering apparatus. Preferably this could be by way of an established electronic payment scheme, such as credit cards or EFTPOS, where the cards are swiped through the card swipe (2). Thus there is a unique credit card or bank account recorded against a respective remote ordering apparatus. A PIN is then given to the customer. The customer's electronic payment details, for example credit card numbers and the like, are then stored in a memory of the handheld unit (1). Hence, after initialisation, it is not necessary for the consumer to re-enter their payment details, at least until such time as those details are changed.

The remote ordering apparatus (1) as shown in figure 1 comprises an indicia scanner, in this case a bar code scanner (3), a display screen preferably a LCD screen (4), a numeric pad (5), control buttons, (6, 7 & 8) and a charger cradle (9).

The customer mounts the charger cradle (9) at a handy position, such as next to the fridge or pantry. The user then scans the bar codes on the required products, such as bread, milk etc. with the bar code scanner (3), which adds these products to the memory of the remote ordering apparatus (1) to form an

ordering list. Additionally catalogues having bar codes for each product could be scanned to add to the ordering list. As each branded product has a unique bar code, there is no confusion as to what product has been ordered.

A scroll button (8) is used to display the list on the LCD screen (4) and scroll through it. Also there is a numeric pad (5) to allow for the addition of the quantity of the product. Further there is in some forms of the remote ordering apparatus means to obtain details of the specific product, such as protein, carbohydrates, fat, fibre, salt and calorie content, as well as country of origin.

When it is time to place an order with the retail provider, the customer reviews the ordering list and confirms which products on the list are required by use of the confirm button (7) as the list is reviewed, thus the customer can check for duplication of products. The customer then selects from preset retailer buttons (10) with what retailer he wishes the order placed. The retailer buttons could designate a store from a national retail group, or designate a store from a particular suburb. The various retailers are identified on the illustrated preferred embodiment using the generic terms "Retailer 1", "Retailer 2" and so forth. However the retailer buttons (10) of other preferred embodiments include indicia which directly identify at least some of the major retailers accessible via the unit (1). For example, the retailer buttons (10) of such embodiments display trade marks which identify major retailing chains. This assists in reinforcing the brand loyalty of the customer towards the retailing chain's house trade mark and provides a further incentive for major retailers to participate in a scheme which employs the preferred embodiment of the present invention.

The particular retailer outlet associated with each of the retailer buttons (10) is definable upon initiation of the unit (1) and may be redefined if the customer's preferred retailers should change over time. The unit (1) includes a memory which is configurable to store retailer data associated with the preferred retailers. This retailer data provides sufficient data to configure the unit (1) to place remote orders with the preferred retailer(s). In one exemplary embodiment, the unit (1) is adapted to accept and read a removable smartcard (similar to the sim cards used in mobile phones) upon which the retailer data is stored. Such smart cards may be distributed to customers by the relevant retail outlets or other distribution means. Other embodiments utilise the scanner (3) to scan bar codes which are representative of the retailer data. Such bar codes may be published by, and sourced from, the retailer. For such embodiments, when the customer decides to add a new retailer to the unit (1), the customer simply uses the scanner (3) to read the relevant retailer data bar code which is stored in the unit's memory. The unit (1) is then automatically configured to function with the newly added retailer.

The customer then operates the send button (6) and inserts the PIN number, sending the order to a retail order centre, by simple mobile phone technology. In some embodiments the retail order center is the store from which the goods are being ordered. However, in other embodiments such as those illustrated in figures 3, 4 and 5, all customer transmissions are routed through a central hub in a manner which will be described in more detail below. The central hub (24) functions as a retail order center for all orders, then liases with the individual retailers as needed.

The use of a PIN number helps protect against use of the unit (1) to engage in unauthorised ordering. In the embodiment shown an orange order sent light (11) lights up to indicate that the order has been sent. A receipt no. is then received on the LCD screen (4) together with confirmation that payment has been allotted against the credit card or account. This would be displayed on the LCD screen (4). A printer could be attached to or form part of the cradle (9) and give a print out of the receipt.

Further the customer can choose to have the order home delivered or to be picked up from the designated store. When the order is ready, the green light (12) lights up.

Additionally, the customer can access details of the products that have been scanned, to check current prices, dietary information, ingredients, and name of manufacturer and the like, by the remote ordering apparatus directly from the order centre.

Further catalogues, pamphlets or advertisements in publications could also list products and their details and be bar coded, such that the customer can scan any of these published products and add them to the ordering list. Additionally a voice activation facility can be provided to list articles that do not have bar codes or for those customers who are visually impaired.

Thus embodiments of the remote retail ordering system provide a combination of hand held bar code scanner technology, with mobile phone technology and credit card swipe technology. This allows the home user to order and pay for the core products of groceries without leaving the house,

without the need of computer knowledge, and by using a simple apparatus. The use of mobile phone technology allows the handheld unit (1) to be portable. Hence, it is not necessary for the user to connect the unit (1) to a computer in order to establish communication with the retailer.

As illustrated in figure 6, another useful function offered by the preferred embodiment of the present invention is the ability to keep an inventory of articles, for example of stock or office supplies, or the like. In this mode, the scanner (3) of the hand held unit (1) is used in step 25 of figure 6 to take an initial stock of the articles which are to form the inventory. For example, if the inventory is of office supplies within a storeroom, the scanner (3) is used to scan the bar codes on all of the office supply articles within the storeroom. For the sake of example, the results of this initial stock take may be as follows:

Article	Count
Pens	20
Rulers	4
Pencil Sharpeners	8
Stamps	12.

