

Dynamic Routing Protocols

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Dynamic Routing Protocols

- **RIPv1**
- **RIPv2**
- **IGRP**
- **EIGRP**
- **OSPF**
- **IS-IS**
- **BGP4**

RIP v1 - IGP

Type	Distance Vector
Default Metric	Hopcount
Administrative Distance	120
Hopcount Limit	15
Convergence	Slow
Update timers	30 seconds
Updates	Full table
Classless	No
Supports VLSM	No
Algorithm	Bellman-Ford
Update Address	Broadcast
Protocol and Port	UDP port 520

RIP v2 - IGP

Type	Distance Vector
Default Metric	Hopcount
Administrative Distance	120
Hopcount Limit	15
Convergence	Slow
Update timers	30 seconds
Updates	Full table
Classless	Yes
Supports VLSM	Yes
Algorithm	Bellman-Ford
Update Address	224.0.0.9
Protocol and Port	UDP port 520

IGRP - IGP

Type	Distance Vector
Default Metric	Bandwidth/Delay
Administrative Distance	100
Hopcount Limit	255 (100 default)
Convergence	Slow
Update timers	90 seconds
Updates	Full table
Classless	No
Supports VLSM	No
Algorithm	Bellman-Ford
Update Address	224.0.0.10
Protocol and Port	IP Protocol 9

EIGRP - IGP

Type	Hybrid
Default Metric	Bandwidth/Delay
Administrative Distance	90 (internal) and 170 (external)
Hopcount Limit	224 (100 default)
Convergence	Very Fast
Update timers	Only when change occurs
Updates	Only Changes
Classless	Yes
Supports VLSM	Yes
Algorithm	DUAL
Update Address	224.0.0.10
Protocol and Port	IP Protocol 88

OSPF - IGP

Type	Link-state
Default Metric	Cost
Administrative Distance	110
Hopcount Limit	None
Convergence	Fast
Update timers	Only when changes occur;
Updates	Only Changes
Classless	Yes
Supports VLSM	Yes
Algorithm	Dijkstra
Update Address	224.0.0.5 (All SPF Routers) 224.0.0.6 (DR's and BDR's)
Protocol and Port	IP Protocol 89

IS-IS - IGP

Type	Link-state
Default Metric	Cost
Administrative Distance	115
Hopcount Limit	None
Convergence	Fast
Update timers	Only when changes occur
Updates	Only changes
Classless	Yes
Supports VLSM	Yes
Algorithm	Dijkstra
Update Address	
Protocol and Port	

BGP - Exterior

Type	Path Vector
Default Metric	Multiple Attributes
Administrative Distance	20 (external) and 200 (internal)
Hopcount Limit	EBGP Neighbors: 1 (default) IBGP Neighbors: None
Convergence	Average
Update timers	Only when changes occur
Updates	Only changes
Classless	Yes
Supports VLSM	Yes
Algorithm	Best Path Algorithm
Update Address	Unicast
Protocol and Port	TCP port 179