Implementation of Energy Aware Queue Management Algorithm for Maemo

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Abstract

We propose an implementation of a packet classification and queuing algorithm, called Energy Aware Early Detection (EAED). The idea of the algorithm is that selected packets from the queue are dropped based on the packet type, length of the packet queue and remaining battery capacity of the wireless router. The usage of algorithm will result an energy savings of the devices and thus increase the lifetime of the network through longer network connectivity. We describe a usage of this algorithm in wireless ad-hoc or mesh networks with VoIP traffic and present results of experiments.

INDEX TERMS: ENERGY CONSUMPTION, BATTERY, NETWORK, QUEUE MANAGEMENT, MAEMO.