This information is stored in the memory of the unit. Then, as each of the articles is taken from the storeroom, their bar codes are once again scanned by the unit. However this time the count stored against that article within the above list is decremented as required. For example, if a ruler is taken, the count of rulers in the above list is reduced from 4 to 3. Hence, at any point in

time, the unit (1) can display on the screen (4) the current inventory list. Optionally, the unit (1) may be configured to provide a warning, for example an auditory and/or visual warning, that the count of any one of the articles has dropped below a given threshold. For example, the warning may be provided once the number of rulers is less than 2. This inventory functionality is operable in conjunction with the remote ordering functionality. In other words, the unit (1) is configurable such that, once the count of articles drops below the pre-set threshold, the unit automatically places an order for a pre-set number of replacement articles. In the above example, once the number of rulers drops below 2, the unit (1) automatically remotely orders 5 replacement rulers in step 26 of figure 6 from a pre-defined retailer.

By linking the data stored in the unit (1) with accounting software, the user can keep track of payments, budgets, and simplify end of year accounts. This arrangement can also be configured to track components of costs, for example the tax component charged in countries with a consumption based tax system such as GST or VAT.

Figure 3 illustrates another aspect of the preferred embodiment of the present invention which provides an account payment system (20). This system (20) utilises the same hand held unit (1) as described above, however the scanning device (3) is used to scan data (21) on an account (22). In other words, the single handheld unit (1) is adapted to perform the functions of both the remote ordering apparatus (as described above) and the payment apparatus.

The accounts (22) are typically bills, invoices, bank accounts, credit card statements and so forth. The accounts (22) may originate from a diverse range of entities, for example utility companies, local authorities, etc. The data (21) on the accounts (22) is typically encoded as one or more bar codes which are representative of the following fields of information:

- an amount due;
- an entity issuing the account;
- an entity against which the account has been issued;
- an invoice number;
- a date on which the invoice was issued;
- a bank account into which payment may be made;
- details of a product or service for which the account has been raised, etc.

Once again, it will be appreciated by those skilled in the art that an effective system may be established which utilises a lesser number of fields of information in comparison to those set out above.

As mentioned above, the unit (1) has a memory which, in the account payment mode, is used to record the data (21) and to produce a list of the accounts scanned. As used in this document, it is to be understood that the scope of the term "list of accounts" refers to a list that may have few as one account or may include a plurality of accounts. This list is displayable on the

screen (4) and the customer uses selection means to define a desired list of accounts. Exemplary selection means include the use of the scroll button (8) to scroll through the list and input means, such as numeric pad (5) and other control buttons (6, 7 & 8), to allow the customer to tailor the list of accounts. For example, the customer may choose to make a part-payment of any given account, and the amount of the part payment is entered at this stage through the key pad (5). In some instances, the customer will scan only those accounts for which the customer is proposing to make full payment. In such an instance, no further customer input is required to define the desired list of accounts because, as a default, the "scanned list of accounts" is treated as the "desired list of accounts" in the absence of contrary customer input.

Once the customer is satisfied with the "desired list of accounts", the customer activates transmission means, such as the "send" button (6), to transmit (step 23 in figure 3) the desired list of accounts to a payment center. The preferred embodiment makes use of mobile phone technology to establish this transmission (step 23), although other communication means such as land based telephone lines, computer network based communications, etc, may be employed. The information in this transmission (step 23) is sufficient for the payment centre (24) to facilitate payment against the accounts in the desired list. For example, the transmission (step 23) in the preferred embodiment includes the following fields of information:

- a code to identify the customer or the unit (1);
- the customer's electronic payment details (eg credit card number);

- the amounts of the payments (as previously defined by the customer) to be made against each of the accounts in the desired list of accounts;
- an invoice number for each of the accounts in the desired list of accounts;
- bank account details for each of the accounts in the desired list of accounts.

Once again, it will be appreciated by those skilled in the art that an effective system may be established which utilises a lesser number of fields of information in comparison to those set out above.

The unit (1) also includes receiving means to receive data from the payment centre. The receiving means of the preferred embodiment is preferably provided by a mobile phone line which establishes two-way communication between the unit (1) and the payment center (24)

A control means, for example a central computer, located at the payment centre, receives the data transmitted by the unit (1) and transmits (in step 28 of figure 3) data to the remote payment apparatus (1). For example, data transmitted to the unit (1) may include an indication as to whether or not the desired payments have been successfully effected. Such an indication is displayed for the customer's benefit upon the LCD screen (4).

As shown in figures 3 to 5, the preferred embodiment includes a central processing centre, or hub (24) through which transmissions from the customer

units (1) are routed. This architecture reinforces the security of communication by facilitating a single protocol between the units (1) and the hub (24). The data communicated between the units (1) and the hub (24) is preferably enciphered prior to transmission and deciphered once received. Hence, unauthorised tapping of the communication signal intermediate of the unit (1) and hub (24) only yields essentially meaningless enciphered data.

The hub architecture also allows for the compilation of valuable marketing data. The central computers at the hub may be configured to store any data arising from transmissions from the units (1) that is considered of importance. As shown in step 27 of figure 4, this data may then be selectively provided to interested parties, such as loyalty providers (28) and/or logistics providers.

A further advantage provided by the hub architecture is that the communication details of the customers need not be disseminated to the various retailers and other parties. Hence, the possibility of the customer's contact details being used for unauthorised activities, such as unsolicited advertising, etc, is reduced.

It should be obvious to people skilled in the art that alterations and modifications can be made to the above described embodiments without departing from the scope and the spirit of the present invention.

CLAIMS

The claims defining the invention are as follows:

1. A retail home ordering system comprising a remote ordering apparatus comprising: a scanning device to scan indicia on an object, a memory to record the data on the object scanned and to produce a list of the objects scanned, selection means to choose from the list of objects a desired list of objects, transmission means to transmit the said desired list of objects to an order centre to obtain the objects in said desired list and receiving means to receive data from the order centre and a control means located at the order centre to receive said transmitted desired list and to transmit data to the remote ordering apparatus.

