The invention is related to a method for communication between two parties, such as at least one sales organization with at least one outlet and a consumer. The method is characterized by the steps that the device comprises at least one RFID reader device placed at each outlet of the sales organization, said RFID reader device having RFID reader (2) for reading of IC chips and at least one display unit (2a, 2b), one for the consumer intended RFID tag (1) with a personally coded, locked IC chip, a server (5) for processing data from said RFID tag through an Internet connection, whereby recognition of said data from said RFID tag is aggregated with previously recorded data from the same RFID tag, said reader device (2) being designed to read the personal coded RFID tag and to process read information to then establish a communication between the consumer and the sale organization in question and then present the processed data on said at least one display unit (2a, 2b). The invention also provides a device for performing the process.
METHOD AND DEVICE FOR COMMUNICATION

The present invention relates to a method for communication between at least two parties according to the pre-characterizing portion of claim 1 and to a device for performing the method for communication according to the pre-characterizing portion of claim 5.

Field of the invention

Today, sales organizations are trying to build loyalty with new and old consumers through the so-called stamp card or loyalty card to increase sales and increase customer loyalty to the sales organization. Stamp cards are normally small pieces of paper, often in credit card format, where every purchase is registered with a stamp and a specified number of stamps/purchases give some kind of bonus, an extra service, such as an additional car wash, etc.

There are however some disadvantages for both the sales organizations and consumers with regard to these systems with stamp cards. One disadvantage is that the sales organizations have no idea of the number of stamp card present with consumers and they do not know on individual level no of stamps each customer hold.

A customer can for example have more than one stamp card, if he/she did not have the card with himself/herself at time of purchase. Furthermore, there exists the disadvantage that stamp cards do not provide any contact information to the consumer and therefore cannot provide any means of communication from the sales organizations to increase sales/loyalty. Moreover, a disadvantage is that if the sales organizations choose to enter contact information at bonuses, staff needs to manually input data. Here exist major quality problems in the data collection. A further drawback is that consumers want to have as few cards as possible in their wallet. With too many cards and stamp card the consumer will forget and have poor control of all their cards and stamp cards. Finally, the consumer will become skeptical of the existing systems and ultimately may not receive any bonuses, because it is difficult to have their entire card portfolio exactly at the time of purchase. The percentage of consumers who choose to decline plastic/stamp cards increases when the consumer no longer manage to have control on their cards or it gets too many cards in your wallet.

KR 20020064454 shows and describes an entry system that uses an RFIC card to be, read at entry of the arena for visiting a concert, a football game or other entertainments. This card can be used as entry and exit such as a ticket for admission to the appropriate
venue and can be applied to the mobile phone. RFIC card sends the signal that is
detected by the reading device at gate. The purpose here is quite different and the
reading device will only read answer if the "ticket" is valid or invalid for passage.

Field of the invention
This invention relates to provide a method for communication between two parties, such
as a sales organization and at least one consumer, whereby the method eliminates the
above disadvantages. The method according to the invention is also simple and reliable
and environmentally friendly in design and function.

Short summary of the invention
The purpose of this invention is achieved by a method according to the characterizing
portion of claim 1 and a device according to the characterizing portion of claim 5.

The sub claims define advantageous embodiments of the invention.

The RFID tag which is preferably placed, for example with adhesive tapes, on a subject
of the consumer, such as at the backside of mobile phone or placed on a wallet. RFID
tag can also be designed as a key fob to be placed among consumer's keys. The sales
organization collects in real time data about newly registered consumers, the number of
stamps etc by reading with the RFID reading device. The consumer's contact
information is provided automatically to the sales organization when the purchase is
carried out and the RFID tag is in contact or near the equipped area on RFID reading
device close to the point of sale. The contact information can be used for marketing DR
(direct advertisement), SMS, e-mail and can only be effected if the consumer has
accepted the terms of use of the service provided. The sales organization can also use
this information for improved customer insight, create catchment areas around the store
and increase their return on investment (ROI) on marketing budget. A further advantage
is that no additional resources are required at the sales organization for processing the
results; the method also provides accurate and updated consumer information.

