A Multiservice Access Solution based on S-OrBAC Model, Contactless Smartcard and NFC Technologies

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 151
Number 8

Year of Publication: 2016

Authors:

Mouad Mammass, Hafid Mammass, Fattehallah Ghadi

Abstract

We present in this paper a multiservice access solution based on S-OrBAC model, contactless smartcard and NFC technologies that allow to benefit from free or prepaid multiservice offered by organizations like universities for example. This solution permits to realize secure micro-transactions, network access and application access.

This paper propose a new variant S-OrBAC model based on the concept of service and the authentication of the cardholder by using the security features of the contactless smartcard and by controlling his rights and attributes stored in the S-OrBAC databases.

References

2. A. Abou El Kalam, R. El Baida, P. Balbiani, S. Benferhat, F. Cuppens, Y. Deswarte, A. Miège, C. Saurel et G. Trouessin, Or-BAC: un modèle de contrôle d'accès basé sur les organisations, Cahiers francophones de la recherche en sécurité de l'information, Numéro II, 1er trimestre 2003, pp30-43.
7. Christopher H. Lovelock "Classifying Services to Gain Strategic Marketing Insights" Journal of Marketing Vol. 47 No°3, pp 9-20

Index Terms

Computer Science  Circuits and Systems

Keywords

S-OrBAC, Multiservice access, Contactless Smartcard, NFC, JavaCard, ISO7816, APDU, ISO14443.