Abstract

Secure and multicast group communication is an active area of research. The main problem in secure group communication is group dynamics and key management. Group key management brings challenges on scalability for multicast security. Member joining and member leaving from the group is the main challenge in designing secure and scalable group communication for dynamic update of keys. Most of the proposed solutions are not considering this parameter and so suffer from the one-affects-n scalability problem. This paper presents the simulation of our approach A Novel Scalable Group Key Management Protocol (NSGKMP) and gives the brief introduction about NetworkSimulator2 (NS2). This NSGKMP approach decreases number of rekeying operation when a member joins in to the group or leave from the group i.e. dynamic updating of keys.

References

Simulation of A Novel Scalable Group Key Management Protocol

- Deborah Estrin, Mark Handley, John Heidemann, Steven McCanne and Ya Xu Haobo Yu, "Network Visualization with Nam, the VINT Network Animator", IEEE, pp. 63-68, November 2010.

Index Terms

Card Science

Security

Keywords

Group communications, group key management, key, multicast security and scalability, trace, nam, Simulation