

Title (en)
MICROPROCESSOR CARD PAYMENT SYSTEM

Title (de)
Mikroprozessor-Kartenzahlungssystem

Title (fr)
SYSTEME DE PAIEMENT PAR CARTE A MICROPROCESSEUR

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Application
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Abstract (en)
[origin: WO9825220A1] The present invention is a system for implementing electronic payment with a tamper resistant microprocessor card (230). The microprocessor card (230) generates joint signatures under a joint digital signature scheme which derives its secret signature key from secret values (240, 250) contributed by different parties such as user, bank and service provider of electronic commerce. The joint signature is used to certify (260) the payment among other information. It follows that no one party has complete knowledge of the secret signature keys (240, 250) of the other parties; therefore, the use of joint digital signature in conjunction with microprocessor card (230) provides unprecedented security. The present invention also defines a protocol including payment, deposit, withdrawal and account opening (200) in providing added protection against potential security attacks. Above all, the protocol also supports off-line payment transactions, thus allowing transaction to be conducted scalably and economically over various forms of electronic networks, including unsecured ones.

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