**Title**

A METHOD AND SYSTEM FOR ASSIGNING AND CUSTOMISING HOSTED NETWORK RESOURCES

**International Patent Classification(s)**

- G06F 17/30 (2006.01)
- H04W 12/00 (2009.01)
- G06Q 30/06 (2012.01)

**Application No:** 2014100210  
**Date of Filing:** 2014.03.06

**Priority Data**

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013901887</td>
<td>2013.05.27</td>
<td>AU</td>
</tr>
<tr>
<td>2013900775</td>
<td>2013.03.06</td>
<td>AU</td>
</tr>
</tbody>
</table>

**Publication Date:** 2014.04.17  
**Publication Journal Date:** 2014.04.17  
**Granted Journal Date:** 2014.04.17

**Applicant(s)**

QRORB PTY LTD

**Inventor(s)**

DIMOVSKI, MARJANCO

**Agent / Attorney**

AJ PARK, L 11 60 Marcus Clarke St, Canberra, ACT, 2601
ABSTRACT
The invention provides a method of customising a hosted network resource comprising generating a machine readable code that is machine readable for accessing a network resource hosted by a network resource hosting service; providing the code on a code bearing medium; and assigning the network resource to a user responsive to the code being registered with the network resource hosting service, such that once assigned the user is provided with access and/or modification privileges to customise the network resource. The invention further provides a method of providing information relating to a consumer product, a method of providing digital information relating to an item, and related systems.
A METHOD AND SYSTEM FOR ASSIGNING AND CUSTOMISING HOSTED NETWORK RESOURCES

Technical Field

The present invention relates to systems and methods for customising network resources and more particularly, but by no means exclusively, to systems and methods for customising network resources utilising machine readable codes.

Background

Asset management is a difficult problem for individuals, households, businesses, corporate and enterprises alike. Protecting, recovering and managing valuable assets is beyond the capability of many organisations.

With a global population that is growing, modern day lifestyles that are busier, and valuable items that are smaller, there is an increasing number of lost goods. The Police service, transport hubs and retail outlets are having to deal with and increasing amount of lost or misplaced items that cannot be traced to their owners.

Manufacturers, retailers and collectors can sometimes have difficulty gaining consumer confidence that a product is genuine. Traders in used goods face the same problem of establishing clear title. It is vital that such organisations are able to gain consumer confidence in relation to authenticity and ownership.

Machine readable codes in the form of QR codes (an abbreviation for Quick Response Code) are optical machine readable codes that can be used to encode a URL of a network resource, such as a web page. The codes can be scanned by a smartphone for accessing the network resource. Other forms of machine readable codes and code bearing media include a near field communication (NFC) identifier on a chip or an alphanumeric string on a printed label or presented on a computer display.

It is an object of preferred embodiments of the present invention to address some of the aforementioned disadvantages. An additional or alternative object is to at least provide the public with a useful choice.

Summary of the Invention

In one aspect of the present invention there is provided a method of customising a hosted network resource, comprising generating a machine readable code that is machine readable for accessing a network resource hosted by a network
resource hosting service; providing the code on a code bearing medium; and assigning the network resource to a user responsive to the code being registered with the network resource hosting service, such that once assigned the user is provided with access and/or modification privileges to customise the network resource.

The term ‘comprising’ as used in this specification means ‘consisting at least in part of’. When interpreting each statement in this specification that includes the term ‘comprising’, features other than that or those prefaced by the term may also be present. Related terms such as ‘comprise’ and ‘comprises’ are to be interpreted in the same manner.

Preferably the network resource is a web site and the code encodes a URL for the site.

Preferably the machine readable code is an optical machine readable code.

Preferably the machine readable code is a QR code operable to direct a browser of a user computing device to the web site.

Preferably the machine readable code is a bar code operable to direct a browser of a user computing device to the web site.

Preferably the machine readable code is an alphanumeric code.

Preferably the machine readable code is configured to be transmitted using wireless technology.

Preferably the wireless technology includes near field communication.

Preferably the step of registering the code comprises the user providing registration information to the network resource hosting service via an online registration page.

Preferably the method further comprises initially configuring the network resource such that the online registration page is presented automatically to a requesting browser responsive to the network resource hosting service determining that the network resource has yet to be assigned to a user.
Preferably the method further comprises providing an online login page allowing the user to enter a unique identifier associated with the code for accessing the online registration page associated with the network resource.

Preferably the method further comprises providing the unique identifier in association with or on the code bearing medium.

Preferably the code bearing medium is provided in packaging which at least partially obscures the code and/or unique identifier.

Preferably the step of customising the network resource comprises programming the network resource to provide information relevant to the code bearing medium or an object to which it is attached, the information being uploaded by the user.

Preferably the method further comprises serving a private identification page to the user responsive to the user requesting access to the hosted network resource through scanning the code, once the code has been registered with the network resource hosting service.

Preferably the method further comprises serving a public page to a different user attempting to access the hosted network resource through scanning the code, once the code has been registered with the network resource hosting service.

Preferably the method further comprises allowing the different user to upload feedback information to the network resource by way of the public page.

Preferably the method further comprises allowing the user to determine what uploaded information to display on the public and/or private page as part of the customisation of the hosted network resource.

Preferably the code bearing medium is a label.