2. A method of remotely ordering retail products by means of registering the users details and payment method and receiving a remote ordering apparatus and respective pin number, such remote ordering apparatus comprising a scanning device to scan indicia located on an object, a memory to record the data on the objects scanned and to produce a list of the objects scanned, selection means to choose from the list of objects a desired list of objects, transmission means to transmit the said desired list of objects to an order centre to obtain the objects in said desired list and receiving means to receive data from the order centre, scanning indicia on products or indicia referring to products on said remote ordering apparatus to form a list recorded in the said memory, selecting from said list recorded in said memory a desired list of products to be ordered and

entering said pin number into said remote ordering apparatus and transmitting said order to an order centre for filing of the order.

3. An account payment system comprising a payment apparatus comprising a scanning device to scan data on an account, a memory to record the said data and to produce a list of the accounts scanned, selection means to choose from the list of accounts a desired list of accounts, transmission means to transmit the said desired list of accounts to a payment centre to facilitate payment of the accounts in the said desired list and receiving means to receive data from the payment centre and a control means located at the payment centre to receive said transmitted desired list and to transmit data to the remote payment apparatus.

4. The remote ordering apparatus referred to in any one of claims 1 to 2 and the payment apparatus referred to in claim 3 wherein the remote ordering apparatus and the payment apparatus comprise a single hand held unit.

5. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the payment methods are recorded in the apparatus and an operating PIN number is supplied against the respective apparatus such that only upon entry of the PIN number into the apparatus can the desire list be sent to the order centre and payment allocated against the payment method.

6. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus is configured to receive an order confirmation number and a cost of order from the order centre.

5. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus is configured to receive a signal of confirmation of order and payment.

6. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the payment system employed in the apparatus comprises accounts which are any one or more of bills, invoices, bank accounts etc.

7. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus is configured to include data in relation to accounts which take the form of one or more bar codes representative of information such as: an amount due, the entity issuing the account, a bank account into which payment may be made, details of the product or service for which the account has been raised etc.

8. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus uses an established electronic payment scheme such as credit cards or EFTPOS, where cards are swiped through a card swipe which forms part of the device.

9. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus includes a display screen.

10. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus includes an LCD display screen.

11. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus includes a numeric pad

12. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus includes control buttons.

13. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus includes a charger cradle.

14. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus includes a scroll button.

15. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus contains means to obtain the details of the specific objects scanned (for example information such as protein, carbohydrates, fat, fibre, salt and calorie content as well as country of origin (where the object scanned is food stuffs)).

16. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus includes a confirmation button to confirm orders/payments to be made.

17. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the order centre to whom the data is to be transmitted is identified on a button or the screen on the device by reference to a particular organisation or retailer.

18. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the order centre to whom the data is to be transmitted is identified on a button or the screen of the device by displaying trademarks or other indicia which identify retailing chains.

19. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus provides means for the customer to select orders using preset retailer buttons which are definable upon installation.

20. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus provides means to redefine a particular retail outlet associated with a retailer button referred to in claim 19.

21. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus is adapted to accept and read a removable smart card (similar to the SIM cards used in mobile phones) from which a retailers data is stored.

22. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus utilises a scanner to scan bar codes which are representative of the data of a particular retailer.

23. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus utilises a scanner to scan bar codes referred to in claim 22 which enables the apparatus to automatically re-configure to function using the newly added retailer.

24. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the order centre is the store from which goods are being ordered.

25. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the order centre comprises a central hub which functions as a retail centre for all orders and then liases with individual retailers as needed.

26. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus

referred to in claim 4 wherein the apparatus includes an orange order sent light which lights up to indicate that an order has been sent,

27. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein a printer is attached to or forms part of the cradle.

28. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus includes a green light which lights up when an order is ready for delivery.

29. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein a voice activation facility is included in the device to list articles that do not have bar codes or where the user of the device is visually impaired.

30. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus is portable.

31. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus

referred to in claim 4 wherein the apparatus is combined with hand held bar code scanner technology, mobile phone technology and credit card swipe technology to enable the apparatus to be portable.

32. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus is configured to keep an inventory of articles for example, stock or office supplies.

33. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus is configured to provide a warning (for example an auditory or visual warning) that the count of any one article in an inventory referred to in claim 32 has dropped below a given threshold.

34. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the inventory functionality referred to in claim 32 is operable in conjunction with the remote ordering functionality so that where an inventory reveals a deficiency, the apparatus remotely orders a replacement article.

35. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus

referred to in claim 4 wherein the apparatus is configured and adapted to perform the functions of both ordering apparatus and the payment apparatus and used as an account payment system.

36. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the data stored in the apparatus is linked with accounting software.

37. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus is configured to track components of cost (such as VAT or GST).

38. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus is used to scan data on an account.

39. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the data on the account referred to in claim 38 takes the form of one or more bar codes representative of information such as: an amount due, the entity issuing the account, a bank account into

which payment may be made, details of the product or service for which the account has been raised etc.

40. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus produces a list of the accounts scanned ("list of accounts") which may comprise one or more accounts.

41. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the list of accounts referred to in claim 40 is displayable on the screen of the apparatus and the customer uses selection means to define a desired list of accounts.

42. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus includes a means to tailor the list of accounts referred to in claim 40.

43. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus includes a means to transmit payment of the list of accounts referred to in claim 40 (or part thereof), to a payment centre.

44. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus includes the following fields of information: a code to identify the customer or the unit, the customer's electronic payment details (eg credit card number), the amount of the payments (as previously defined by the customer) to be made against each of the accounts in the desired list of accounts, an invoice number for each of the accounts in the desired list of accounts, bank account details for each of the accounts in the desired list of accounts.

45. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus includes receiving means to receive data from a payments centre.

46. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus includes receiving means to receive data from a payment centre wherein the receiving means is provided by a mobile phone line which establishes a two way communication between the apparatus and the payment centre.

47. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus displays information on its

screen as to whether or not a desired payment has been successfully effected.

48. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus is configured to communicate with a central hub through which transmissions from the customer are routed.

49. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus enciphers transmission to a central processing centre or hub which then deciphers such transmission.

50. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the central processing hub referred to in claim 49 is configured to store data arising from the transmissions from the apparatus.

51. The remote ordering apparatus referred to in any one of claims 1 to 2 or the payment apparatus referred to in claim 3 or the combined apparatus referred to in claim 4 wherein the apparatus receives a signal of confirmation of order and payment.

52. A retail home ordering apparatus substantially as herein described with reference to the accompanying drawings.

53. A retail home ordering system substantially as herein described with reference to the accompanying drawings.

54. A remote retail ordering system substantially as herein described with reference to the accompanying drawings.

55. A remote retail ordering apparatus substantially as herein described with reference to the accompanying drawings.

56. A remote payment apparatus substantially as herein described with reference to the accompanying drawings.

57. An account payment system substantially as herein described with reference to the accompanying drawings.

58. A single hand held unit adapted to perform the functions of both remote ordering apparatus and the payment apparatus substantially as herein described with reference to the accompanying drawings.

RETAIL HOME ORDERING SYSTEM AND BILL PAYMENT SYSTEM

EZYSHOPPER@HOME PTY LIMITED

3rd June 2002

Fig 1

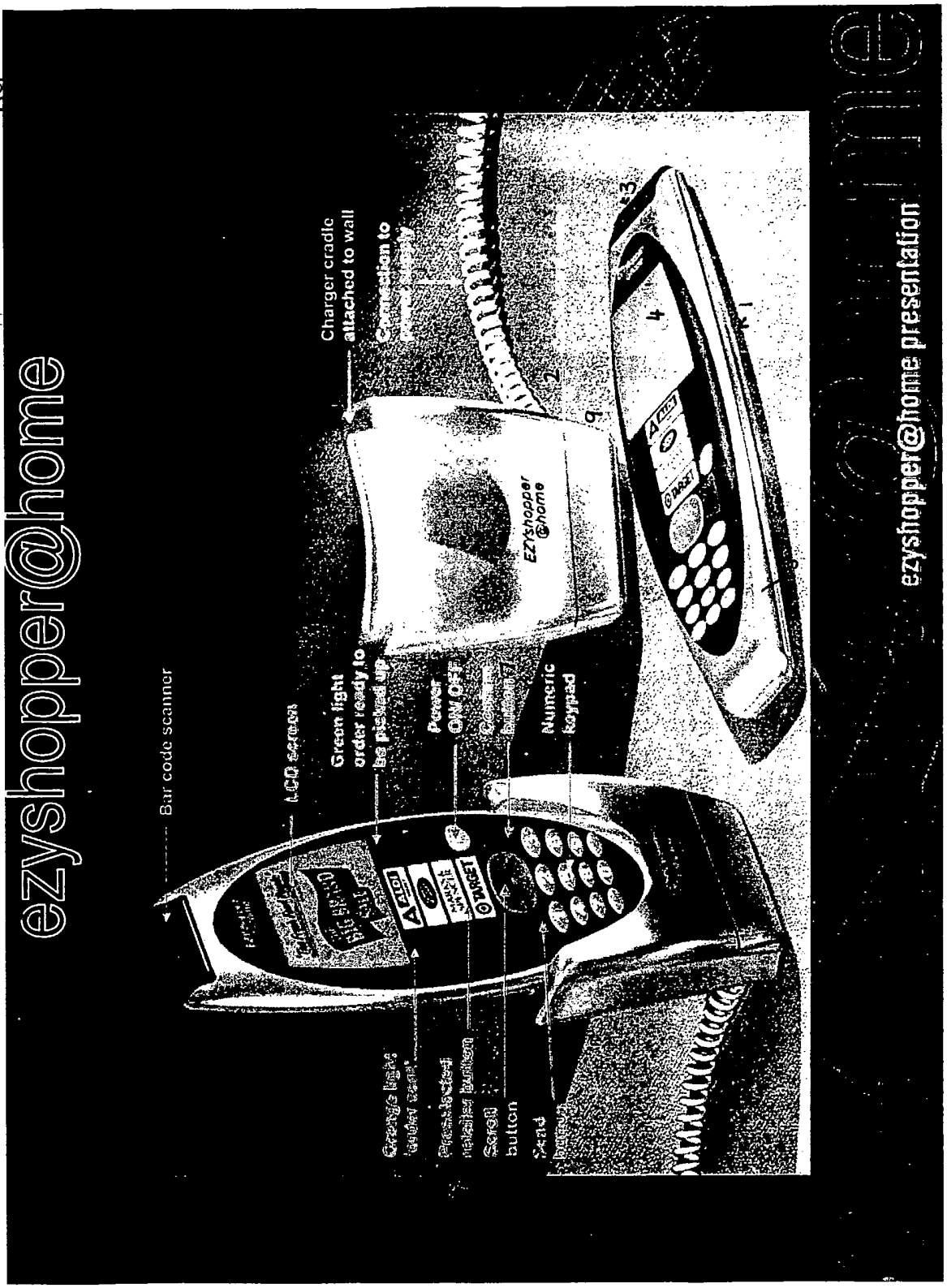

ezyshopper@home
Bar code scanner
LCD screen
Green light order ready to be picked up
Power ON/OFF
Numeric keypad
Charger cradle attached to wall
ezyshopper@home presentation

