

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
10 March 2005 (10.03.2005)

PCT

(10) International Publication Number
WO 2005/021283 A1

(51) International Patent Classification⁷: **B42D 15/10**

(21) International Application Number:
PCT/AU2004/001166

(22) International Filing Date: 27 August 2004 (27.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003904689 29 August 2003 (29.08.2003) AU

(71) Applicant (for all designated States except US): **1900 LIVE PTY LTD** [AU/AU]; 1st Floor, 130 Bourke Street, Melbourne, Victoria 3000 (AU).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **SCOTT, Stephen** [AU/AU]; 1st Floor, 130 Bourke Street, Melbourne, Victoria 3000 (AU).

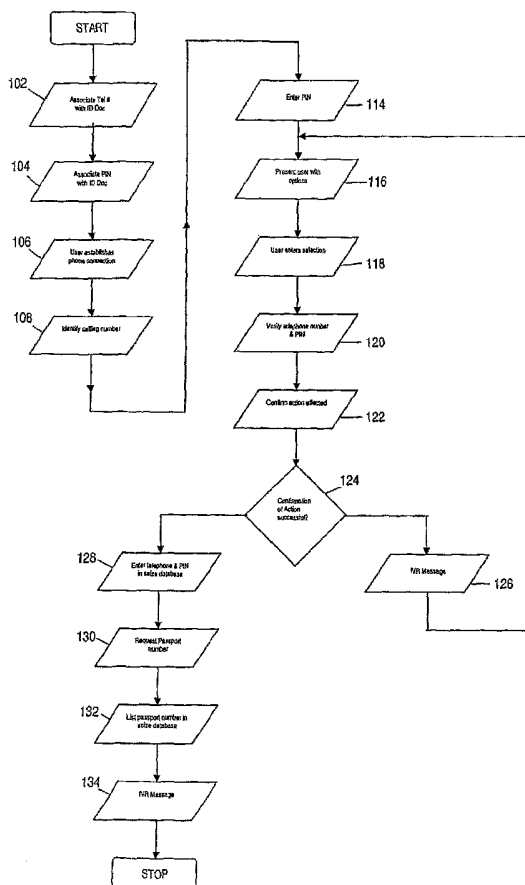
(74) Agent: **WATERMARK PATENT & TRADEMARK ATTORNEYS**; 290 Burwood Road, Hawthorn, Victoria 3122 (AU).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, 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, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

[Continued on next page]

(54) Title: DOCUMENT VERIFICATION SYSTEM



(57) Abstract: A method for enabling a user to effect an action with respect to records pertaining to an identification document or document that has an identification function, including the steps of: associating a telephone number with the document; the user establishing a communications link which identifies the telephone number; verifying that the telephone number with which the communications link is established corresponds with the telephone number associated with the document; and enabling the user to effect an action with respect to the records pertaining to the document only if the verification is successful.



FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

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.

Published:

— *with international search report*

DOCUMENT VERIFICATION SYSTEM

FIELD OF THE INVENTION

5 The present invention relates generally to the verification of documents, and in particular to a system and method for providing enhanced security with respect to the issuance and use of identification documents such as passports or documents that are intended to be used for other purposes but have an identification function such as cards that are used to access accounts.

10

BACKGROUND OF THE INVENTION

 The ability to correctly identify individuals, especially when entering or leaving a country across national borders, has assumed increased importance in recent years due to the increasing threat of terrorism. However, the primary
15 means for identifying and tracking the movement of individuals across borders is the use of paper documents, such as passports. Although the increased computerisation of customs procedures has improved the ability to track the movements of individuals, the system is still only as reliable as the documents presented by travellers at customs desks.

20 Theft and fraudulent use are major problems associated with important identification documents, such as passports. For example, a stolen passport can be modified by a skilled forger to include a photograph of a person other than the passport's original owner and/or a new passport number. The person shown in the photograph is then, for all practical purposes, able to travel using the passport
25 under the assumed identity of the original owner and/or a new identity. This may enable a person known to the authorities in a particular country to leave or enter that country undetected.

 Theft of identification documents or documents that have an identification function may occur as a result of a burglary of an owner's place of residence. In
30 some instances, the owner may not be immediately aware that their passport or other important documentation has been stolen, providing the thief with ample opportunity to sell the stolen documents, and for them to be modified and/or used fraudulently.

Further exacerbating these problems is the fact that, in many cases, new identification documents and documents with an identification function are sent out to their owners in the mail. These documents may therefore be intercepted and used fraudulently before the rightful owner is even aware that they have been
5 stolen.

Additionally, many important identity documents have relatively long periods of validity, for example ten years or more. One reason for this is that the overheads associated with reissuing or revalidating documents are presently relatively high, for both the document holder and the issuing authority.
10 Accordingly, it is inefficient and inconvenient to require document holders to reapply for replacement documents at shorter time intervals. The disadvantage of such long periods of validity is that they present an extended window of opportunity for the trafficking in valid documents for fraudulent use. It is, for example, possible for documents belonging to a deceased person to remain valid
15 for many years after their death, unless some action is taken to cancel the documents rather than simply allowing them to expire.

The same problem exists with respect to other documents such as cards that are used to access accounts and in particular, credit cards. Fraudulent use of credit cards is a significant problem. Some issuing authorities have taken steps
20 in an attempt to reduce the incidence of interception and fraudulent use of a newly issued credit card. For example, some issuers require an activation process to be executed before the card will be effective. However, this process is usually limited to requiring the recipient of the card to call an operator and provide some detail of the user such as their birth date. Unfortunately, the detail required
25 is usually information that is relatively easy to obtain thus allowing theft of a newly issued card from a mailbox and activation of the card by a fraudulent user.

