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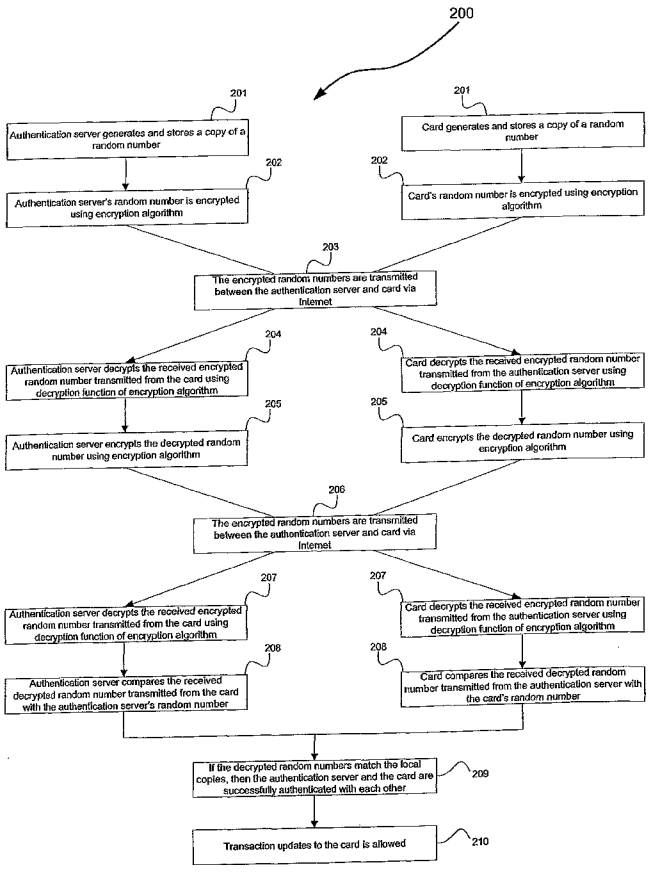
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(54) Title: UPDATING A MOBILE PAYMENT DEVICE



(57) Abstract: A method for updating a mobile payment device (5) of a user via an insecure network, the mobile payment device (5) storing value and enabling the user to perform cashless transactions with participating merchants (50, 60, 70, 80), the method comprising: transmitting identification information relating to the mobile payment device (5) to an authentication server (20); authenticating the mobile payment device (5) with the authentication server (20); and selecting a transaction type and transaction amount for a transaction; wherein authentication comprises: transmitting an encrypted first message from the authentication server (20) to the mobile payment device (5), and an encrypted second message from the mobile payment device (5) to the authentication server (20); decrypting the encrypted first and second messages; transmitting an encrypted third message based on the first message from the mobile payment device (5) to the authentication server (20), and an encrypted fourth message based on the second message from the authentication server (20) to the mobile payment device (5); decrypting the encrypted third and fourth messages; and comparing the first message with the third message and the second message with the fourth message, where if they match, the identity of the mobile payment device (5) and the authentication server (20) are authenticated with each other to enable updating of the mobile payment device (5) in accordance with the transaction.

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