

SYSTEM AND METHOD FOR REDEMPTION OF A COUPON IN A MOBILE COMMUNICATION DEVICE ON A CONTACTLESS READER/POINT-OF-SALES TERMINAL

FIELD OF THE INVENTION

[0001] The present invention relates to a system and method for redemption of a mobile coupon in a mobile communication device, such as mobile phone and PDA, equipped with close proximity communication capability, such as Near Field Communication and Mifare, (henceforth refer to as “mobile communication device”) on a contactless reader attach to a Point-of-Sales (POS) terminal.

BACKGROUND

[0002] Mobile coupon solutions involve sending coupons via mobile network to subscribers’ mobile communication devices to increase sales or promote consumer loyalty for the merchant.

[0003] Radio frequency identification (RFID) tags embedded on advertising posters (Smart Posters) is a new way to deliver mobile coupons electronically to the consumers as and when they want them. Consumer taps the Smart Poster with the mobile communication device and can download the coupon directly from the browser or have it provisioned over the air (OTA) to the mobile communication device application such as a mobile wallet.

[0004] Unlike paper coupons that do not allow a direct link between the advertiser and the person who uses the coupon, mobile coupons provide marketing opportunity for location-based promotions as the location of the poster is known. Being digital, mobile coupons also enjoy a more efficient delivery mechanism as well as provide convenience of portability for the consumer.

[0005] The mobile coupons are stored securely in the secure element of the mobile communication device and can be redeemed via radio frequency communication protocol compatible with contactless readers that have become a pervasive infrastructure with the advent of contactless payment smart cards in the retail and transit sectors.

SUMMARY OF THE INVENTION

[0006] The invention provides a coupon redemption system. The system comprises a POS terminal/contactless reader configured to receive a coupon redemption message transmitted by a mobile communication device via radio frequency communication protocol such as Mifare. The coupon will emulate as a 'card'. The coupon redemption is done offline with the coupon transaction and payment transaction uploaded during end-of-day settlement. Hardcopy coupon redemption receipts are printed at the terminal and used for reconciliation. Merchant Coupon Redemption Report generated at the Settlement Server provides information for the redemption rate of coupons issued.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] Figure 1 illustrates a block diagram of an exemplary coupon system that is configured to accept coupon content from a mobile communication device, according to an exemplary embodiment of the invention.

[0008] Figure 2 illustrates a flow chart for an exemplary method of redeeming a merchant-issued coupon offline using radio frequency communication protocol such as Mifare from a mobile communication device, according to an exemplary embodiment of the invention.

[0009] Figure 3 illustrates the Merchant Coupon Redemption Report.

DETAILED DESCRIPTION OF THE INVENTION

[0010] Consumer taps on a RFID tag embedded in a Smart Poster 100 and is prompted on the mobile communication device 101 to connect to the mobile network 102.

[0011] A web page is presented with the promotion image and the terms and conditions.

[0012] The consumer will enter his mobile number (to receive the text message prompt such as a Control SMS) and click the download button.

[0013] A prompt will then be displayed when the text message prompt, such as a Control SMS, is received asking the consumer to accept or reject the coupon download from the Coupon Server 103.

[0014] The wallet on the mobile communication device will start up showing progress of the download.

[0015] When the download is completed successfully, the wallet will close when the consumer click the OK button. The coupon is now stored in the coupon folder and ready to be selected for redemption.

[0016] The terminal 105 via contactless reader 104 will call the communication interface to read coupon information/schema from the mobile communication device 101. The key for reading and writing is embedded in the contactless reader 104 firmware.

[0017] The terminal 105 via contactless reader 104 will check the coupon status flag that the coupon is not yet redeemed and the coupon expiry date that the coupon is still valid.

[0018] The terminal 105 via contactless reader 104 will set coupon status flag to redeemed using the key for writing and print the coupon redemption receipt for retention and subsequently for end-of-day reconciliation by the merchant.

[0019] The terminal 105 via contactless reader 104 will store coupon transaction together with the payment transaction log.

[0020] The coupon and payment transactions are to be uploaded via the Public Service Telephone Network (PSTN) 106 to Settlement Server 107.

[0021] The Merchant Coupon Redemption Report generated at Settlement Server 107 will indicate total number of coupon redemptions.

[0022] Broken transactions are transactions that are not completed due to communication failure between the mobile communication device 101 and the contactless reader 104. In the case of such transactions, terminal 105 via contactless reader 104 will prompt the message to tap again. The purpose of the second tap for the broken transaction is to check if the coupon has been redeemed. If the coupon has not been redeemed, the terminal will display "Coupon not redeemed".

WHAT IS CLAIMED

1. A coupon redemption system comprising:
a POS terminal/contactless reader configured to receive a coupon redemption message transmitted via radio frequency communication protocol such as Mifare by the consumer's mobile communication device
2. The system of claim 1, wherein the read and write keys are embedded in the POS terminal/contactless reader firmware.
3. The system of claim 1, wherein the coupon status is checked that it is not yet redeemed and coupon expiry date is still valid.
4. The system of claim 1, wherein the coupon status is updated to redeemed using the key for writing.
5. The system of claim 1, wherein the coupon redemption receipt is printed for retention and subsequently used for end-of-day reconciliation by merchant.
6. The system of claim 1, wherein the coupon transactions are stored together with the payment transactions offline at the terminal/contactless reader.
7. The system of claim 1, wherein the coupon transactions and the payment transactions are uploaded to the settlement server for settlement and coupon redemption reporting to the merchants.
8. The system of claim 1, wherein for broken transaction, the terminal/contactless reader will prompt the message to tap again to check if the coupon has been redeemed.