Accordingly, there is a need for a more secure means and method of verifying the correct delivery and possession of important documents, and in particular for limiting the circumstances in which identification documents and
30 documents with an identification function may be fraudulently used.

It is also desirable to provide a means and method by which the legitimate holder of a document may conveniently and securely effect certain actions with respect to the document, such as renewal, cancellation and revalidation, thereby

providing the document holder with greater individual control over the maintenance of the document.

Additionally, it is desirable to provide an efficient means and method whereby document holders are required to communicate with the issuing
5 authority on a more frequent basis than is presently the usual practice, in order to increase the confidence of the authority that issued documents remain under the control of their legitimate owners.

Any discussion of documents, devices, acts or knowledge in this specification is included to explain the context of the invention. It should not be
10 taken as an admission that any of the material formed part of the prior art base or the common general knowledge in the relevant art on or before the priority date of the claims herein.

SUMMARY OF THE INVENTION

15 The Method of the Invention

In one aspect, the present invention provides a method for enabling a user to effect an action with respect to records pertaining to an identification document or document that has an identification function, including the steps of:

associating a telephone number with the document;
20 the user establishing a communications link which identifies the telephone number;

verifying that the telephone number with which the communications link is established corresponds with the telephone number associated with the document; and

25 enabling the user to effect an action with respect the records pertaining to the document only if the verification is successful.

Accordingly, the user is only able to effect an action with respect to the records of a document by calling from the telephone number associated with the document, thus providing a relatively high level of confidence that the user is the
30 person that was the intended recipient/user of the document.

In a particularly preferred embodiment, a personal identification number (PIN) is associated with the document and in addition to the step of identifying the

telephone number, a PIN is obtained from the user over the communications link. In this particular embodiment, in addition to verifying that the telephone number corresponds with that number previously associated with the document, the PIN obtained from the user is also verified as corresponding with the PIN previously associated with the document. The PIN provides an additional level of security such that a user is only able to effect an action with respect to the records of a document by calling from the telephone number associated with the document and providing the PIN previously associated with the document.

In one embodiment, the document is a passport and the communications link is established by use of the telephony network. Alternatively, the document may be any other type of document that is intended to identify the user, such as a driver's license, a pilot's license or any identification document for security purposes or, a document that has other purposes but is only intended to be used by a legitimate owner such as credit cards or cards for accessing cash. In another embodiment, the number of the document assigned by the issuing authority is also required from the user before they are able to effect any action with respect to records pertaining to the document.

Advantageously, the records pertaining to the document may be accessed by an authorised person or organisation in order to determine the status of the document as part of a procedure used to assess whether the document is being used fraudulently. For example, customs officials would be able to verify that an issued passport has been correctly validated by an authorised user in accordance with the method of the invention.

Identifying the Calling Number

The step of identifying the telephone number preferably includes obtaining the telephone number using a calling line identification service. Alternatively, the telephone number may be obtained using a calling number display service.

As a further alternative, the user may provide the telephone number to the verification server via the communications link, and the verification server confirms that the user is actually calling from the number provided by disconnecting and calling the user back, referred to as a "call back" service. In a preferred method, prior to disconnecting, the user is provided with a temporary

code and upon calling the user, the temporary code is requested. Provision of the temporary code provides a higher level of confidence that the user providing the code is the user who previously placed the call from the telephone number provided to the verification server.

- 5 Advantageously, public switched telephony networks provide a relatively high level of security, making it extremely difficult for an unauthorised user to falsify a calling number identification in order to circumvent the security of a method of the invention.

Nominating a Telephone Number

- 10 Preferably, the step of associating a telephone number with the document includes the user providing the telephone number as part of the process of applying to an issuing authority to obtain the document. Alternatively, an issuing authority may associate a telephone number with the document based upon other personal details of the user provided at the time of application for the document,
15 for example the issuing authority may obtain a telephone number based upon the user's name and address. The user may subsequently be allowed to change the telephone number associated with the document.

- It is preferred that the telephone number associated with the document is a number corresponding to a fixed terrestrial telephone line. Advantageously, this
20 enables the owner of the line to be easily identified, improving the security of the method by making it difficult for unauthorised users to conceal or falsify their identities.

- It is particularly preferred, in order to ensure a relatively high level of security, that the telephone number associated with the document is the user's
25 own home telephone number. However, the telephone number may alternatively be the user's mobile telephone number, business telephone number, the telephone number of a trusted friend or relative, or any other telephone number nominated by the user and acceptable to the issuing authority.

Nominating a Personal Identification Number (PIN)

- 30 The step of associating a PIN with the document preferably includes the user providing their chosen personal identification number as part of the process of applying to obtain the document. This provides the advantage that it is then

extremely difficult for an unauthorised user to obtain the personal identification number in order to circumvent the security of the method. Alternatively, the issuing authority may choose a personal identification number, for example at random, and transmit it to the user independently of the document. The user may
5 subsequently be allowed to change the personal identification number associated with the document.

In a particularly preferred embodiment, the PIN includes four digits. However, it will be appreciated by those skilled in the art that different numbers of digits may be used for the personal identification number, and that the personal
10 identification number should not be limited to contain only numeric characters.

Verification Server / IVR Gateway

In preferred embodiments, the method also includes the step of providing a verification server connected to a telephony network. The step of establishing a communications link may include the user dialling a telephone number that
15 connects the user's telephone to the verification server.

Preferably, the verification server includes an interactive voice response gateway. The verification server may include a database. In a particularly preferred embodiment, the database contains records including data such as the telephone numbers associated with documents and is a database maintained by
20 the issuing authority.

In the event that verification of any details is not successful, the method may include a range of options depending upon the type of error during the verification process. For example, when a PIN is incorrect, the user may be informed and advised to re-enter the PIN. However, in the instance that a more
25 serious verification failure occurs, further details of the document may be requested such as the document number as issued by the issuing authority and the details of the attempt to effect actions with respect to the document may be passed to a relevant law enforcement agency.

