

Title (en)  
SMART CARD DATA TRANSACTION SYSTEM AND METHODS FOR PROVIDING STORAGE AND TRANSMISSION SECURITY

Title (de)  
DATENTRANSAKTIONSSYSTEM FÜR CHIPKARTEN UND VERFAHREN ZUR BEREITSTELLUNG VON SPEICHER- UND ÜBERTRAGUNGSSICHERHEIT

Title (fr)  
SYSTEME DE TRANSFERT DE DONNEES AU MOYEN D'UNE CARTE INTELLIGENTE ET METHODES POUR ASSURER LA SECURITE DU STOCKAGE ET DE LA TRANSMISSION

Publication  
**EP 1761904 A1 20070314 (EN)**

Application  
**EP 04741621 A 20040528**

Priority  
EP 2004050880 W 20040528

Abstract (en)  
[origin: WO2005119606A1] A smart card system is disclosed for secure transmission of post issuance data to a embedded chip using a chip relay module, a plurality of hardware security modules, a first communication system having two security layers and a second communication system having four security layers. The first communication system may be considered a server side system and comprises a chip management system, a security server having a first hardware security module, a distribution server having a second hardware security module and a computer system connected by a network. The first communication system has a first security layer and a second security layer. The first security layer comprises mutual authentication that makes each component of the first communication system a trusted node to the others through client mutual authentication. The second security layer comprises system keys for secure communication between the hardware security modules. The second communication system may be considered a client side system and comprises the computer system connected to the distribution server by a network, a PC/SC card reader driver, a Web browser application, and a chip relay module and is for secure communication between the distribution server and the chip of a smart card inserted in the card reader/writer. The second communication system has a third, fourth, fifth and sixth security layer.

IPC 8 full level  
**G07F 7/10** (2006.01)

CPC (source: EP)  
**G06Q 20/341** (2013.01); **G06Q 20/3552** (2013.01); **G06Q 20/3823** (2013.01); **G06Q 20/40975** (2013.01); **G07F 7/1008** (2013.01)

Citation (search report)  
See references of WO 2005119606A1

Citation (examination)  

- JOYE M ET AL: "ID-BASED SECRET-KEY CRYPTOGRAPHY", 1 October 1998, OPERATING SYSTEMS REVIEW, ACM, NEW YORK, NY, US, PAGE(S) 33 - 39, ISSN: 0163-5980, XP000849893
- JOYE M ET AL: "ID-BASED SECRET-KEY CRYPTOGRAPHY", OPERATING SYSTEMS REVIEW, ACM, NEW YORK, NY, US, vol. 32, no. 4, 1 October 1998 (1998-10-01), pages 33 - 39, XP000849893, ISSN: 0163-5980, DOI: 10.1145/302350.302359

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**EP 2004050880 W 20040528**; CA 2568990 A 20040528; CN 200480043033 A 20040528; EP 04741621 A 20040528; IL 17959706 A 20061127