For the consumer, the invention has the advantage that it eliminates unnecessary
handling, such as stamp coupons or cards in wallets and the consumer do not have to
keep track of their discounts/offers. The consumer also knows that the bonus will be
paid out as "loss" no longer exists providing a superior customer value.
One RFID tag, which applies to all affiliated sales organizations, is enough for each consumer and the consumer can easily on the web or through WAP get an overview of all sales organizations customer which are connected and sign up for those. Through less handling of vouchers and cards there is also an environmental aspect by using the method and device according to the invention.

**Brief description of the drawings**

The invention is described in detail below with reference to the accompanying drawings, which show a preferred embodiment.

Figure 1 shows a plan view of an RFID tag in the form of a sticker.

Figure 2 shows a plan view of a RFID reading device.

Figure 3 shows a side view of the RFID reading device in Figure 2.

Figure 4 shows a schematic flow chart of a method according to the invention for communication between two sales organizations and one consumer.

**Description of the preferred embodiment**

Figure 1 shows a schematic picture of a pre-known RFID tag 1, which may be in the form of a sticker that can be glued with a suitable adhesive on the back of a mobile phone or on a wallet or any other suitable place. The RFID tag 1 may alternatively be designed as a key fob to be attached to the consumer’s keys. The RFID tag 1 has an IC chip inside that is personally coded and locked for each individual. By means of the locking, the personal code of the IC chip cannot be manipulated.

In Figures 2 and 3, a reading device 2 is shown with a not visible, integrated RFID reader for reading the pre-programmed IC chip in the RFID tag 1, which is placed at the consumer who received this particular RFID tag 1. The RFID reader can with advantage be located on the inside of the reading device 2 behind the sloping surface 3. Reference number 4 denotes an electrical connection for power supply and transmission of data to and from a server 5 (see Fig.4). A consumer can order an RFID tag over the Internet through a special website provided by the organization that centrally manages the method and device described in the invention. Alternatively, the consumer receives the RFID tag at a defined sales place which is connected to the use of the method and the device according to the invention.

Figure 2 also shows the possibility of displaying information of the method and device according to the invention in the form of two display units 2a and 2b. The two display units are separated and the device is so designed, that the information on the first display unit 2a is directed towards staff at the sales organization and is not visible to the
consumer. As shown in Figure 2, a display window of the display unit 2a is arranged in a recess in the device to prevent transparency to the consumer. The communication on the second display unit 2b is visible to both parties but the text is read correctly by the consumer. All communication and information displayed is fetched from the server 5 and adjusted for each RFID tag and sales organization. Reference figures 2c and 2d denote the switches, through which the sale personnel can control the transfer of bonus and/or transmit information to the consumer's display unit 2b:

Figure 4 shows schematically a flow chart illustrating the operation of the method of the invention. The consumer acquires a specific RFID tag 1, which is personal with specific data, too be connected to one or more programs, i.e. sales organizations. The acquisition of the RFID tag 1 is made through any of the stores of the sales organization, which has signed up for the use of the method of the invention, or directly from the organization that centrally administrates and provides RFID tags. The consumer signs up with the sales organization giving pre defined contact information, which may differ between affiliated sales organizations. When consumer is registering their contact information by using WEBB or WAP, the consumers can also easily simply choose other programs to participate in. This can be achieved through communication with the central administrative organization. The consumer can thereby participate in more programs than what the consumer received the RFID tag 1 from. One single RFID tag 1 is sufficient for connection to multiple sales organizations. A sales organization may only advertise to consumers who have accepted advertising and have accepted to join their specified program, an active choice that takes place at each of the first contact with a new sales organization.

Figure 4 shows an RFID tag 1, which applies to a consumer. The number of RFID tags 1, which is using the method of the invention, is related to the number of people who signed up. The number of RFID tag 1 on the market may be very large and at least equal to the magnitude of the currently issued bonus cards for the biggest trading company in the market. However, the advantage is that an RFID tag 1 can be used for a variety of affiliated sales organizations or commercial enterprises. At the completion of the purchase, the consumer's draws the RFID tag 1 over and close by, so it comes into contact with the RFID reader device 2, which when it receives a signal from the RFID tag 1 is arranged to deliver an audio and/or light signal, which notifies the consumer that the data entry has been made. The display unit 2b on the RFID reading device 2 is to be used for communications to the consumer on the status of the program (number of stamps, current offers, or the like.) and verifying input of new data. The display unit 2a
is to be used for stimulation of personal treatment, potential cross sale or other information relevant to staff at points of sale. The visual message on the display unit 2a is not visible to the consumer. Figure 4 shows only two RFID reading devices 2 but this number may be quite different and depends on how many sales organizations that have acceded to the use of the method and device according to the invention. The number of RFID reading devices 2 is also dependent on the number of outlets and number of counters at each retail outlet.

