OSPF

* Open shortest path first

* IGP - Interior Gateway protocol with in As (Autonomous system)
* Link state protocol
* Administrative distance - 110
* Uses multicast address 224.0.0.5
  224.0.0.6
* Metric → cost
* cost calculated by cost = $\frac{10^8}{B/\omega}$

Administrative Distance:

Source to Destination

ie) Shortest two path

OSPF	RIP
110	120

so OSPF is preferd.

* Classless routing protocol.
  VLSM & CIDR.
* Equal cost load balancing.
* Area cocept to manage
* Hello pacuet in regular interval
  Dead timer = 4 * hellowtimer.
* Router ip plays important role
  ie) name & router.

OSPF Table

Neighbour Table [show ip ospf neighbour]
Database Table [show ip OSPF database]
Routing Table [show ip route]

Router ID:

highut ip in loop back id
if no loop back id. then

7 states:

* Down state - Multi cast (initial)
* Init. state. - unicast.
* Two way state. - friend.
* Exstart state - who will share LSBB (highest IP will share)
* Exchange state - Database interchay
* Loading state - compare if update available
* Full state. - A & B synchronized

OSPF Area:

Back bone Area or Transit Area ('0')

* Communication via area '0'

Normal Area.
Other area Apart from Back bone area

OSPF Router:

* Internal router
* Backbone router.
* Area border router.
  (connect Backbone area & Normal Area)