

ABSTRACT

Bluetooth is a short range communication system using frequency hopping, operates on 2.4 GHz that can avoid interferences by hopping to new frequency after transmitting or receiving packets. Two devices or more use the same channel form a piconet. A group of two piconets or more is called scatternet.

Bluetooth can transmit data text, voices even pictures. Master and slave communicate using main unit and peripheral by forming the piconet. This final project discusses the transmission process in the piconet and scatternet. The transmission process begins with defining the topology, defining the source and sink, and then the simulation by sending bulk packets. The simulation will include a piconet with a master and 6 slaves, and a scatternet with 2 master and 3 slaves.

Delay and throughput are several factors defining the Bluetooth network performance. From the simulation we obtain the average packet delay and the average node delay and the throughput. And from the graphics we can summarize the bluetooth network performance.