

Performance evaluation of DigiMesh and ZigBee wireless mesh networks

This paper presents an experimental evaluation of ZigBee and DigiMesh networks; a two well-known and widely used Wireless Mesh Networks architectures. The performance metrics used were the throughput, Round Trip Time, Received Signal Strength Indication, and Mesh Routing Recovery Time. The conducted experiments show that DigiMesh have better throughput than ZigBee networks. However, ZigBee outperforms DigiMesh based networks by having lower Round Trip Time, higher Received Signal Strength Indication, and it needs less time to recover from a failure node. These features make ZigBee a better choice for applications that require less delay and need longer communication range, while DigiMesh based networks are better used for networks with high throughput requirements.