Abstract

Authentication is one of the essential security features in network communication. Authentication process ascertains the legitimacy of the communicating partners in communication. In authentication process, the originator of the communication and the respondent transacts some identification codes of each other prior to start of the message transaction. Several methods have been proposed regarding the authentication process from time to time. Here, we introduce a new authentication scheme based on dynamicity which is relatively a different approach to ensure and enhance the smart card based remote authentication and security. This method discusses about the authentication for smart card based network systems. This method introduces a dynamic authentication scheme which includes number of factors, among them the password, password index, and date of modification are important factors which decides the dynamicity. The static approach
authentication schemes are vulnerable to different types of attacks. In order to overcome the threats of the existing approaches, the dynamic authentication scheme is introduced. This scheme ensures the authentication, confidentiality, reliability, integrity and security. The security analysis of this method shows that this scheme is sustainable to the vulnerability attacks during authentication process and provides more security features in networked communications using smart cards.

Reference


**Index Terms**

Computer Science  
Security

**Key words**

Dynamic Authentication  
Smart Card  
Reliability  
Integrity  
Network Security