

Secure Mobile Payment System in e-Commerce

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Abstract

Security issue is very important for mobile payment system in e-commerce. The proposed work introduces secure and fast mobile payment services aimed at J2ME enabled mobile phones over GPRS communication. The scope of the proposed solution is the combination of J2EE and J2ME capabilities and also uses SMS gateway to send secure and confirmation information to the mobile user. This paper defines the secure mobile payment system to allow mobile users to conduct mobile transactions over GPRS communications but also supports the related secured transactions between the payment server and mobile user. This paper analyzes the development of secure mobile payment system in ecommerce using J2EE and J2ME. In this system, consumers fill up the required information with mobile number from the Internet for purchasing goods. In payment option, a SMS with a security code, consumer id and product id will be sent over GPRS communication network to the consumer mobile number. Consumer uses a Mobile application, developed by J2ME, to send that secure information to the server by J2EE (JSP). The server application authenticates that information from the database server. If the authorization is fulfilled then the mobile payment system has completed the payment system and updates the information of database. Finally, we have discussed a case study for mobile payment for online bus ticket reservation as a case study.

Keywords

J2ME, J2EE, SMS Gateway, GPRS.