Preferably the label comprises a surface for adhering to the object.

Preferably the code bearing medium comprises a coupling arrangement for coupling to the object.
Preferably the method further comprises allowing an initial user to upload initial information for storing in association with the network resource prior to the network resource being subsequently assigned to the user.

Preferably the object is a consumer product and wherein the initial information is related to the consumer product.

Preferably the code bearing medium is provided on the consumer product prior to offering the product for sale to the user.

Preferably the method further comprises assigning access privileges for the hosted network resource such that the initial user is provided with different access and/or modification privileges to the network resource than for the subsequently assigned user.

Preferably the access privileges are assigned such that the user is unable to modify information entered by the initial user in association with the network resource.

Preferably the initial user is a manufacturer of the consumer product and the initial information comprises warranty related information associated with the consumer product.

Preferably the method further comprises allowing a second initial user to provide further initial information associated with the network resource, such that the further initial information can only be provided after the initial user has uploaded the initial information.

Preferably the further initial user is a retailer and wherein the further initial information comprises retail related information associated with the product.

Preferably the method further comprises configuring the network resource to display the retail related information responsive to a request to access the network resource through scanning the code, prior to the network resource being assigned.
Preferably the method further comprises assigning the hosted network resource to the user responsive to the user purchasing the consumer product.

Preferably the retailer is authorised to assign the hosted network resource by uploading a proof of purchase.

Preferably the network resource is configurable so as to cause an alert notification to be sent to the user at a particular time.

In a further aspect of the present invention there is provided a method of providing information relating to a consumer product, comprising generating a machine readable code associated with a configurable network resource; providing the machine readable code on a consumer product; allowing at least one pre-sale user to pre-configure the configurable network resource by uploading requisite information associated with the product, at least some of the requisite information comprising consumer related information; and once the requisite information has been uploaded, further configuring the network resource such that any requests by a non pre-sale user to access the network resource results in the serving of a consumer page displaying at least a subset of the consumer related information.

Preferably the method further comprises determining a user identifier provided in a request to access to the network resource and determining that the requestor is a non pre-sale user if the determined identifier identify does not match an identifier stored for each of the at least one pre-sale users.

Preferably there are a plurality of pre-sale users provided with access and/or modification privileges to pre-configure the configurable network resource, the method further comprising assigning access privileges thereto such at least one of the plurality of pre-sale users is unable to modify and/or view information provided by another of the pre-sale users.

Preferably the method further comprises assigning the network resource to a purchaser of the saleable product and wherein the method further comprises uploading requisite purchaser related information to the network resource.
Preferably the method further comprises allowing the network resource to be configured such that the purchaser related information is unable to be modified by the purchaser, once the network resource has been assigned thereto.

Preferably the method further comprises maintaining a record of each user who uploaded information to the network resource and/or placed a request to access the network resource.

Preferably the method further comprises configuring the network resource such that different pages displaying different uploaded information are served to requesting users depending on an identity thereof.

Preferably the network resource is hosted by an independent network resource hosting service.

Preferably the method further comprises selling the code to one of the one or more pre-sale users, such that the hosted network resource derives some revenue through the sale of the code.

In a further aspect of the present invention there is provided a method of providing digital information relating to an item, comprising generating a machine readable code which is utilisable to access a network resource hosted by a network resource hosting service; permitting a user to register the code, such that once registered the user is allowed to upload information relating to the item in association with the hosted network resource, the information being uploaded by way of a preconfigured upload template; and providing at least a subset of the uploaded information to another user attempting to access the network resource through scanning of the code.

In a further aspect of the present invention there is provided a system for providing configurable network resources, comprising a network resource hosting service operable to host an assignable network resource; a code generating module operable to generate optical machine readable code encoding an address of the network resource, the code being provided on a code bearing medium for provision to a user, wherein the network resource hosting service is operable to assign the network resource to the user responsive to the user registering the code with the network
resource such that once assigned the user is provided with access and/or modification privileges to configure the network.

In a further aspect of the present invention there is provided a system for customising a hosted network resource, the system comprising at least one server comprising at least one processor configured to execute computer executable instructions; and at least one computer readable storage medium storing the computer executable instructions that when executed by the at least one processor cause the at least one processor to: generate a machine readable code that is machine readable for accessing a network resource hosted by a network resource hosting service; and assign the network resource to a user responsive to the code being registered with the network resource hosting service, such that once assigned the user is allowed provided with access and/or modification privileges to customise the network resource.

Further described is a system for providing information relating to a consumer product, the system comprising at least one server comprising at least one processor configured to execute computer executable instructions; and at least one computer readable storage medium storing the computer executable instructions that when executed by the at least one processor cause the at least one processor to: generate a machine readable code associated with a configurable network resource for provision on a consumer product; allow at least one pre-sale user to pre-configure the configurable network resource by uploading requisite information associated with the product, at least some of the requisite information comprising consumer related information; and once the requisite information has been uploaded, further configure the network resource such that any requests by a non pre-sale user to access the network resource results in the serving of a consumer page displaying at least a subset of the consumer related information.