Fig 2

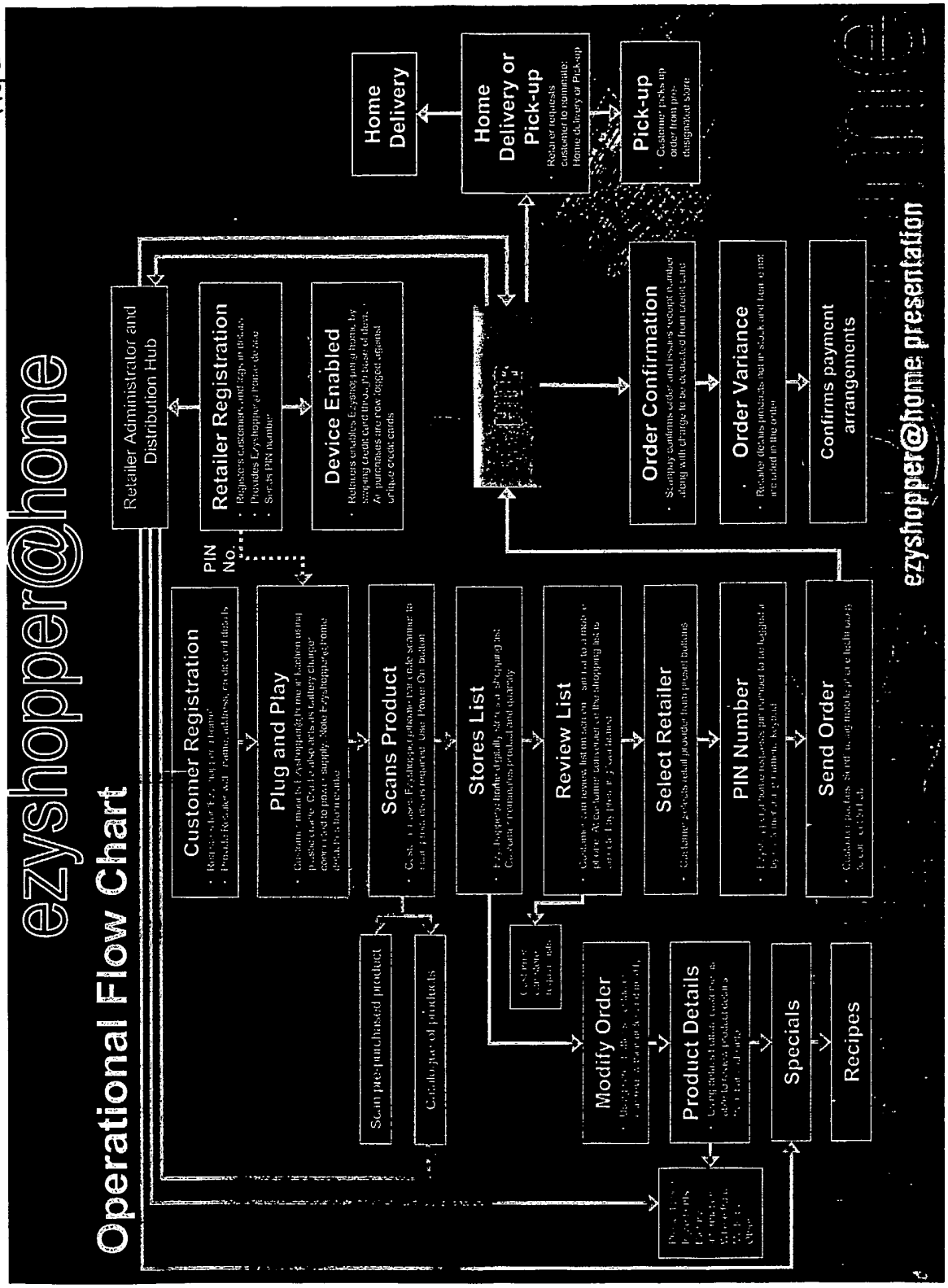

ezyshopper@home
Operational Flow Chart
Retailer Administrator and Distribution Hub
Retailer Registration
Device Enabled
Customer Registration
Plug and Play
Scans Product
Stores List
Review List
Select Retailer
PIN Number
Send Order
PIN No.
Home Delivery
Home Delivery or Pick-up
Pick-up
Order Confirmation
Order Variance
Confirms payment arrangements
Scan pre-purchased product
Catalogue of products
Modify Order
Product Details
Specials
Recipes
ezyshopper@home presentation