The server 5 includes the database which contains important information that the consumer has acknowledged that a sales organization may have access to, such as name, address, city, year, month and day, and cell phone number and email address, etc. The server 5 is always in communication between RFID reading device 2 and the consumer. The server 5 also stores the information for the consumer on the number of stamps/programs etc. The server 5 holds customized communication to be displayed at RFID reading device 2 in sales organization both on the display unit 2b to the consumer and the display unit 2a on sale personnel. Accordingly, figure 4 shows RFID reading devices 2 arranged in two different outlets of a sales organization where the consumer's RFID tag 1 can be used. The consumer has by means of the Internet, or when ordering the RFID tag, or another point of time chosen these sales organizations. One of the sales organizations outlets with an RFID reader device 2 connected thereto can via the Internet 6 download defined data from the central server 5 for communication with the consumer via e.g. SMS, e-mail, or DR. as shown at the reference number 7. The server 5 can also communicate with consumers via the display unit 2b of the RFID reader device 2. Communication towards sales organization 8 and towards private consumers 9 can be achieved through the administrator's website. In addition, communication can be achieved through the mobile phone 10 of the consumer, such as by WAP or app. The server 5 can thus be arranged to notify the consumer through different channels.

The reading devices 2 with RFID reading capabilities is advantageously located close to and preferably linked to a store's cash register so that any discounts easily and automatically is deducted directly on payment. The RFID reading devices 2 are in the latter case, each connected to the cash registers through an interface, so that the regulation of any discounts is provided directly automatically.

The method and device according to the invention provide selective and more accurate distribution of offers. There is an environmental aspect reducing and gradually almost completely remove the DR in the form of untargeted distributed flyers with discount
offers. A relationship is created between the sales organization and the consumer. A single RFID tag can be used for multiple sales organizations or commercial enterprises, thereby reducing the thick bundles of bonus cards in the wallet; this also contributes to reduced emissions into the environment.

Messages can be transmitted easily via the displays 2a and 2b of the RFID reading device 2, SMS or the Internet directly to the consumer. Existing customer registers or databases can be imported so that an offer of registration and issuance of an RFID tag 1 can be done easily. For example, ongoing discounts from a particular sales organization can be sent to mobile phones or via e-mail linked to the RFID tag 1 in question so that consumers can take advantage of them. All transactions made through the buyer's associated RFID tag 1 can either just the sales organization, or both the sales organization and consumer access through communication with the server 5. According to the invention, it is also possible that the reading device with the RFID reader 2 includes only one display unit which is targeted to the consumer but also can be read by the outlet staff.

Modifications are of course also possible within the scope of the attached patent claims.
Claims:
1. A method for communication between two parties, such as at least one sales organization with at least one outlet and one consumer, characterized by the steps, that at least one sales organization outlet is provided with a reading device with an RFID reader (2) for reading IC chips, that said consumer is provided with a RFID tag (1) with a personal coded, locked IC chip, that said RFID tag (1) is drawn over and immediately adjacent to or in contact with said RFID reader, that data from said RFID tag, by the reading, is transferred from the RFID reading device (2) through an Internet connection to a server (5), that said data is processed in the server (5) so that the recognition of said data from said RFID is aggregated with previously recorded data from the same RFID tag, and that the selected information is processed, stored and/or transmitted in dependence of the registered use of said RFID tag to said reading device (2), whereby at least one display unit (2a, 2b) on the reading device (2) is used for communication between the consumer, who is the RFID tag carrier, and the sale outlet in question.

2. Method according to claim 1, characterized in that said information of processed data with previously recorded data from said RFID tag (1) in question and the sales organization in question, can be communicated and visualized both to the outlet through a first display unit (2a) of the RFID reader device (2) and against the carrier of the RFID tag (1) via a second display unit (2b) of the RFID reader device (2).

3. Method according to claim 1 or 2, characterized in that said processing related to the regulation of any discounts and/or communication to the parties concerned is carried out directly automatically.

4. Method according to claims 1 - 3, characterized in that said RFID reader device (2) of the sales organization is placed preferably at and associated with a cash register.