In any event, once a verification failure occurs, an entry in a database, referred to as a "seize" database, occurs and further actions with respect to
30 entries in the "seize" database may be decided by a relevant authority.

PIN Entry

In preferred embodiments, the step of obtaining a PIN from the user includes the verification server prompting the user to enter the number. The prompt may be a voice prompt. The verification server may obtain a PIN by the
5 user entering the digits of the number using the touch-tone keys of the telephone. Alternatively, a voice recognition system may be employed in the verification server to enable the user to speak the digits of the personal identification number.

Choice of Action

The action that the user is able to effect may include one or more of the
10 following: validating the document; cancelling the document; and reinstating the document. A particular advantage of the invention in its preferred forms is that the document may be initially invalid for use, however upon receipt by the intended recipient the document may be validated through the use of the method provided by the invention. This prevents unauthorised use by any party
15 intercepting the document prior to its receipt by the rightful owner.

Preferably, the verification server provides the user with a menu of numbered options to access the available actions. The menu may be a voice menu. The user may effect the desired action by entering the corresponding number via the touch-tone keys of the telephone. Alternatively, voice recognition
20 may be employed in the verification server to enable the user to select the desired action by speaking the corresponding number.

In some embodiments, the user may be required to provide a further identifying number associated with the document prior to the action being effected.

25 Interface with Issuing Authority

In preferred forms, the step of verifying that the user's telephone number and the PIN obtained correspond with the telephone number and PIN associated with the document includes sending the telephone number and the obtained PIN to the issuing authority of the document for verification. The issuing authority may
30 respond with an indication of whether the telephone number and PIN are valid or invalid.

Preferably, the step of enabling the user to effect an action includes sending a request to effect the action to the issuing authority. The issuing authority may respond with an indication of whether the attempt to effect the action has been successful or unsuccessful.

5 In particularly preferred embodiments, communication with the issuing authority is entirely electronic such as, for example, via a database interface over a communications network. Advantageously, this arrangement ensures that it is not necessary for the user or the provider of the document verification service to have access to any of the detailed, and potentially confidential and sensitive, data
10 held by the issuing authority in order to perform a verification step.

The System of the Invention

In another aspect, the present invention provides a system for enabling a user to effect an action with respect to records pertaining to an identification document, or document that has an identification function including:

15 a network, within which the user is able to establish a communications link; identifying means for identification of the telephone number with which a communications link is established; verifying means for verification that said telephone number corresponds with a telephone number previously associated with the document; and
20 means for enabling the user to effect an action with respect to records pertaining to the document only upon successful verification that the telephone number verified by the verification means corresponds with the telephone number identified as the number with which a communications link was established.

Preferably, the means for identifying the telephone number includes a
25 calling line identification service, a calling number display service or a call back service.

In an embodiment where a PIN is also associated with the document, the system includes a means for obtaining a PIN from the user via the communications link and means for verifying that the PIN obtained from the user
30 corresponds with the PIN previously associated with the document. In this embodiment, the user is only allowed to effect an action in relation to the records

pertaining to the document if verification of both the telephone numbers and PIN numbers is successful.

In preferred embodiments, the system further includes a verification server connected to a communications network in the form of a telephony network, such
5 that the communications link established by the user connects the telephone to the verification server. The user may establish the communications link by dialling a telephone number corresponding to the verification server.

Preferably, the verification server includes an interactive voice response gateway. The verification server may further include a computer system
10 programmable to carry out one or more of the functions of the system. The verification server may include a database. In a particularly preferred embodiment, the database contains records including telephone numbers associated with documents for the purpose of verifying the originating telephone numbers of incoming connections and is maintained by the issuing authority.

15 The means for obtaining a PIN may include electronic hardware and/or computer program code capable of receiving touch-tone signals from a telephone via the telephony network so that the user is able to enter a PIN via the keypad of the telephone.

In a particularly preferred embodiment, the computer system in the
20 verification server is able to create an electronic connection to an interface to a database maintained by the issuing authority of the document. The means for verifying that said telephone number corresponds with a telephone number associated with the document and the means for verifying that said PIN corresponds with a PIN associated with the document may include computer
25 program code designed to open a connection to the issuing authority database, and to request verification that the telephone number and PIN correspond to numbers associated with a document. The computer program code may further be designed to receive a response from the issuing authority database indicating whether the telephone number and PIN are valid or invalid.

30 Preferably, the means for enabling the user to effect an action includes computer program code designed to provide the user with a menu of numbered options to access the available actions. The menu may be a voice menu. The user may effect the desired action by entering the corresponding number via the

touch-tone keys of the telephone. The computer program code may further be designed to open a connection to the issuing authority database, and to send a request to effect an action selected by the user. The computer program code may be further designed to receive a response from the issuing authority
5 database indicating whether the attempt to effect the action has been successful or unsuccessful.

The Method of the Invention from the User's Perspective

In a further aspect, the present invention provides a method for a user to effect an action with respect to records pertaining to an identification document or
10 document that has an identification function, including the steps of:

establishing a communications link; and

transmitting an instruction to effect an action with respect to records pertaining to the document over the communications link,

wherein the establishment of a communications link identifies the
15 telephone number from which the link is established at the receiving end of said communications link, and wherein the user is only permitted to effect an action with respect to records pertaining to the document if the telephone number corresponds with a telephone number previously associated with the document.

In an embodiment where a PIN is also associated with the document, a
20 PIN is transmitted via the communications link and the instructions to effect an action is only permitted if the transmitted PIN corresponds to a PIN previously associated with the document.