Fig.3

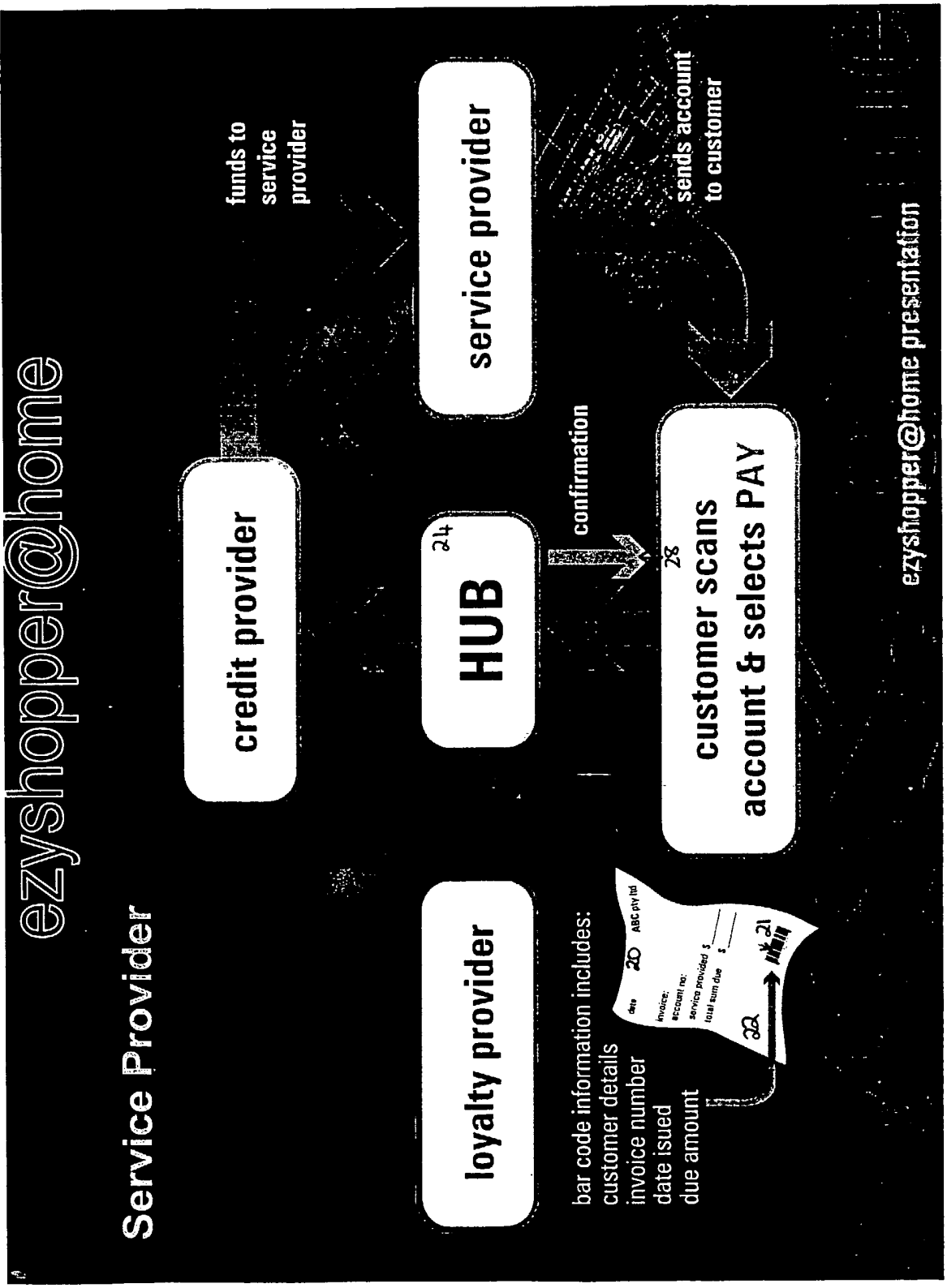

ezyshopper@home
Service Provider
credit provider
loyalty provider
HUB
24
service provider
funds to service provider
confirmation
sends account to customer
customer scans account & selects PAY
28
bar code information includes:
customer details
invoice number
date isued
due amount
ABC pty ltd
date
invoice:
account no:
service provided $
total sum due $
20
21
22
ezyshopper@home presentation