Further described is a system for providing digital information relating to an item, the system comprising at least one server comprising at least one processor configured to execute computer executable instructions; and at least one computer readable storage medium storing the computer executable instructions that when executed by the at least one processor cause the at least one processor to: generate a machine readable code which is utilisable to access a network resource hosted by a network resource hosting service; permit a user to register the code, such that once registered the user is allowed to upload information relating to the item in association
with the hosted network resource, the information being uploaded by way of a
preconfigured upload template; and provide at least a subset of the uploaded
information to another user attempting to access the network resource through
scanning of the code.

Further described is a computer readable medium on which is stored computer
executable instructions that, when executed by at least one processor, cause the at
least one processor to generate a machine readable code that is machine readable for
accessing a network resource hosted by a network resource hosting service; and
assign the network resource to a user responsive to the code being registered with the
network resource hosting service, such that once assigned the user is allowed
provided with access and/or modification privileges to customise the network
resource.

Further described is a computer readable medium on which is stored computer
executable instructions that, when executed by at least one processor, cause the at
least one processor to generate a machine readable code associated with a
configurable network resource for provision on a consumer product; allow at least one
pre-sale user to pre-configure the configurable network resource by uploading
requisite information associated with the product, at least some of the requisite
information comprising consumer related information; and once the requisite
information has been uploaded, further configure the network resource such that any
requests by a non pre-sale user to access the network resource results in the serving
of a consumer page displaying at least a subset of the consumer related information.

Further described is a computer readable medium on which is stored computer
executable instructions that, when executed by at least one processor, cause the at
least one processor to generate a machine readable code which is utilisable to access
a network resource hosted by a network resource hosting service; permit a user to
register the code, such that once registered the user is allowed to upload information
relating to the item in association with the hosted network resource, the information
being uploaded by way of a preconfigured upload template; and provide at least a
subset of the uploaded information to another user attempting to access the network
resource through scanning of the code.

The term "connected to" includes all direct or indirect types of communication,
including wired and wireless, via a cellular network, via a data bus, or any other
computer structure. It is envisaged that they may be intervening elements between the connected integers. Variants such as "in communication with", "joined to", and "attached to" are to be interpreted in a similar manner.

5

The invention in one aspect comprises several steps. The relation of one or more of such steps with respect to each of the others, the apparatus embodying features of construction, and combinations of elements and arrangement of parts that are adapted to affect such steps, are all exemplified in the following detailed disclosure.

10

This invention may also be said broadly to consist in the parts, elements and features referred to or indicated in the specification of the application, individually or collectively, and any or all combinations of any two or more said parts, elements or features, and where specific integers are mentioned herein which have known equivalents in the art to which this invention relates, such known equivalents are deemed to be incorporated herein as if individually set forth.

15

In addition, where features or aspects of the invention are described in terms of Markush groups, those persons skilled in the art will appreciate that the invention is also thereby described in terms of any individual member or subgroup of members of the Markush group.

As used herein, ‘(s)’ following a noun means the plural and/or singular forms of the noun.

25

As used herein, the term ‘and/or’ means ‘and’ or ‘or’ or both.

It is intended that reference to a range of numbers disclosed herein (for example, 1 to 10) also incorporates reference to all rational numbers within that range (for example, 1, 1.1, 2, 3, 3.9, 4, 5, 6, 6.5, 7, 8, 9, and 10) and also any range of rational numbers within that range (for example, 2 to 8, 1.5 to 5.5, and 3.1 to 4.7) and, therefore, all sub-ranges of all ranges expressly disclosed herein are hereby expressly disclosed. These are only examples of what is specifically intended and all possible combinations of numerical values between the lowest value and the highest value enumerated are to be considered to be expressly stated in this application in a similar manner.
In this specification where reference has been made to patent specifications, other external documents, or other sources of information, this is generally for the purpose of providing a context for discussing the features of the invention. Unless specifically stated otherwise, reference to such external documents or such sources of information is not to be construed as an admission that such documents or such sources of information, in any jurisdiction, are prior art or form part of the common general knowledge in the art.

Although the present invention is broadly as defined above, those persons skilled in the art will appreciate that the invention is not limited thereto and that the invention also includes embodiments of which the following description gives examples.

**Brief Description of the Drawings**

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

- Figure 1 is a schematic diagram of a system for providing customisable network resources;

- Figures 2 and 3 outline steps in methods of operating the system of figure 1;

- Figure 4 shows an example screen shot of a web page for registration;

- Figure 5 is an example screen shot of a web page for uploading information for display on the network resource particularly for creating a new data record;

- Figures 6A and 6B show an example screen shot of a webpage for editing information representing an asset;

- Figures 7 and 8 are example screen shots displaying inventory related information as customised using the system of figure 1;

- Figure 9 shows an example screen shot displaying a lost and found feature;

- Figure 10 is a process flow in accordance with an alternative embodiment of the present invention; and
Figure 11 shows a simplified block diagram of a device forming at least part of a computing device in accordance with the invention.

**Detailed Description of the Preferred Embodiment**

Referring to figure 1 there is shown a system 1 for providing customisable network resources hosted by a network resource hosting service 10. More particularly a first embodiment involves generating a unique machine readable code 12 which points to a URL of a pre-configured network resource hosted by the hosting service 10. The code 12 is subsequently printed or otherwise provided on a code bearing medium 14 for distribution to a user 16.

