Sensor Network Topologies

Elementrix Classes

There are four types of sensor network topologies:

- Point to point network
- Star network
- Tree network
- Mesh network

Point to Point Topology

In this topology, there is no central hub. A single data communication channel is used for a secure communication path. Each device can act as a client and a server in it.

■ Star Network Topology

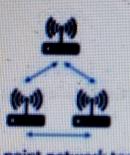
Unlike point to point networks, a centralized communication hub is present in a star network. Each communication flows through a centralized hub.

□ Tree Network Topology

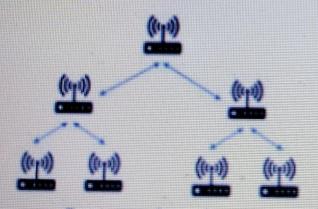
This topology is a hybrid of point to point and star topologies. The central hub is called a parent node. Data is passed on from leaf nodes to the parent node.

■ Mesh Network Topology

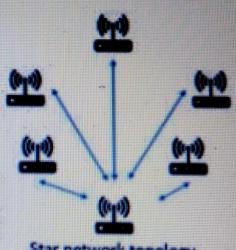
In the mesh network, the data can move from one node to another. All the nodes can communicate with each other directly without a central communication hub. The mesh network is the most reliable topology because there is no single point of failure.



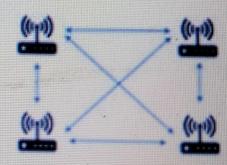
Point to point network topology



Tree network topology



Star network topology



Mesh network topology



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