



OSPF Neighbors

To become OSPF neighbors, OSPF routers must be agree on:

1. Area ID
2. Same subnet
3. Hello Interval and Dead Interval
4. Area Type (Stub, NSSA)
5. Authentication (Optional)
6. Router IDs must be unique

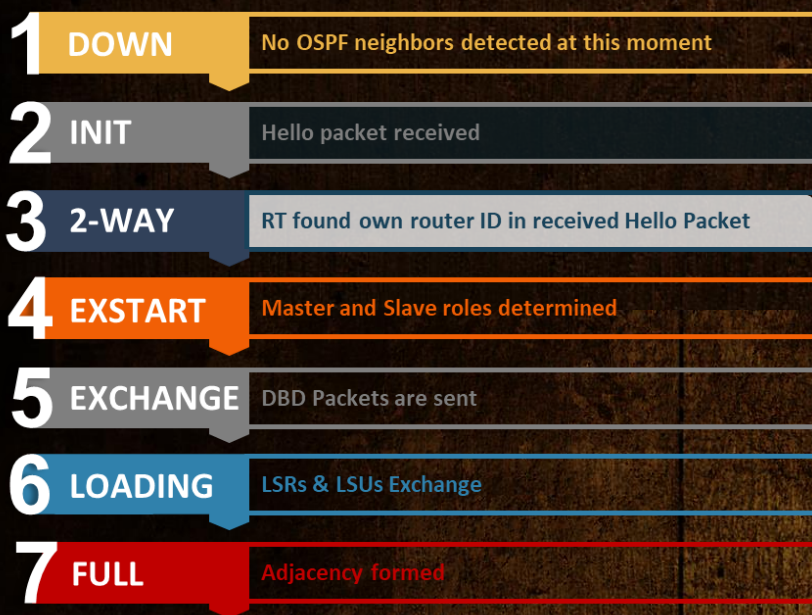
Neighbor Vs Adjacency:

*Neighbor & Adjacency are two different terms in OSPF.

Two routers in OSPF are called **NEIGHBORS** if they are exchanging Hello Packets.

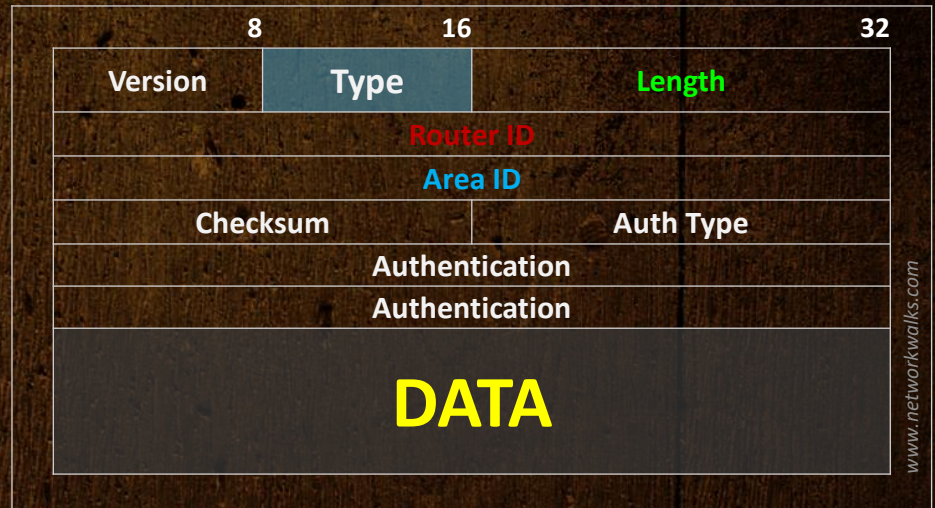
Two Routers in OSPF are called an **ADJACENCY** if they are exchanging Hello Packets as well as Database.

OSPF Neighbor States / Process



OSPF Route Types	
Code	Description
O	OSPF (Normal/Intra Area)
O IA	OSPF Inter-area
N1	OSPF NSSA External Type 1 (Adds the Internal Costs)
N2	OSPF NSSA External Type 2 (Doesn't add the Internal Costs)
E1	OSPF External Type 1 (Adds the Internal Costs)
E2	OSPF External Type 2 (Doesn't add the Internal Costs)

OSPF Packet Format

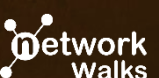
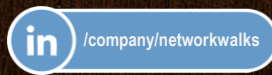


OSPF Packet Types



OSPF Multicast Addresses

IP Multicast Address	Description
224.0.0.5 (01005E-000005)	All OSPF routers(DR/BDR/DROTHER) send Hello on 224.0.0.5 All OSPF routers(DR/BDR/DROTHER) listen on 224.0.0.5
224.0.0.6 (01005E-000006)	All DROTHER (non-DR/BDR) routers send their LSAs to 224.0.0.6 All DR/BDR listen on 224.0.0.6 All DR/BDR send LSU/LSA on 224.0.0.5 <i>This is used for DR/BDR election & usage (by DR/BDR)</i>



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