The user 16 registers the code with the network resource hosting service 10 in order to have the corresponding network resource assigned to them for subsequent customisation. Once assigned, the user 16 can upload information relating to an item 15 that they wish to identify.

The code 12 is then affixed to the relevant item and can thereafter be read by a suitable machine reader for pointing to a web page which provides the uploaded information relating to the item. In a particular embodiment, rather than displaying a web page the network resource hosting service may be configured to provide the information for display within a mobile application (e.g. scanning software application loaded on the device).

The following example embodiment is described in the context of a system and method for providing identification information for tracking an object of value. According to this example, the machine readable code comprises an optical machine readable code in the form of a barcode or QR code 12. The QR code 12 encodes the URL of a partially pre-configured web page that has yet to be assigned to a user. The QR code 12 is readable by a device in the form of a smartphone 17 for directing a browser resident on the smartphone 17 to the corresponding URL.

In more detail, the network resource hosting service 10 comprises a networked server computer 11 running suitably configured software. The server computer 11 is connected to the internet 100 by way of which users can access the hosted web pages. The server computer 11 includes a processor 20 which in turn implements a hosting module 22 operable to host the pre-configured web pages that are assignable to users for subsequent customisation.
The server computer 11 in the form of a hosting server also implements a data storage means in the form of a database 30 (such as implemented by a Microsoft SQL database server) which stores customisation data used to customise web pages that have been assigned to users. The customisation data (in the presently described embodiment being in the form of tracking information relevant to the object of value) is stored in the database 30 in association with a unique identifier for the corresponding web page.

The processor 20 of the hosting server 11 is additionally operable to implement a code generating module 24 which is operable to generate the machine readable codes which identify the partially pre-configured web pages hosted by the server 11.

According to the illustrated embodiment, the URL is encoded into a QR code using techniques well understood in the art. A code printing apparatus 40 is operable to print the QR codes generated by the code generating module 24 on a physical code bearing medium, for subsequent distribution to users (e.g. through a retail outlet, or the like).

While the illustrated embodiment shows the printing apparatus 40 being operated directly by the hosting service 10, it will be understood that this is not essential. For example, in an alternative embodiment, the printing apparatus 40 could be implemented by a third party service provider. The third party service provider may, for example, implement a networked computer for receiving code printing instructions from the code generating module 24 over the network, as required.

The printing apparatus 40 could be configured to print the codes 12 on any suitable code bearing medium, depending only on the desired implementation. According to the presently described embodiment the codes 12 are printable on code bearing media in the form of labels for affixing to the objects. The labels may, for example, be sticky labels, iron-on labels, or indeed may comprise any suitable label or tag for affixing or otherwise coupling to the object.

The printed codes 12 can be distributed in packaging which at least partially obscures the codes so that they cannot be activated until they have been purchased or otherwise distributed to a user.
Further, a unique identifier for the code 12 may additionally be provided in association with the code (e.g. printed on a sheet located within the packaging, or on the label itself) for use by the user when registering the code, as will be described in more detail in subsequent paragraphs. Again, the unique identifier may be obscured by the packaging to prevent registration of the code until it has been allocated/sold.

Also shown in Figure 1 is a code reading device 18 in the form of an Internet enabled smart phone having a camera for capturing an image of the code 12 and which implements suitable software (in this case QR code reading software) for decoding the captured image and directing a browser resident thereon to access the corresponding URL.

According to the illustrated embodiment, the device 18 connects to the hosting service 10 via a mobile network coupled to the Internet 100 (to which the service 10 is in turn connected).

It will be understood that any suitable code reading device implementing a browser or app could equally be utilised for reading the code. The code reading device in an embodiment comprises a general-purpose programming device such as a desktop, laptop, tablet, or smart phone. In an embodiment, the devices operate under control of respective client modules to perform the techniques described herein. Client modules preferably comprise computer-executable instructions that cause computing devices to perform various functions.

In an embodiment, the machine readable code in an embodiment is configured to be transmitted using wireless technology. Examples of suitable wireless technology include near field communication (NFC), RFID and/or Bluetooth.

In a particular embodiment the URL may be encoded by an RFID tag which is readable by an NFC reader on the device 18. According to another example embodiment, the URL may be encoded in barcode format and readable by a suitable barcode scanner. Indeed the URL code be encoded in any suitable code format that is machine readable for directing a browser of a computing device (or a software application residing thereon) to access the customisable network resource.

In an embodiment the machine readable code comprises a human readable alphanumeric string. The code printing apparatus 40 is configured to generate a
random sequence of letters, numbers and symbols. The preferred form alphanumeric string includes a mix of upper case and lower case letters. The preferred form string preferably has a length of at least 22 characters. An example machine readable code is 'K4ajVFtaOEm0x_8-CyilMQ'.

The code bearing medium in an embodiment includes more than one machine readable code. The code bearing medium for example may include an optical machine readable code in the form of a QR code, a machine readable code in the form of an NFC chip, a human readable code in the form of an alphanumeric string, any combination of 2 of the foregoing, or each of the foregoing.

Referring to figure 2, a method of registering a code using system 1 will now be described. By way of example, the user 16 has purchased the code 12 from a retail store and has subsequently affixed to their bicycle. The user 16 wants to upload personal contact information to the corresponding hosted network resource, such that a subsequent scan of the code 12 will direct a scanning device to a web page displaying their details in the event that the bicycle is lost or stolen.

