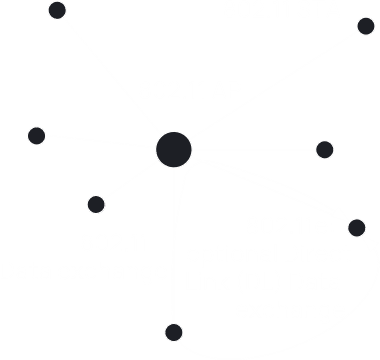
Chapter 04 – Mesh Networks Basics

Wireless networks typically form **start topologies**, with every device in the network connected to a single AP through which all traffic must pass.



## 4.1 Introduction

**Mesh Networks** allow nodes within the same network to communicate with each other wirelessly without involving an intermediary AP. However, not every device in the network will be able to directly communicate due to physical distance. In that case, they will depend on the other devices in the network identifying their neighbours and broadcasting the messages to them. There is routing involved here, but this is different from the routing used when an actual AP is involved. To distinguish this, this routing is called **path selection**.

The process by which neighbour devices propagate information to their neighbours in a mesh network can help **extend the range** of the network. This technique is used in backbone networks. However, there are strict security requirements involved here, since a single node cannot know for certain that it can trust every other node that will get its message. Afterall, they cannot even see every node that gets the message.