

BGP Path Selection Criteria

Criteria		How	Defaults	Attribute Type	Notes / Commands
1	Weight	Highest	0	Not Propagated	neighbor 10.10.10.10 weight 100
					neighbor 10.10.10.10 filter-list 1 weight 100
					route-map FROM-WAN permit 10 set weight 40000
					router bgp 1 neighbor 10.1.2.2 route-map FROM-WAN in
2	Local Preference	Highest	100	Well-Known Discretionary	bgp default local-preference 200
					* See above for route-map example
3	If Locally Injected	Network & Redistribute > Aggregates	Local routes get a weight of 32768	Propagated via `origin`	router bgp 1 address family ipv4 unicast network 172.20.0.0/16
					aggregate-address 172.20.0.0 255.255.0.0 summary-only
					bgp redistribute-internal
4	AS Path	Shortest		Well-Known Mandatory	* AS_SET always counts as 1. * AS_CONFED_SEQUENCE, AS_CONFED_SET are not AS_PATH.
					bgp bestpath as-path ignore
5	Origin	i - Network Commands > ? - redistribution		Well-Known Mandatory	* If someone typed a network statement, prefer that route. Redistribute is less trustworthy
6	MED	Lowest		Optional Non- Transitive	* Both paths are from the same neighbor.
					bgp always-compare-med
					bgp bestpath med missing-as-worst
7	BGP Type	eBGP > iBGP			* Prefer routes learned externally
8	IGP metric to BGP next hop	Lowest			* Prefer the quickest way out of the network
9	Is Multipath On?		Off		* If multipath is on, install routes
10	If external paths, path age.	Oldest			* Used to prevent route flaps.
11	Router ID	Lowest			* Tends to be highest IP address on the router, with preference given to loopback addresses.
12	Cluster List	Shortest		Optional Non-transitive	
13	Neighbor Address	Lowest			

Source - <https://www.cisco.com/c/en/us/support/docs/ip/border-gateway-protocol-bgp/13753-25.html>

PDF - <https://github.com/ariadne-notes/networking/bgp-path-selection-criteria.pdf>

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