At step 101, the user 16 interacts with a registration page provided by server 11 to register the purchased code 12. The registration page is accessible either by navigating to a registration webpage of the hosting server 11 and entering the unique code identifier provided with the code packaging, or by scanning the code 12 using their smartphone 18 (in which case the hosting server 11 recognises that the URL requested by the smartphone browser has yet to be assigned and automatically routes the browser to the registration webpage).

This determination may be achieved, for example, by inspecting the database to determine whether any customisation information has been stored in association with the unique code/URL. Thereafter, the user 16 enters 102 mandatory registration information, for example their name, a contact e-mail, and/or any other information required by the hosting service 10. The registration information is subsequently stored in the database 30 in association with the code identifier/URL.

At step 110, responsive to completing the mandatory registration information, the user is routed to a pre-configured customisation page (again provided by the hosting service 11) which prompts the user to enter web page customisation information. In a particular embodiment, the page is served to the user such that it
displays a customisation template which includes a number of mandatory fields for completing by the user in order to complete the customisation. With regards to the bicycle example, the template may require the user to complete the following fields: owner name, owner contact phone number, owner contact address, serial number or any other information deemed mandatory. It will be appreciated that the fields required to be completed by the user may vary depending on the particular implementation. In a particular embodiment, the user may be allowed to upload a picture, video and/or audio for displaying/playing on the web page. In a particular embodiment, the user may be required to specify the purpose of the customisation during registration, responsive to which a corresponding pre-configured template is presented to the user which includes fields for uploading information relevant to the specified purpose. Some examples are outlined below:

- For use in identifying lost or stolen items of value, such as electrical goods, collectibles, tools, etc. whereby the pre-configured template would ask the user to enter or upload unique identifiers or descriptors of those goods, such as serial numbers, pictures, etc. Some examples are shown in Figures 5 and 6 whereby users have entered information (via the template) relating to items of value in the form of keys and a pet.

- For warranty purposes whereby the template asks the user to enter relevant warranty information (which may subsequently be verified by a warranty provider), in which case the manufacturer or a repairer could scan the code to determine who the goods belong to and whether they are still within a warranty period.

- For training or safety purposes whereby the template would ask the user to enter the relevant safety/training information (e.g. the label could be affixed to a fire hydrant which could be subsequently scanned during an emergency to provide information on how to use the hydrant).

- For servicing purposes whereby the template would ask the user to enter relevant servicing information (e.g. date of last service, field notes, etc.) which information could only thereafter be updated by a user who had relevant access privileges (e.g. by entering a password or the like which is stored by the third party hosting service).

In a particular embodiment, the user may also be allowed to choose a design for the webpage (e.g. from a list of selectable page designs). The customisation information is stored in the database in association with the code identifier.
With reference to Figure 3 there is shown a process flow for reading a code 12 post registration.

At step 201 a person (which could be user 16, or any other person) scans the code 12 using their smartphone 17 which in turn causes the smartphone browser to request a hosted page at the URL encoded by the code 12.

At step 210, the hosting server 11 processes the browser request and inspects the database 30 to determine whether any customisation information has been stored in association with the requested URL. At step 212, responsive to making a positive determination, the customisation data is provided to the hosting module 22 which packages the information into a page (in any particular format specified by the user) for serving to the requesting browser at step 214.

Figure 4 shows an example screen shot of a page displayed to a user operating a computing device. It will be appreciated that the page is rendered by a browser or an app installed operating on the computing device.

As shown, a user is able to register with the website. Example fields presented to the user include Email, First Name, Last Name, Country, Password, Password confirmation, user Profile Picture, acknowledgement of terms and conditions, and a verification box.

Once the information is completed and submitted by the user, a record is created representing the user.

Figure 5 is an example screen shot of a page displayed to a user operating a computing device. The page permits a user to create a new record representing an asset. Once again, it will be appreciated that the page is rendered by a browser or an app installed and operating on the computing device.

As shown, the user enters a Status, Category, Item description, Item Type, and Serial number or Reference number. The reference number for example is a human readable code comprising an alphanumeric string. It will be appreciated that where the user has operated the code reading device 18 to obtain an optical machine readable code in the form of a QR code, or a machine readable code in the form of an NFC
code, the ID Name and/or reference fields of Figure 5 will be pre-populated with data associated to the obtained code(s).

Additional example fields presented to the user include Location, Estimated value, Reward value and a Description.

Figures 6A and 6B show an example screen shot of a page displayed to a user operating a computing device. The page permits a user to edit a record representing an asset. Once again, it will be appreciated that the page is rendered by a browser or an app installed and operating on the computing device.

The user from example is presented with fields for Status, Category, Item description, Item Type, and Serial number or Reference number. The reference number for example is a human readable code comprising an alphanumeric string. It will be appreciated that where the user has operated the code reading device 18 to obtain an optical machine readable code in the form of a QR code, or a machine readable code in the form of an NFC code, the ID Name and/or reference fields of Figure 5 will be pre-populated with data associated to the obtained code(s).

Additional example fields presented to the user include Location, Estimated value, Reward value and a Description.