The Method of the Invention from the Issuing Authority's Perspective

In still a further aspect, the present invention provides a method for
25 enabling a user to effect an action with respect to records pertaining to an identification document, or document that has an identification function including the steps of:

receiving credentials of the user including the telephone number from which the user has established a communications link; and

30 authorising the user to effect an action with respect to the document only if the telephone number from which the communications link is established corresponds with a telephone number previously associated with the document.

Preferably, a PIN is obtained from the user via the communications link and authority for the user to effect an action is only provided if the PIN obtained from the user corresponds with a PIN previously associated with the document and the telephone numbers also correspond.

5 Further benefits and advantages of the method and system according to the present invention will become apparent in the following description of a preferred embodiment of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

10 A preferred embodiment of the invention will now be described. The following description should not be considered to limit the scope of the invention or any of the preceding statements. The preferred embodiment is described with reference to the accompanying drawings in which:

Figure 1 is a flow chart illustrating a method according to the present
15 invention; and

Figure 2 is a block diagram of a secure document verification system according to the present invention.

DESCRIPTION OF PREFERRED EMBODIMENT

20 For convenience, the following example of a preferred embodiment of the invention relates to the specific example of a passport application, however it will be appreciated by those skilled in the art that the invention is not limited to this particular use.

In accordance with the invention, an applicant applying for a passport
25 includes in the application a nominated telephone number, most preferably a home telephone number, and a nominated PIN being, for example, a four digit number devised at the applicant's choice.

By including these details in the application, the numbers become associated with the identity document, which is a passport in this example, in
30 accordance with the steps 102, 104 of the flow chart 100 shown in Figure 1.

When the application has been processed by the issuing authority, the passport is sent to the applicant, for example by postal mail. Upon receipt of the new document, the applicant uses the nominated telephone to establish a

communications link, in accordance with the step 106. At the receiving end of the link, the calling number is identified 108, for example using a calling line identification (CLI), calling number display (CND) service or a call back service (CBS) as provided by the intervening telephony network.

5 The applicant is then prompted 114 to provide a PIN, as a further stage of verification. This provides at this point an identification number consisting of a total of, for example, 14 digits, being 10 digits of the telephone number (including area code) and a four digit personal identification number, offering a relatively high level of security.

10 Accordingly, in the next step 116 the user is provided with a list of options for actions that they are able to effect with respect to the records pertaining to the new passport. This list may include, for example, validate a new passport; cancel an existing passport; and reinstate an existing passport.

 For security purposes, the new passport will have been sent out to the
15 applicant without having been validated. The records pertaining to the passport will accordingly indicate that the passport is not validated and upon any attempt by any person to use the passport, the records will be checked by an authorised person such as a customs officer who may then seize the passport. Thus, until the passport has been validated by the applicant, it cannot be used by any
20 authorised or unauthorised person thus preventing fraudulent use of the newly issued passport.

 In the case of a new passport, the applicant will be required to initially validate same and will select this option at the step of entering a selection 118. Unauthorised persons who may intercept the passport will generally not have
25 access to the nominated telephone and will also not know the associated PIN and therefore will be unable to validate the passport.

 In the next step 120 the combination of the telephone number and PIN are submitted to the issuing authority database for verification to ensure that they are associated with an issued passport. At step 122, the user request is sent to the
30 issuing authority to effect the selected action.

 At step 124, confirmation or otherwise of successfully effecting the user's requested action may be provided by the issuing authority. If the action is successfully effected, the method proceeds to step 126 wherein an IVR message

is provided to the user confirming that the action was successful. The method may then proceed back to step 116 wherein the user is once again presented with a menu of options. If the user does not require any further actions to be effected, they may simply terminate the call by hanging up the telephone.

5 However, if at step 124 the issuing authority provides an indication that the requested action was not successful, the method proceeds to step 128 wherein the telephone number and PIN previously supplied by the user is entered into the "seize" database. Subsequently, the method proceeds to step 130 wherein the passport number is requested from the user in order to identify the particular
10 passport number for which a user may be attempting to fraudulently use. Once the passport number has been obtained from the user, the method proceeds to step 132 wherein the passport number is also listed in the "seize" database. The method then proceeds to step 134 wherein an IVR message may be provided to the user. In a particularly preferred embodiment of the invention, the IVR
15 message provided at step 134 does not provide any indication to the user that the attempted fraudulent use has been detected although the entry of the passport number in the "seize" database will automatically be identified to a customs official when the user attempts to use the passport. This particular approach has the beneficial advantage that although an attempted fraudulent use of a passport
20 has been identified the user is not alerted to the detection of their attempted fraudulent validation of the passport and hence will be unaware that customs officials or law enforcement officers will be monitoring the use of the passport for the purposes of detaining the fraudulent user.

 A system for automating the method of the invention is illustrated in Figure
25 2. The system includes the applicant user's telephone 202 connected to a communications network in the form of a telephony network 204. By dialling an appropriate telephone number, which may be provided, for example, along with the new passport when delivered by mail, the user is able to establish a telephone connection as a communications link to a receiving location 206. At
30 the receiving location there is provided a verification server 208 including an interactive voice response gateway, which includes a switch 210 for routing incoming calls, programmable computing means 212 for terminating incoming calls and carrying out processing operations, and local data storage 214.

A connection 216 may be opened from the verification server to a database 218 operated by the passport issuing authority. Although shown as a connection distinct from the telephony network in Figure 2, the connection 216 may also be via the telephony network if required. Alternatively the connection
5 may be via a dedicated communications channel, or may be via another network such as the Internet.

The computing means is programmed to carry out the processing steps required to implement the method described previously with reference to Figure 1.

10 A software program therefore provides means for identifying the telephone number of the telephone 202, for example using calling line identification or calling number display or a call back service, as required at step 108.