5. A device for performing the method according to any of claims 1 - 4 for communication between two parties, such as at least one sales organization with at least one outlet and a consumer, characterized in that the device comprises at least one RFID reader device (2) placed at each outlet of the sales organization, said RFID reader device having RFID reader (2) for reading of IC chips and at least one display unit (2a, 2b), one for the consumer intended RFID tag (1) with a personally coded, locked IC chip, a server (5) for processing data from said RFID tag through an Internet connection, whereby recognition of said data from said RFID tag is aggregated with
previously recorded data from the same RFID tag, said reader device (2) being designed
to read the personal coded RFID tag and to process read information to then establish a
communication between the consumer and the sale organization in question and then
present the processed data on said at least one display unit (2a, 2b).

6. Device according to claim 5. **characterized** in that said RFID tag (1) is an
identifier for multiple sales organizations connected to the same RFID tag and equipped
with at least one RFID reading device (2), whereby one RFID tag (1) is arranged to be
registered for each connected consumer, who then can collect points or bonuses
equivalent to stamps of all sales organizations with outlets/stores connected to and
equipped with RFID reading devices (2).

7. Device according to claim 5 or 6. **characterized** in that said RFID tag (1)
consists of a sticker, which is attached to an object of the consumer, such as a cell phone
or a wallet

8. Device according to claim 5 or 6. **characterized** in that said RFID tag (1) is
made as or attached to a key fob.

9. Device according to any of the claims 5 - 8. **characterized** in that said RFID
reader device (2) of the sales organization comprises is arranged to be located
preferably at and associated with a cash register.

10. Device according to any of claims 5 - 9. **characterized** in that said RFID
reading device (2) comprises a first display unit (2a) which is intended to be given to
staff at the point of sale and a second display unit (2b) which is intended to target the
consumer.

11. Device according to claim 10. **characterized** in that said first display unit (2a)
is arranged sheltered from view for the consumer, preferably in a recess provided in the
reader device (2), the opening of which is intended to be directed against personnel at
the point of sale.
amended claims
received by the international bureau on 08 june 2011 (08.06.2011)

1. A method for communication between two parties, such as at least one sales
organization with at least one outlet and one consumer, comprising the steps,
that at least one sales organization outlet is provided with a reading device
with an RFID reader (2) for reading IC chips, that said consumer is provided
with a RFID tag (1) with a coded IC chip, that said RFID tag (1) is drawn over
and immediately adjacent to or in contact with said RFID reader, that data
from said RFID tag, by the reading, is transferred from the RFID reading
device (2) through an Internet connection to a server (5), that said data is
processed in the server (5) so that the recognition of said data from said RFID
is aggregated with previously recorded data from the same RFID tag, and that
the selected information is processed, stored and/or transmitted in dependence
of the registered use of said RFID tag to said reading device (2), whereby at
least one display unit (2a, 2b) on the reading device (2) is used for
communication between the consumer and RFID tag carrier, and the sale
outlet in question, characterized in that said IC chip is locked at a personal
code for the consumer so that said personal code cannot be manipulated, and
in that said processing related to the regulation of any discounts and/or
communication to the parties concerned is earned out directly automatically,
whereby said information of processed data with previously recorded data
from said RFID tag (1) in question and the sales organization in question is
communicated and visualized both to the outlet through a first display unit (2a)
of the RFID reader device (2) and against the consumer and RFID tag carrier
via a second display unit (2b) of the RFID reader device, said first display unit
being not visible for the consumer.

2. Method according claim 1, characterized in that said RFID reader device (2)
of the sales organization is placed preferably at and associated with a cash
register.

3. A device for performing the method according to claim 1 or 2 for
communication between two parties, such as at least one sales organization
with at least one outlet and a consumer, the device comprises at least one
RFID reader device (2) placed at each outlet of the sales organization, said
RFID reader device having RFID reader (2) for reading of IC chips and at least
one display unit (2a, 2b), one for the consumer intended RFID tag (1) with a
coded IC chip, a server (5) for processing data from said RFID tag through an
Internet connection, whereby recognition of said data from said RFID tag is aggregated with previously recorded data from the same RFID tag, said reader device (2) being designed to read the personal coded RFID tag and to process read information to then establish a communication between the consumer and the sale organization in question and then present the processed data on said at least one display unit (2a, 2b), characterized in that said IC chip is arranged to be locked at a personal code for the consumer so that said personal code cannot be manipulated, and in that said RFID tag (1) is an identifier for multiple sales organizations connected to the same RFID tag and equipped with at least one RFID reading device (2), whereby one RFID tag (1) is arranged to be registered for each connected consumer, who then can collect points or bonuses equivalent to stamps of all sales organizations with outlets/stores connected to and equipped with RFID reading devices (2), said first display unit (2a) is arranged sheltered from view for the consumer, so that it is not visible for the consumer.