There is preferably a mechanism to share a webpage or transfer a webpage.

Furthermore, the webpage in an embodiment includes features to add audio, add video and/or add a reminder.

Figure 7 shows an example screen shot displaying inventory related information about an asset. The data is entered by the user for example using the form displayed in Figures 5, and/or 6A and 6B. The ID name is 'keyring' representing an identifier that is recognisable to the user. The display also shows an image of the asset, Reference, Name, Email, Mobile, Location and Notes.

Figure 8 shows a further example screen shot displaying inventory related information about an asset. Once again the data has been entered by the user for example using the form displayed in Figures 5 and/or 6A and 6B. The ID Name in this case is a name given to the pet. There is also an image of the pet displayed. The
Reference shows the breed of dog. The owner details shown include Name, Email, Mobile, Location and Notes.

Figure 9 shows an example screen shot displaying a lost and found feature. The user is able, for example, to search a lost or stolen item by location. If the item is located within the system will, there is a facility to register the item as either lost or found.

A further embodiment of the invention will now be described with reference to the flow chart of Figure 10. The illustrated embodiment is particularly suited for implementation in a retail environment whereby any one or more parties in the retail chain can upload and access information relevant to a product carrying one of the machine readable codes 12.

The information may include, for example, warranty related information, product tracking/shipping related information, pricing information and any other information relevant to the product, depending on the desired implementation. According to the embodiment described herein, any party in the chain leading up to the consumer will hereafter be referred to as a “pre-sale” user.

The first step 1010 in the process flow of Figure 10 involves registering the machine readable codes by a first pre-sale user. In the example embodiment described herein, the first pre-sale user is a manufacturer of the consumer product who has registered a batch of machine readable codes 14 for affixing to their products (in this case being in the form of QR codes printed on sticky labels for adhering to the manufactured consumer products), in much the same manner as described in the preceding examples.

One or more of the machine readable codes 14 point to a URL of a customisable and pre-configured resource hosted and maintained by the network resource hosting service 10. It will be understood, however, that in an alternative embodiment the network resource may not be hosted by an independent hosting service 10 as described herein and instead could be hosted in a conventional form where the manufacturer pays for and maintains the resource.

At step 1012, the first pre-sale user is presented with a pre-sale page which has been pre-configured with upload fields relevant to the first pre-sale user, for
uploading particular consumer product related information. The first pre-sale user may access the pre-sale page either by scanning the code using a valid pre-sale user login (which they may have pre-registered with the network hosting service, e.g. when purchasing the set of codes), or by navigating to that page using the URL link provided with the code and entering their login details.

Upon receipt of the page request, the server matches the login details entered by the pre-sale user against validated login details stored in the database, and responsive to determining a match serves the pre-sale page (with the pre-configured fields) to the pre-sale user. The pre-configured fields may be for uploading certain mandatory consumer product related information. For example, the pre-sale page may ask the first pre-sale user to enter the product name, date of manufacture, serial number, shipping date, etc.

At step 1014, the consumer product is shipped to a second pre-sale user (in this case, a retailer) for sale. The second pre-sale user may upload additional consumer product related information (e.g. their details, the price, etc.) for storing in association with the network resource using the pre-sale page. The second pre-sale user may access the pre-sale user page in the same manner as for the first pre-sale user, however with a different login than for the first user.

In a particular embodiment the network resource may be pre-configured such that the retailer is presented with different upload fields to the first pre-sale user (as determined based on their login). For example, the pre-sale page served to the second pre-sale user may ask for different mandatory information to be uploaded by the second pre-sale user (e.g. price, store details, etc.). Further, depending on the desired page pre-configuration, the information uploaded by the first pre-sale user may or may not be visible to the second pre-sale user and vice-versa.

At step 1016, a non pre-sale user (e.g. a consumer) scans the code using their smartphone. The smartphone scanning software in turn sends a request to the server for accessing the corresponding URL. The server processes the request and responsive to determining that the request is originating from a non pre-sale user, is configured to serve the non pre-sale user with a public page associated with the network resource and which provides at least a subset of the information uploaded by one or more of the pre-sale users.
For example, the public page may display the price of the consumer product, but not the date on which the consumer product was shipped to the retailer. The public page may also be pre-configured such that it allows the non pre-sale user to upload feedback information which is communicable back to any selected presale user (e.g. via the pre-sale user page, or via some other suitable communication channel).

In a particular embodiment, the server determines that the request is originating from a non pre-sale user by establishing that it does not include valid (or any) pre-sale user login details.

In a particular embodiment, the network resource may be configurable to allow one or more of the users to set an alert relevant to the product. For example, where the product has an expiry or "use by" date, the manufacturer may configure the network resource to provide an alert which is issued to one or more downstream users (e.g. retailer, consumer, etc.) when accessing the network resource by way of a suitable reminder alert on the page they are served by the network resource hosting service. In addition, or as an alternative thereto, the hosting service may be operable to communicate with an e-mail or telephone/SMS messaging service for issuing the reminder to an address specified by the upstream user.

Thus, it will be appreciated that the above described example embodiment allows for all steps in a supply/retail chain to be readily monitored: the origin of raw materials, through to the manufacturing process, the logistics networks, into retail stores and, finally, onto the product destination. As the product moves through the chain, simple scans of the code may allow its digital presence to be viewed and updated in real-time. This in turn enables wholesalers and retailers alike to extend their reach – establishing a link between manufacturers directly with the end-consumer of the product, for further communication about warranty details, user guides etc.

