Micropayment is an electronic payment system for small value transaction. It needs to use a little amount of resources, such as communication and computation due its small value. In other words, the processing cost for the micropayment must be less than the value of the payment. Several kinds of transactions are suitable for micropayment, eg. the purchasing of train tickets or digital newspapers. Since micropayment systems are designed for small-amount payment, the key factor for any micropayment system design is believed to be the minimization of resource consumption without compromising the standard security, in this paper, we propose an adaptive agent approach to credit-based micropayment system, which employs the concept of dynamic balancing between the resource consumption and the risk in the system.

As a result of the dynamic balancing, our system not only solves the problem of global overspending but also uses fewer amount of resources man existing approaches. Our approach limits the amount of money spent by untrusted customers to all merchants. Thus, our approach provides a boundary of the global overspending. In addition, for trusted customers, our approach requires less scale of communication for verifying authorizations than all existing approaches.