Abstract

Excessive demand and the urgent need for the development of smart cities, evoke the need to provide the capacity for more low-resource devices to communicate and collaborate at a distance, in order to make the concept of the internet more real and practical. For this, IETF &quot;IPv6 over Networks of Resource-constrained Nodes&quot; (6lo) workgroup works on equipment of all resource constrained devices by IPv6 protocol to integrate the internet. From the security point of view, this integration is not without risks; the Internet carries many dangers and current security mechanisms are very greedy for such devices. This paper analyses potential security threats in 6lo as a particular case of mobile ad hoc networks, and provides some countermeasures ideas, in particular, the two principal security defense lines: the cryptography as a first line and the intrusion detection system as the second line.
6lo Technology for Smart Cities Development: Security Case Study

References

- K. Su, J. Li, and H. Fu, &quot;Smart city and the applications,&quot; in 2011 International Conference on Electronics, Communications and Control (ICECC), 2011, pp. 1028–1031.

Index Terms

Computer Science

Security

Keywords

Smart cities  6lo  6LoWPAN  Internet of Things  Network Security.