Although the aforementioned example referred to two pre-sale users uploading information to the network resource, it will be understood that the network resource may be configurable to allow information uploads from any number of pre-sale users, with the number depending only on the desired implementation. For example, where the consumer product needs to be shipped and temporarily stored on route to the retailer, the network resource may be pre-configured to allow the shipping and warehouse handlers to access the pre-sale user page to upload relevant
storage/tracking information (e.g. warehouse location, date on which the product was shipped, etc.).

As an optional further step 111018, the hosted network resource is assigned to a particular end user (e.g. purchaser). According to the example embodiment described herein, this involves uploading end user contact and identification information for storing in association with the network resource. For example, the uploaded end user information (together with a proof of sale, if required) may be uploaded by the retailer when completing the sale using pre-configured fields provided on the pre-sale page presented to the retailer.

The server 11 is operable to process the uploaded information and in turn generate a unique login and password for communicating to the end user. The network resource may be further pre-configured such that any subsequent attempt to access the network resource by the end user (i.e. using the unique login/password) will cause a private page to be served to the end user displaying selected product information. For example, the private page may display warranty information, reward points, expiration dates, etc. The private page may be further configured to allow the end user to send feedback to any one of the upstream pre-sale users via the pre-sale user page and vice versa.

Thus, embodiments may advantageously allow the producer and consumer to communicate as needed. For example, producers can send consumers any specials or promotions related to their product. It becomes an on-going customer relationship that producers can tap into post sale.

It will be understood that the resource may be pre-configured by the first presale user (i.e. manufacture) or have a standard pre-configuration setup dictated by the network resource hosting service 10. Further it will be understood that any particular access privilege rules may be pre-configured, depending only on the desired implementation.

According to embodiments described herein the code is printed on a physical code bearing medium, although it will be understood that the code could equally be displayable on an electronic screen display.
In a particular embodiment, the network resource hosting service 10 is operable to provide a private and secure online space (hereafter “control centre”) which is accessible by users to access multiple network resources that have been assigned to them through code registration or otherwise. This self-managed control centre allows users to keep track of their assigned pages, news, reminders and correspondence with upstream/downstream providers. Users may access the control centre using a unique login and password.

In a particular embodiment, the network resource can be pre-configured or customised by an assigned user to expire after some desired time, such that once expired it is no longer accessible through scanning the corresponding code.

Figure 11 shows a simplified block diagram of a device forming at least part of a computing device described above. Computing devices include server computer 11, code reading device 18 and/or printing apparatus 40.

Sets of computer executable instructions are executed within device 1100 that cause the device 1100 to perform the methods described above. Preferably the computing device 1100 is connected to other devices. Where the device is networked to other devices, the device is configured to operate in the capacity of a server or a client machine in a server-client network environment. Alternatively the device can operate as a peer machine in a peer-to-peer or distributed network environment. The device may also include any other machine capable of executing a set of instructions that specify actions to be taken by that machine. These instructions can be sequential or otherwise.

A single device 1100 is shown in Figure 8. The term “computing device” also includes any collection of machines that individually or jointly execute a set or multiple sets of instructions to perform any one or more of the methods described above.

The example computing device 1100 includes a processor 1105. One example of a processor is a central processing unit or CPU. The device further includes read-only memory (ROM) 1110 and random access memory (RAM) 1115. Also included is a Basic Input/Output System (BIOS) chip 1120. The processor 1105, ROM 1110, RAM 1115 and the BIOS chip 1120 communicate with each other via a central motherboard 1125.
Computing device 1100 further includes a power supply 1130 which provides electricity to the computing device 1100. Power supply 1130 may also be supplemented with a rechargeable battery (not shown) that provides power to the device 1100 in the absence of external power.

Also included are one or more drives 1135. These drives include one or more hard drives and/or one or more solid state flash hard drives. Drives 1135 also include optical drives.

Network interface device 1140 includes a modem and/or wireless card that permits the computing device 1100 to communicate with other devices. Computing device 1100 may also comprise a sound and/or graphics card 1145 to support the operation of the data output device 1160 described below. Computing device 1100 further includes a cooling system 1150 for example a heat sink or fan.

Computing device 1100 includes one or more data input devices 1155. These devices include a keyboard, touchpad, touchscreen, mouse, and/or joystick. The device(s) take(s) input from manual keypresses, user touch with finger(s) or stylus, spoken commands, gestures, and/or movement/orientation of the device.

Data output device(s) 1160 include(s) a display and/or printer. Device(s) 1160 may further include computer executable instructions that cause the computing device 1100 to generate a data file such as a PDF file.

Data port 1165 is able to receive a computer readable medium on which is stored one or more sets of instructions and data structures, for example computer software. The software causes the computing device 1100 to perform one or more of the methods or functions described above. Data port 1165 includes a USB port, Firewire port, or other type of interface. The computer readable medium includes a solid state storage device. Where drives 1135 include an optical media drive, the computer readable medium includes a CD-ROM, DVD-ROM, Blu-ray, or other optical medium.

