

Features	RIP Protocol	OSPF Protocol
Routing Protocol Type	Distance vector routing protocol (uses the distance or hop counts to determine the transmission path)	Link State Routing Protocol (analyzes different sources like the speed, cost, and path congestion while identifying the shortest path)
Network Table Construction	The router consolidates the routing table from the neighboring devices to construct its own routing table and sends it to neighboring devices at a regular interval.	The router consolidates the routing table by getting only required information from the neighboring devices, never gets the entire routing table.
Default Metric	Based on hop count	Based on bandwidth
Hop Count Restriction	RIP protocol allows only up to 15 hops	OSPF protocol has no such restriction
Administrative Distance	120	110
Algorithm Used	Bellman-Ford algorithm	Dijkstra algorithm
Network Classification	In RIP, the networks are classified as areas and tables.	In OSPF, the networks are classified as areas, sub-areas, autonomous systems, and backbone areas.

Complexity Level	relatively simpler	much more complex
Network Application	RIP suits better for smaller networks as it has hop count restrictions	OSPF serves great for larger networks
Design	Flat network	Hierarchical network possible
Convergence Time	Slow	Fast
Device Resource Requirements	Much less memory and CPU intensive than OSPF	Memory and CPU intensive
Network Resource Requirements	Bandwidth consuming; whole routing table is sent	Less than RIP; only small updates are sent