Conference Paper Abstract

The MeDoc Distributed Electronic Library - Accounting and Security Aspects

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The MeDoc service provides access to a distributed full-text library for computer scientists over the Internet. Since the library provides commercial information products, accounting and security aspects are of considerable importance in this electronic-publishing project.

MeDoc has developed business, cost, and payment models suitable for electronic library services. The partners co-operating in the MeDoc service are users, providers and producers of information products. Their business interaction is based on trade as opposed to systems financed by advertising. The cost models offered to the users are various forms of subscription and "pay per view"-purchase. As payment models both credit and debit models are considered suitable for the MeDoc service. Initially only registered users are admitted to the MeDoc library, so the users can be charged via accounts. Currently a clearing agency handles the actual invoice process for the MeDoc service.

To secure the communication over the Internet within the MeDoc library, several existing implementations of cryptographic algorithms have been evaluated against the MeDoc requirements analysis. Communication channels MeDoc are now secured by transparent encryption mechanisms based on SSL.

The mechanisms described are implemented in a prototype that is evaluated in a first field test since the beginning of 1997.