MESH NETWORK

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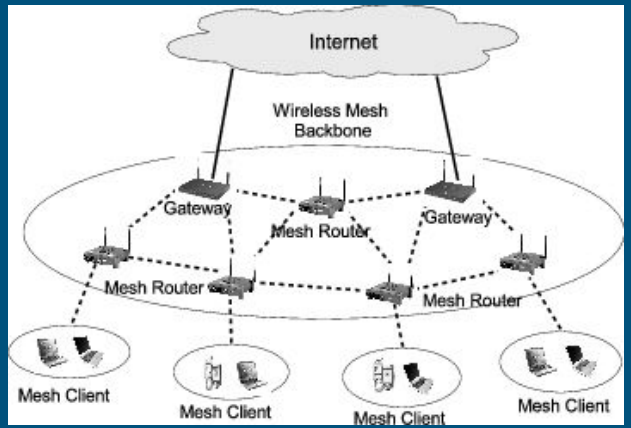
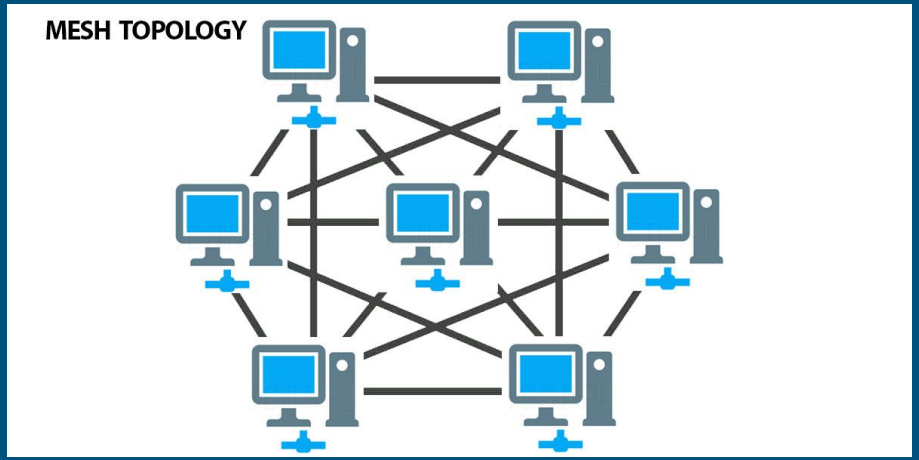
What is a mesh network?

- A network in which devices/nodes are linked together, branching off other devices or nodes.
- Create multiple routes for information to travel among connected nodes
- These networks are set up to efficiently route data between devices and clients. They help organizations provide a consistent connection throughout a physical space.



How mesh network arranged



- Each node have more than one connection to other nodes
- A good rule of thumb is to place the second node halfway between the router and the dead zone as you would with a range extender, but limit the distance to no more than two rooms, or about 30 feet. If you're using more than one satellite, follow the two-room rule.

Advantages

- It is more stable as single points of failure won’t harm the whole network
- It can transmit signals over a greater distance, providing better range
- Nodes can message each other directly
- Less power is needed for each node
- It can provide better security as if attacked, single nodes are easily replaced
- Mesh networks require less infrastructure than other types of network configurations

Disadvantages

- Its costly as compared to the opposite network topologies for example star, bus and point
- Installation is extremely difficult in the mesh
- Power requirement is higher as all the nodes will need to remain active all the time and share the load
- Complex process
- The cost to implement mesh is above other selections
- There is a high risk of redundant connections
- Each node requires a further utility cost to think about
- Maintenance needs are challenging with a mesh