Fig 4

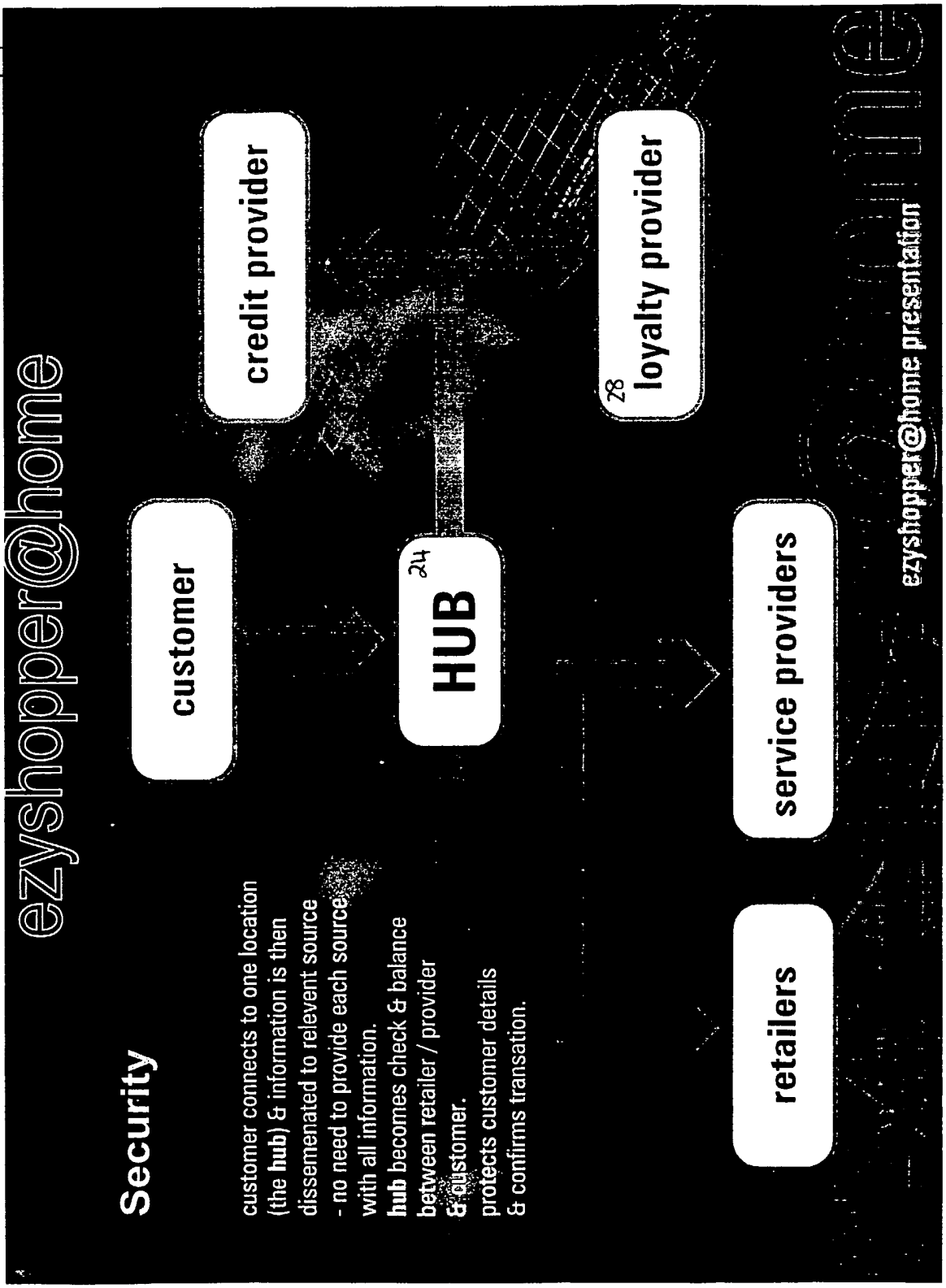

ezyshopper@home
Security
customer connects to one location (the hub) & information is then dissemenated to relevent source - no need to provide each source with all information.
hub becomes check & balance between retailer / provider & customer.
protects customer details & confirms transation.
customer
credit provider
HUB
24
loyalty provider
28
retailers
service providers
ezyshopper@home presentation

Fig 5

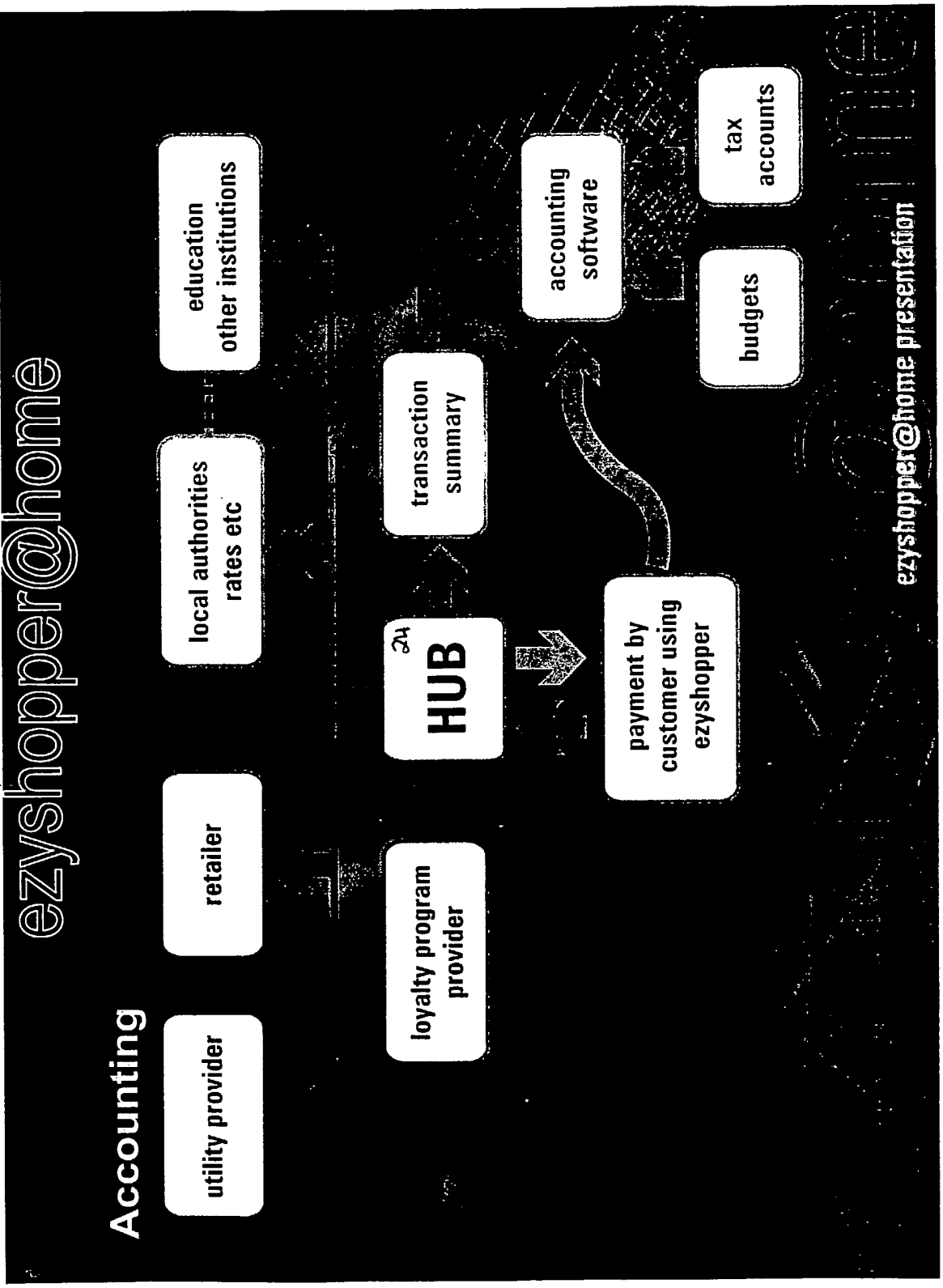
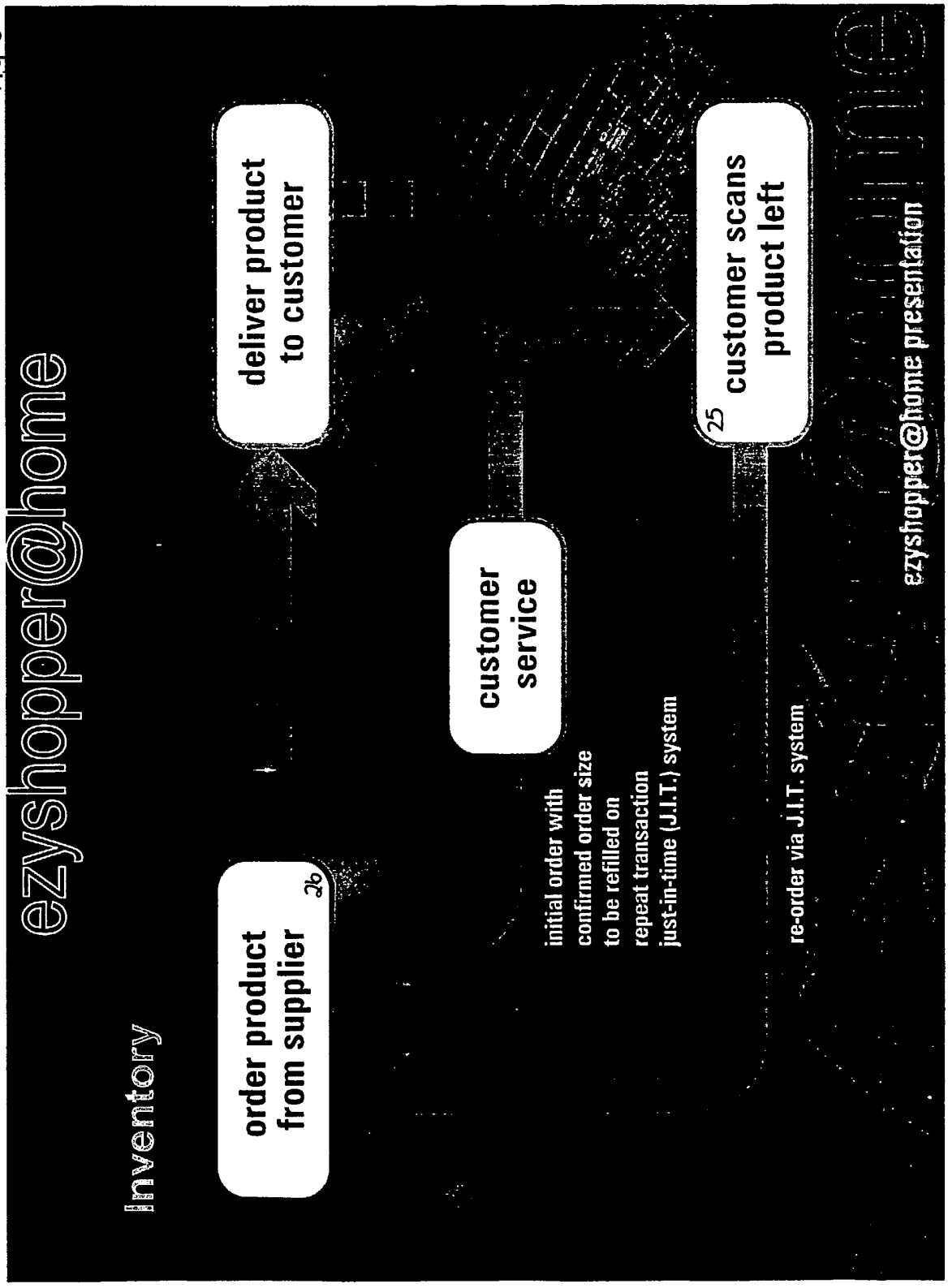