The software also provides means for verifying that the telephone number corresponds with the telephone number associated with the passport. At step
15 120, this may include checking the identified number against a database of all nominated telephone numbers held in the local storage 214.

The software further provides means for obtaining a personal identification number from the user via the communications link, for example by receiving touch-tone signals generated by the user pressing buttons of the key pad of the
20 telephone 202. Alternatively, the PIN may be obtained by a live operator.

Also included in the software are means for verifying that the personal identification number provided by the user corresponds with the personal identification number associated with the passport. This may be implemented via the connection 216 to the database 218 of the issuing authority. A request may
25 be sent to the database to verify the credentials consisting of the personal identification number and the telephone number, to which the database responds with an indication of whether or not the combination is valid.

The software also includes means for enabling the user to effect an action with respect to the records pertaining to the passport via the menu of choices
30 presented in accordance with step 116. The software may provide the user with a menu of numbered options to access the available actions, which may be a voice menu over the telephone link. The user selects the desired action by entering the corresponding number via the touch-tone keys of the telephone. The

software then sends a request to effect the selected action via the connection to the issuing authority database, and receives a response indicating whether the attempt to effect the action has been successful or unsuccessful.

It will be appreciated by those skilled in the art that many further variations
5 of the invention are possible, in addition to what is described in the foregoing preferred embodiment.

For example, the method and system of the invention may be used to cancel a document rather than to validate the document. In an embodiment, the cancellation action will be successful so long as the user is validated according to
10 the telephone number and personal identification number, and the document is currently valid. This enables the user to prevent any unauthorised use of the document after it is lost or stolen. Furthermore, if the document is subsequently recovered, the system and method of the invention may be used to revalidate it.

Further, or alternatively, security measures may also be introduced. For
15 example, verification of identification may include requiring the user to enter their date of birth, and/or to enter their first name using the keypad.

If a user is having difficulties with the automated system, or is receiving repeated unsuccessful responses from the issuing authority database, the system could recognise the problem and offer to switch the user to a live operator at the
20 issuing authority office.

For users without fixed home telephone lines, the option of providing a mobile number may be provided. Users may alternatively or additionally be permitted to provide the telephone numbers of trusted friends or relatives if they do not have other access to a suitable telephone line. An option to enter the
25 nominated telephone number via a telephone keypad, rather than obtaining it from calling line identification, may be provided to enable the service to be used, for example, from overseas in an emergency.

In the particular instance of a user being overseas and losing all of their identification documents, the unique identification number accorded to users of
30 the system may be used by overseas Consulates as a means of identifying individuals. In this respect, it would usually be very difficult to require individuals to remember a long identification number comprising 18 or more digits. However, where those numbers accord with the users telephone number, birth date and a

four digit PIN, the difficulty in memorising such a number is restricted to the PIN as the other numbers are usually easy for most people to recall. By using this unique number accorded to a user by the system of the present invention, overseas Consulates would also have an improved level of confidence with respect to the identify of an individual who claimed to have lost all documents that could serve to identify them.

As a further enhancement of security procedures for important documents, the system and method of the present invention may be used to implement an efficient and cost effective periodic revalidation program. For example, document holders may be required to use the system to revalidate their documents at regular intervals, e.g. annually, otherwise the document is automatically invalidated. This would ensure that in cases where a document holder was not aware that the document was missing or stolen, or where the document holder has died, the period of validity during which the document may be used fraudulently is limited. It would also ensure that document holders are compelled to maintain regular contact with the issuing authority. In a particularly preferred embodiment, a system according to the present invention places calls to owners of documents to initiate re-validation of the document and warn the user that cancellation of the document is pending unless re-validation is effected.

Furthermore, the requirement for periodic revalidation may be accompanied by a fee, and in this case the system and method of the present invention may be further enhanced to provide for automatic charging of the fee to a bank account or credit card account of the applicant, or the fee could be automatically charged to the applicant's telephone account.

In another embodiment, the method and system of the present invention is used to improve the security associated with the issuance of documents that are used for other purposes but have an identification function. For example, new credit cards are generally sent to users through the postal system and if intercepted, the card may be fraudulently used. This is particularly the case where the card has a portion for a user's signature which is blank at the point of issuance. Of course, if intercepted, a fraudulent user can simply sign the blank portion with the user's name and commence using the card to access the legitimate owner's credit account.

Attempts have been made to reduce the possibility of fraudulent interception and use of documents such as credit cards by requiring users to activate the card by calling an operator and providing some personal detail. However, the call to the operator may be placed from any telephone and the
5 detail required about the legitimate user is usually relatively easy to obtain from publicly available records (eg birth date).

As will be recognised from the foregoing description, when the method and system of the present invention is used in relation to the issuance of documents such as credit cards or cash access cards, there is a significant improvement with
10 respect to the level of confidence on the part of the issuing authority that the card has been activated by the intended recipient.

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A method for enabling a user to effect an action with respect to records pertaining to an identification document or document that has an identification function, including the steps of:
 - 5 associating a telephone number with the document;
the user establishing a communications link which identifies the telephone number;
verifying that the telephone number with which the communications link is established corresponds with the telephone number associated with the
10 document; and
enabling the user to effect an action with respect to the records pertaining to the document only if the verification is successful.
2. A method according to claim 1 including the additional step of associating a personal identification number with the document and subsequent to verifying
15 that the telephone number with which the communications link is established corresponds with the telephone number associated with the document, receiving a personal identification number from the user and only enabling the user to effect an action with respect to the records pertaining to the document if the verification is successful and the personal identification number received from the user
20 corresponds with the personal identification number associated with the document.
3. A method according to either claim 1 or claim 2 including the additional step of associating a document number with the document and subsequent to verifying that the telephone number with which the communications link is
25 established corresponds with the telephone number associated with the document, receiving a document number from the user and only enabling the user to effect an action with respect to the records pertaining to the document if the verification is successful and the document number received from the user corresponds to the document number associated with the document.