The term "computer-readable medium" should be taken to include a single medium or multiple media. Examples of multiple media include a centralised or distributed database and/or associated caches. These multiple media store the one or more sets of computer executable instructions. The term “computer readable medium”
should also be taken to include any medium that is capable of storing, encoding or
carrying a set of instructions for execution by a processor and that cause the
processor to perform any one or more of the methods described above. The computer-
readable medium is also capable of storing, encoding or carrying data structures used
by or associated with these sets of instructions. The term “computer-readable
medium” includes solid-state memories, optical media and magnetic media.

Software may also reside completely or at least partially within ROM 1110,
within erasable non-volatile storage and/or within processor 1105 during execution by
the computing device 1100. In this case ROM 1110 and processor 1105 constitute
computer-readable tangible storage media. Software may further be transmitted or
received over a network via network interface device 1140. The data transfer uses any
one of a number of well known transfer protocols. One example is hypertext transfer
protocol (http).

It can be seen that embodiments of the invention have at least one of the following
advantages:

* Assist in identifying lost property
* Reduce theft and resale of goods
* Assist users in storing information relevant to particular items (text, video,
audio, images or any suitable digital content) that can be readily accessed by
way of scanning a code affixed to the item
* Embodiments may reduce the overall volume of counterfeit products around
the world by simply and effectively allowing product authenticity to be
confirmed by way of a simple scan
* Increase consumer confidence in produce origin and quality, especially fruit and
meats, by allowing producers to provide consumers with information tracing
the lifecycle of the products to its creation.
* Reminder alerts can be set by the relevant user at the time of manufacture,
sales or even post sale (i.e. by the consumer). Reminders may be
advantageously set by an upstream user before an expiry of the associated
product with a notification sent automatically to any number of customers. In
addition, all details on file, warranty copies, user manuals, extended warranties
and additional information can be readily stored and provided with the
notification.
• Coded products that have been associated with a particular purchaser (particularly ones that have had the codes engraved or otherwise permanently affixed thereto) have the potential to reduce property theft. With the vision that most goods will be manufactured with an identity and page containing a history of ownership that is not erasable, it will make it harder to on-sell these goods to innocent consumers as now the system provides a way of checking the true owner.

10 Finally, it is to be appreciated that various alterations or additions may be made to the parts previously described without departing from the spirit or ambit of the present invention.
CLAIMS

1. A method of customising a hosted network resource, comprising:
   generating a machine readable code that is machine readable for accessing a
   network resource hosted by a network resource hosting service;
   providing the code on a code bearing medium; and
   assigning the network resource to a user responsive to the code being
   registered with the network resource hosting service, such that once assigned the user
   is provided with access and/or modification privileges to customise the network
   resource.

2. A method of providing information relating to a consumer product, comprising:
   generating a machine readable code associated with a configurable network
   resource;
   providing the machine readable code on a consumer product;
   allowing at least one pre-sale user to pre-configure the configurable network
   resource by uploading requisite information associated with the product, at least some
   of the requisite information comprising consumer related information; and
   once the requisite information has been uploaded, further configuring the
   network resource such that any requests by a non pre-sale user to access the network
   resource results in the serving of a consumer page displaying at least a subset of the
   consumer related information.

3. A method of providing digital information relating to an item, comprising:
   generating a machine readable code which is utilisable to access a network
   resource hosted by a network resource hosting service;
   permitting a user to register the code, such that once registered the user is
   allowed to upload information relating to the item in association with the hosted
   network resource, the information being uploaded by way of a preconfigured upload
   template; and
   providing at least a subset of the uploaded information to another user
   attempting to access the network resource through scanning of the code.
4. A system for providing configurable network resources, comprising:
   a network resource hosting service operable to host an assignable network
   resource;
   a code generating module operable to generate optical machine readable code
   encoding an address of the network resource, the code being provided on a code
   bearing medium for provision to a user,
   wherein the network resource hosting service is operable to assign the network
   resource to the user responsive to the user registering the code with the network
   resource such that once assigned the user is provided with access and/or modification
   privileges to configure the network.

5. A system for customising a hosted network resource, the system comprising:
   at least one server comprising:
   at least one processor configured to execute computer executable instructions; and
   at least one computer readable storage medium storing the computer executable
   instructions that when executed by the at least one processor cause the at least one
   processor to:
   generate a machine readable code that is machine readable for accessing a network
   resource hosted by a network resource hosting service; and
   assign the network resource to a user responsive to the code being registered with the
   network resource hosting service, such that once assigned the user is allowed
   provided with access and/or modification privileges to customise the network
   resource.
ID Name: Keyring

Reference: /

Name: Mario
Email: mario@qrsphere.com
Mobile: +61400000148
Location: Sydney
Notes: Please call me if you find these keys, I will pick up.

FIGURE 7
ID Name: Baster

Reference: Labrador

Name: Toni
Email: mario@mario.com
Mobile: +61 0444 444 444
Location: Sydney
Notes: Baster is a friendly dog, and love children.

FIGURE 8
Figure 10

Serve public page associated with network resource to public user scanning code

Assign network resource to purchaser

Register machine readable code

Upload information using pre-configured upload template (first pre-sale user)

Upload information using pre-configured upload template (second pre-sale user)
FIGURE 11