ezyshopper@home
Accounting
utility provider
retailer
loyalty program provider
education other institutions
local authorities rates etc
HUB
transaction summary
payment by customer using ezyshopper
accounting software
budgets
tax accounts
ezyshopper@home presentation

Fig 6


ezyshopper@home
inventory
order product from supplier
26
deliver product to customer
customer service
initial order with confirmed order size to be refilled on repeat transaction just-in-time (J.I.T.) system
re-order via J.I.T. system
25
customer scans product left
ezyshopper@home presentation

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU02/00706

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. [7]: 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)

IPC: G06F 15/21, 15/24, 17/60, 19/00, 153:00

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. Eg keywords: scan/barcod, remote/home/internet/web/portable/mobile, order, bill/account/invoic/transact

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6101483 (Petrovich et al.) 8 August 2000. See in particular col 4 lines 55-61 and col 11 line 47 - col 12 line 8.	1, 2, 4-55
X	EP 1011061 (IBM Corp) 21 June 2000. See in particular col 6 lines 7-12.	1, 2, 4-55
X	WO 99/12116 (Internet Cargo Services, Inc.) 11 March 1999. See in particular pg 14 lines 24-28 and pg 25 line 23 - pg 26 line 14.	1-58
X	GB 2282906 (Dataquill Ltd.) 19 April 1995. See in particular pg 15 lines 26-33 and pg 20.	1, 2, 4-55

[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
8 August 2002	19 AUG 2002
Name and mailing address of the ISA/AU	Authorized officer
AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustralia.gov.au Facsimile No. (02) 6285 3929	SEAN APPLEGATE Telephone No : (02) 6283 2207

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU02/00706

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 90/08440 (Bianco) 26 July 1990. See in particular pg 8 lines 11-26.	1, 2, 4-55
X	GB 2202664 (Robb) 28 September 1988.	1, 2, 4-55
A	GB 2352063 (International Computers Limited) 17 January 2001.	1, 2, 4-55
A	WO 00/13120 (On Point Technology Systems) 9 March 2000.	3-51, 56-58
A	WO 97/08643 (Visa International Service Association) 6 March 1997.	3-51, 56-58

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/AU02/00706

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	6101483	NONE					
EP	1011061	GB	2344904	JP	2000177808		
WO	9912116	AU	92173/98	CA	2302553	EP	1019856
GB	2282906	AU	77033/94	CA	2173249	CN	1133100
		EP	723687	EP	840248	GB	2282907
		HK	1492/96	NZ	329708	US	6058304
		WO	9510818	NZ	273652	GB	2271760
WO	9008440	AU	50816/90	EP	454787	US	5047614
GB	2202664	NONE					
GB	2352063	NONE					
WO	200013120	AU	55834/99				
WO	9708643	AU	70121/96	BR	9606615	CA	2203756
		EP	789887				

END OF ANNEX