4. A method according to any one of the preceding claims wherein the verification that the telephone number with which the communications link is established is effected by using a calling line identification service.
5. A method according to any one of claims 1 to 3, wherein the verification that the telephone number with which the communications link is established corresponds with the telephone number associated with the document is effected by using a calling number display service.
6. A method according to any one of claims 1 to 3, wherein the verification that the telephone number with which the communications link is established corresponds with the telephone number associated with the document is effected by disconnecting the initial call by the user and placing a call to the user wherein the call to the user is based upon information obtained from a calling line identification or calling number display service.
7. A method according to claim 6 wherein prior to disconnecting the initial call from a user, the user is provided with a temporary code and upon placing a call to the user, the temporary code is requested, and successful verification only occurs when the correct temporary code is provided by the user.
8. A method according to any one of the preceding claims including the step of the issuing authority of a document obtaining the telephone number of a user at the time the user applies for a document thus enabling the issuing authority to associate the user's telephone number with the document.
9. A method according to any one of claims 1 to 8 including the step of the issuing authority of a document obtaining personal details of the user at the time the user applies to the issuing authority for the document and from those personal details the issuing authority establishing a telephone number for the user thus enabling the issuing authority to associate a telephone number with the document.

10. A method according to any one of the preceding claims wherein the telephone number associated with the document corresponds to a user's home telephone number.
11. A method according to any one of claims 1 to 10 wherein the telephone
5 number associated with a document is a user's mobile telephone number.
12. A method according to any one of claims 1 to 10 wherein the telephone number associated with a document is a user's business telephone number.
13. A method according to any one of claims 1 to 10 wherein the telephone
10 number associated with the document is a telephone number corresponding to a trusted friend or relative of a user.
14. A method according to any one of the preceding claims including the step of the issuing authority of a document obtaining a personal identification number from a user at the time the user applies to the issuing authority for a document.
15. A method according to any one of the preceding claims including the step
15 of the issuing authority of a document selecting a personal identification number for a user and communicating same to the user independently of the transmission of the document.
16. A method according to any one of claims 2 to 5 including the step of the user changing the personal identification number associated with their document.
- 20 17. A method according to any of the preceding claims wherein a verification server is connected to a telephony network and the step of establishing a communications link includes the user dialling a telephone number that connects the user's telephone to the verification server.
- 25 18. A method according to any of the preceding claims including the step of recording details relating to an attempt to effect an action with respect to records

pertaining to an identification document or document that has an identification function in the event that verification is unsuccessful.

19. A method according to claim 19 including the step of the issuing authority receiving a report of a failed verification thus enabling the issuing authority to take
5 appropriate action with respect to the relevant document for which an action was attempted to be effected.

20. A method according to any one of the preceding claims wherein the action that is effected with respect to records pertaining to an identification document or document that has an identification function includes at least any one or more of
10 the following:

validating the document;
cancelling the document; or
reinstating the document.

21. A method according to any one of the preceding claims including the step
15 of transmitting a document to an intended recipient with the document initially invalid for use.

22. A method according to any one of the preceding claims wherein an entity independent of the issuing authority of a document receives calls from users seeking to effect an action with respect to the records pertaining to a document
20 the method including the additional step of the entity transmitting the telephone number and/or any other information to the issuing authority and receiving an indication as to whether the verification has been successful.

23. A method according to claim 22 including the additional step of the entity receiving a request to effect an action from a user, transmitting said request to the
25 issuing authority and receiving a response from the issuing authority indicating whether or not the attempt to effect the action has been successful or otherwise.

24. A system for enabling a user to effect an action with respect to records pertaining to an identification document or document that has an identification function, including:

a network, within which the user is able to establish a communications link;

5 identifying means for identification of the telephone number with which a communications link is established;

verifying means for verification that said telephone number corresponds with a telephone number associated with the document; and

10 means for enabling the user to effect an action with respect to records pertaining to the document only upon successful verification that the telephone number verified by the verification means corresponds with the telephone number identified as the number with which a communications link was established.

25. A system according to claim 24 wherein the means for identifying the telephone number includes any one or more of the following:

15 a calling line identification service;
calling number display service; or
a call back service.

26. A system according to either claim 24 or claim 25 including a means for obtaining a personal identification number from a user over the communications
20 link and a means for verifying that the personal identification number obtained from the user corresponds with a personal identification number previously associated with the document.

27. A system according to any one of claims 24 to 26 including a verification server connected to the communications network such that the communications
25 link established by the user connects the user's telephone to the verification server.

28. A system according to claim 27 wherein the verification server includes an interactive voice response gateway thus enabling the system to prompt users for relevant information and receive that information in response to the prompts.

29. A system according to any one of claims 24 to 28 wherein the verification server includes a database containing records including telephone numbers associated with documents for the purpose of verifying the originating telephone numbers of incoming connections.

- 5 30. A system according to any one of claims 24 to 29 wherein the verification server is operable to create an electronic connection with a database maintained by an issuing authority of a document.

31. A system according to claim 30 wherein the means for identifying that said telephone number corresponds with the telephone number associated with the document and the means for verifying that said personal identification number corresponds with a personal identification number associated with the document includes computer program code operable to open a connection to the issuing authority database to request verification that the telephone number identified from the users establishment of a communications link and the personal identification number obtained from the user over the communications link correspond with the numbers associated with the document according to the issuing authority's database.
- 10 15

32. A system according to claim 31 wherein the computer program code is further operable to receive a response from an issuing authority's database indicating whether the telephone number and personal identification numbers obtained from a user are valid or invalid.
- 20

33. A system according to any one of claims 24 to 32 wherein the means for enabling the user to effect an action includes computer program code operable to provide a user with a menu of numbered options to access available actions.

