6LoWPAN网关的设计与实现

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摘　要：

本文提出了一种基于6LoWPAN的传感器网关，并对网关中的硬件与软件设计进行了详细的论述与讨论。在小型实验平台上对本网关的数据包接收率、平均延迟时间以及平均消耗能量等性能参数进行了比较分析。实验数据表明，本网关能很好地实现无线传感器网络与IPv6网络的互联并保证其连续性。

关键词：传感器网络，网关，适配层，协议

Design and Implementation of a 6LoWPAN Gateway

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Abstract:

This paper proposes a 6LoWPAN gateway and expounds the hardware and software design of the gateway. In a small-scale experimental platform the performance parameters of the gateway, including packet reception rate, average delay time and average consuming-energy, are compared and analyzed. The experimental data demonstrate that the gateway can perform the connection between a wireless network and an IPv6 network very well and can ensure the continuity of the communication between them.

Keywords: Sensor network, Gateway, Adaption layer, protocol

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