

# Global configured method for Blueweb routing protocol

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## Abstract

Blueweb is a self-organising Bluetooth-based multihop network equipped with a scatternet formation algorithm and a hybrid routing protocol. The hybrid routing protocol combines the reactive method globally and the proactive method locally to discover the optimal path for packet transmission. This protocol can be configured for a particular network through adjustment of a single parameter, the number of routing tier. A global configured method is proposed by the authors to determine the desired configuration for Blueweb routing protocol. The global configured method is used in the route master and designs three blocks, including the traffic generator, the query packet estimator and the global tier decision blocks. The traffic generator block uses a uniform end-to-end traffic model in each master to generate the query packets for various N-tiers. The query packet estimator block measures the local and global query packets to compute the local query probability. The global tier decision block uses the parameter of local query probability to determine the proper number of routing tier. Computer simulation results show that this method can efficiently improve the routing performance and make the routing tiers configurable for a Blueweb routing protocol.

Keyword : Ad Hoc Networks, Bluetooth, sensor network