Abstract

The GSM technologies play a vital role in pervasive computing environments. The open and dynamic nature of the pervasive computing environment allows entities to join and leave frequently. This causes a large number of autonomous entities to interact in an ad-hoc manner, raising concerns as to the trustworthiness of the service providers. Thus service providers are not willing to share their resources to the anonymous users for fear of a potential security violation. To handle the issue of anonymous resource access, a policy based trust management system must grant user access of resources and information based on trustworthiness rather than the conventional technique map access rights authorization. In this paper, we have developed a new model of GSM-SMS based user authentication and policy based resource access, which will guarantee that service providers can securely share an unlimited number of resources to remote access. This framework provides mechanism to administrator to create policy and grant session based access permission to trusted users. The users can access information and resources based on the access policies and session policies through their mobile phone by sending SMS. This is a low cost and high performance model for preserving access control and resource access in pervasive computing environment.
A Design of Authentication and Access Control Model for Remote Access using GSM Technologies

References

- Kui Ren and Wenjing Lou: "Privacy Enhanced Access Control in Pervasive Computing Environments".
- Ran Yang, "Trust Based Access Control in Infrastructure-Centric Environment", IEEE International Conference on Communications (ICC), 2011.

Index Terms

Computer Science Mobile Communication
Keywords