Abstract

Ubiquitous Computing is the method of enhancing computer use by making many computers available throughout the physical environment, but making them efficiently invisible to the user. The ubiquitous networking capabilities support various classes of applications/services which require "Any Services, Any Time, Any Where and Any Devices" operation. As in ubiquitous computing identity of object and its authentication to the system plays a very vital role. So, it is important to have a technique through which we can read the object. After reading there will be the next role of identification and authentication of the object. As in ubiquitous computing identity of object and its authentication to the system plays a very vital role. In today's world of technology the biggest challenge for RFID technology is to provide benefits without threatening the privacy of consumers and providing secure authentication for RFID tags. Previously many solutions had suggested but there were many ways to break them. An approach of TRAP family of protocols by Tsudik seems to provide secure authentication but it is vulnerable to Denial-Of-Service (DOS) and replay attacks. This paper presents a novel method for secure authentication of RFID tags using cryptographic approach. The proposed protocol is SIP based implementation aims to authentication of RFID tags. SIP provides benefit of running a particular session for one tag. The main contribution is to resist attacks on RFID systems.
A Secure Authentication Scheme for Ubiquitous Computing

References

Keywords
Secure authentication protocol  tag level counter  TRAP family of protocols.