

论文

## 基于多级分布式银行的Smart Card电子支付系统

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摘要

在电子支付系统中,采用分布式电子银行方案更适合于网络运行环境,然而在现行的分布式电子银行方案中,每个用户局限在所开帐户的电子银行取得签发的Smart Card和提取或存储电子货币,由于网络的瓶颈作用和安全缺陷,以及用户所处地域的分散性和流动性等因素的限制,使得单一开户的银行方案在实际应用中其分布式特性并未充分得以发挥。针对此,通过采用代理签字与群签字综合的方法,本文提出了多级电子银行的新方案,并对该方案的安全性进行了分析。

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## A hierarchically distributed bank based electronic payment system with smart cards

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Abstract

In electronic payment system, it is more suitable to introduce the distributed electronic bank scheme in networks environment. However, in current scheme, the users obtain their cards issued by the bank in which they have opened their accounts and withdraw and store their e-coin at the bank. Due to limits of current network bottleneck and security, dispersed and mobile users in different areas, there are some defects in a practical monadic account e-bank scheme. To solve this, a hierarchically distributed bank scheme is proposed by using an integrated method in which the group signature technique is combined with the proxy signature technique and analysis of the scheme security is given.

Key words [Networks security](#) [Electronic commerce](#) [Electronic payment](#) [Group signature](#)

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