- 25 34. A system according to claim 33 wherein the menu presented to a user is presented by a synthesised voice, the computer program code further operable to enable the user to effect the desired action by entering a number corresponding to the desired action by selection of the appropriate touch-tone key of a telephone handset.

35. A system according to claim 34 wherein the computer program code is further operable to establish a connection with an issuing authority's database and to transmit a request to effect an action selected by a user to said database, said computer program code also operable to receive a response from the issuing
5 authority database indicating whether the attempt to effect the action has been successful or otherwise.

36. A method for enabling a user to effect an action with respect to records pertaining to an identification document or document that has identification function, including the steps of:
10 establishing a communications link; and
transmitting an instruction to effect an action with respect to records pertaining to the document over the communications link;
wherein the establishment of the communications link identifies the telephone number from which the link is established at the receiving end of said
15 communications link, and wherein the user is only permitted to effect an action with respect to records pertaining to the document if the telephone number corresponds with a telephone number previously associated with the document.

37. A method according to claim 36 wherein a personal identification number is also associated with a document the method including the additional step of
20 obtaining a personal identification number from a user and transmitting same over the communications link and only allowing the instructions to effect an action to occur if the transmitted personal identification number corresponds to the personal identification number previously associated with the document.

38. A method for enabling a user to effect an action with respect to records
25 pertaining to an identification document or document that has an identification function, including the steps of:
receiving credentials of the user including the telephone number from which the user has established a communications link; and

authorising the user to effect an action with respect to the document only if the telephone number from which the communications link is established corresponds with a telephone number previously associated with the document.

39. A method according to claim 38 including the additional step of associating
5 a personal identification number with a document and obtaining from the user over the communications link a personal identification number and only effecting an action requested by a user when the personal identification number obtained from the user corresponds with the personal identification number previously associated with the document.

10 40. A system or method according to any one of the preceding claims wherein the document has its own identification means and includes any one or more of the following:

Passport;
Credit Card;
15 Cash Access Card;
EFTPOS Card;
Transaction Card;
Pilots License;
Driver's License;
20 Health Care Card;
Boat License; or
Area access Card.

41. A method according to any one of claims 1, 36 or 38 substantially as hereinbefore described with reference to the accompanying figures.

25 42. A system according to claim 24 substantially as hereinbefore described with reference to the accompanying figures.

