Originator recognition (OR) path recovery mechanism for load-based routing protocol

ABSTRACT

6LoWPAN has become a new technology to provide the internet connectivity to the traditional WSN. The introduction of 6LoWPAN adaptation layer enables the smooth delivery of packet from network layer to MAC layer. In this paper, the LOAD-based routing protocol with the proposed originator recognition (OR) path recovery mechanism is introduced. The proposed OR path recovery mechanism modifies the IETF conceptual LOAD protocol message by inserting an identity key in the generated RERR message. The identity key is then used by the originator of a failed data packet to initialize path recovery during the link failure. The developed OR-LOAD has examined under the 6LoWPAN environment in Qualnet simulator. Its performance is evaluated and compared to AODV in terms of packet delivery ratio and throughput.