4. Device according to claim 3, characterized in that said RFID tag (1) consists of a sticker, which is attached to an object of the consumer, such as a cell phone or a wallet,

5. Device according to claim 3, characterized in that said RFID tag (1) is made as or attached to a key fob.

6. Device according to any of the claims 3 - 5, characterized in that said RFID reader device (2) of the sales organization is arranged to be located preferably at and associated with a cash register.

7. Device according to any of claims 3 - 6, characterized in that said RFID reading device (2) comprises a first display unit (2a) which is intended to be given to staff at the point of sale and a second display unit (2b) which is intended to target the consumer.

8. Device according to any of claims 3 - 7, characterized in that said first display unit (2a) which is arranged sheltered from view for the consumer is mounted in a recess provided in the reader device (2), the opening of said recess being intended to be directed against personnel at the point of sale.
INTERNATIONAL SEARCH REPORT

International application No.
PCT/SE2011/050049

A. CLASSIFICATION OF SUBJECT MATTER

IPC: see extra sheet

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

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC: G06Q, G06K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
SE.DK.FI.NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-INTERNAL, WPI DATA, PAJ, INPSEC, COMPDX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category*</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>US 20040024638 A (RESTIS), 5 February 2004 (05.02.2004), figures 1-10, claims 1-2,4,7,15, abstract, paragraphs (0001), (0038)-(0044), (0075)-(0080), (0093), (0103)</td>
<td>1-11</td>
</tr>
<tr>
<td>A</td>
<td>US 62977727 B1 (NELSON, JR.), 2 October 2001 (02.10.2001), claim 1, abstract</td>
<td>1-11</td>
</tr>
<tr>
<td>A</td>
<td>WO 2007030639 A2 (HOMEIER-BEALS, THOMAS, E.), 15 March 2007 (15.03.2007), abstract</td>
<td>1-11</td>
</tr>
</tbody>
</table>

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:
  'A' document defining the general state of the art which is not considered to be of particular relevance
  'E' earlier application or patent but published on or after the international filing date
  'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
  'O' document referring to an oral disclosure, use, exhibition or other means
  'P' document published prior to the international filing date but later than the priority date claimed
  'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
  'X' document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
  'Y' document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
  'X' member of the same patent family

Date of the actual completion of the international search: 1 April 2011

Date of mailing of the international search report: 11 04 2011

Name and mailing address of the ISA/Authorized officer
Swedish Patent Office
Box 5055, S-102 42 STOCKHOLM
Facsimile No. +46 8 666 02 86
Sofia Sjogren / JA A
Telephone No. +46 8 782 25 00

Form PCT/ISA/21 0 (second sheet) (July 2009)
INTERNATIONAL SEARCH REPORT

International patent classification (IPC)

G06Q 30/00 (2006.01)
G06K 19/00 (2006.01)

Download your patent documents at www.prv.se

The cited patent documents can be downloaded:
  • From "Cited documents" found under our online services at www.prv.se (English version)
  • From "Anforda dokument" found under "e-tjanster" at www.prv.se (Swedish version)

Use the application number as username. The password is LBENSGNMWV.

Paper copies can be ordered at a cost of 50 SEK per copy from PRV InterPat (telephone number 08-782 28 85).

Cited literature, if any, will be enclosed in paper form.
<table>
<thead>
<tr>
<th>Country</th>
<th>Application Number</th>
<th>Date</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>20040024638</td>
<td>05/02/2004</td>
<td>NONE</td>
</tr>
<tr>
<td>US</td>
<td>6297727</td>
<td>02/10/2001</td>
<td>NONE</td>
</tr>
<tr>
<td>WO</td>
<td>2007030639</td>
<td>15/03/2007</td>
<td>US 20090327086 A 31/12/2009</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>GB 2427496 A 27/12/2006</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>US 20080007388 A 10/01/2008</td>
</tr>
</tbody>
</table>