30

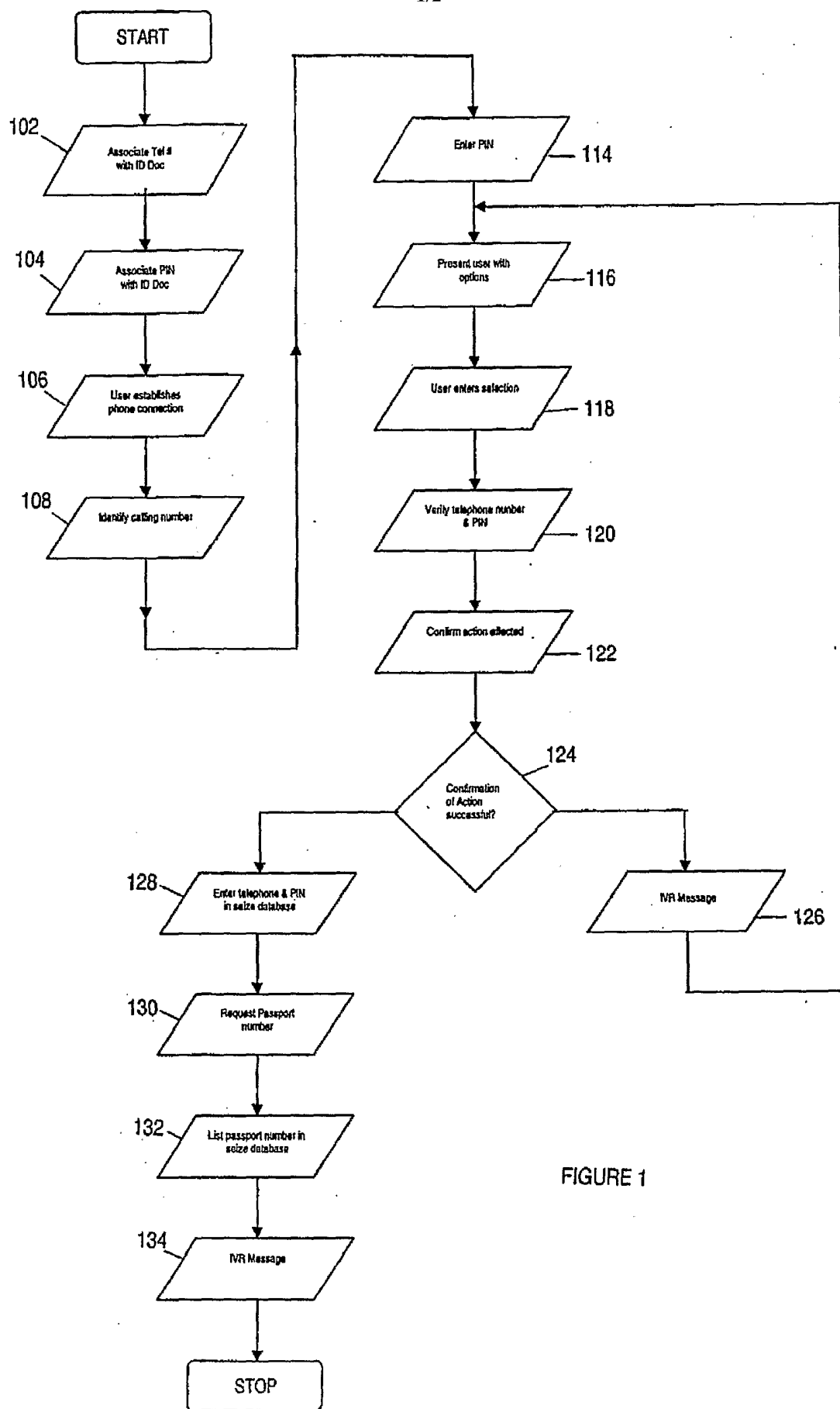


FIGURE 1

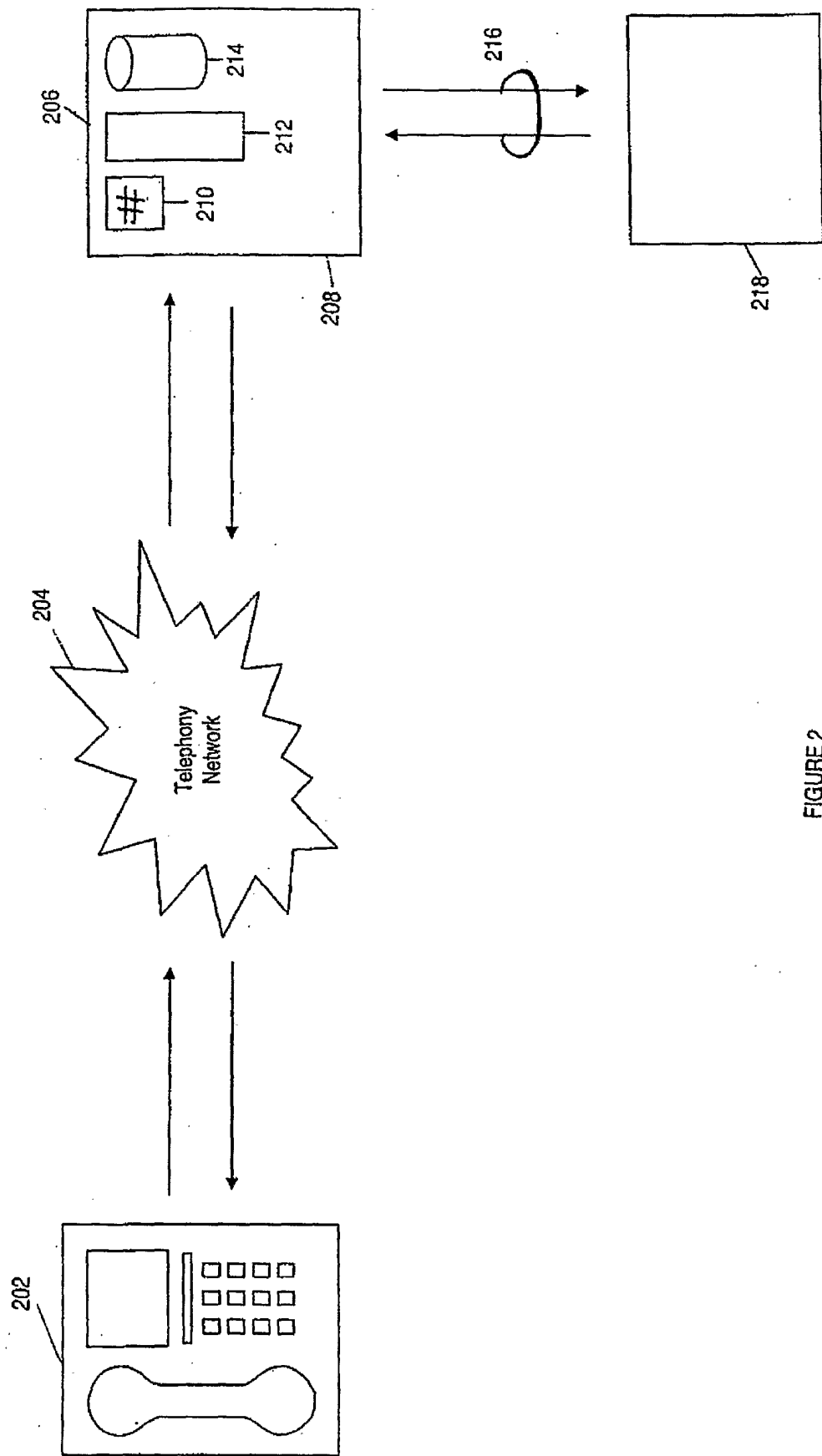



FIGURE 2

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2004/001166

A. CLASSIFICATION OF SUBJECT MATTER		
Int. Cl. ⁷ : B42D 15/10		
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) DWPI and keywords: passport and verify and telephone and number 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.
X	US 2003/0137146 A1 (WASHINGTON) 24 July 2003 Paragraph 13	1-40
A	JP 2000-050037 A (NEC SHIZUOKA LTD) 18 February 2000 Abstract	
A	US 5539819 A (SONOYAMA et al.) 23 July 1996 Whole document	
A	US 5802156 A (FELGER) 1 September 1998 Column 4 lines 34 to 45	
<input type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex		
<p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"I" 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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> <p>"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</p> <p>"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</p> <p>"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</p> <p>"&" document member of the same patent family</p>		
Date of the actual completion of the international search 14 October 2004		Date of mailing of the international search report 28 OCT 2004
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929		Authorized officer  DAVID MELHUISE Telephone No : (02) 6283 2426

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU2004/001166

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	2003137146	NONE					
JP	2000-50037	NONE					
US	5539819	JP	7087234				
US	5802156	CA	2390494	EP	1228493	US	5894510
		US	5933480	US	5960069	US	6282276
		US	6553108	US	2003195846	US	2003195847
		US	2003195848	WO	01/33520		
Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.							
END OF ANNEX							