

# Dynamic Routing

- Two types of routing protocols are used in internetworks:
  1. Interior gateway protocols (IGPs)
  2. Exterior gateway protocols (EGPs)

# Interior gateway protocols (IGPs)

There are three classes of routing protocols:

## **1. Distance vector**

Ex: RIP

## **2. Link state**

EX: OSPF

## **3. Hybrid**

EX: EIGRP

# Maintain 3 Tables

- Routing table
- Topology table
- Neighbors table

# Administrative Distances

**TABLE 8.1** Default administrative distances

Route Source	Default AD
Connected interface	0
Static route	1
EIGRP	90
OSPF	110
RIP	120
External EIGRP	170
Unknown	255 (This route will never be used.)

# Characteristics of OSPF

- Metric value : Bandwidth
- Convergence : Fast
- AD value : 110
- Classless & vlsm : Yes
- Algorithm : shortest-path-first (Dijkstra)
- Authentication : MD5

# Neighbor ship conditions

- Same Area number
- Same Hello time & Hold Time
- Same Password (if configured)