ABSTRACT

Fig 42 shows one embodiment of a security authentication device used for third party smartphone mobile payment (example of "Alipay" by Alibaba Group and "WeChat Pay" by Tencent Holding). A smartphone 4002 is used to scan the image of a QR-code 104 and a security authentication device 3102 (My invention). This image is transmitted to a payment server computer 404 where the pattern of the QR-code 104 and the security authentication device 3102 is used to match with it internal security database system. If the matching is correct, the transfer of fund will be approved. The pattern of the security authentication device 3102 will be changed on a periodically basis depending on the user preference. For example, the user can adjust the setting so that this pattern changes on a daily basis at around 7am. The user will be notified of this change by the payment server computer 404 using SMS (Short Message Service) message, email or the like. Upon received of this SMS, the user will dis-assemble the security authentication device 3102 and re-assemble it in the correct order and orientation.

Fig. 42