Micropayment is an electronic payment system for small value, e.g., electronic coins. Micropayment uses a little amount of resources, such as communication and computation, for its processing. There are two main existing Micropayment systems: Millicent and MiniPay. Millicent which was developed by Compaq Co., Ltd., is a well-known system and it is based on debit system. However, Millicent has some limitations in that its electronic coins, once generated, can be used at particular vendors only and such electronic coins can be forged by vendors or anyone who can break into such vendors' sites. MiniPay was developed by IBM to allow electronic coins to be vendor-independent. However, MiniPay uses Asymmetric Cryptography, which consumes computation resources expensively. In this paper, we aim to design Micropayment system for Thailand, which has advantages of the existing systems, but do not have their disadvantages.