BGP – Cheatsheet (ATech) – Part-1 v1

ONLINE TRAINING ACADEMY
Training The Generations

Key Attributes

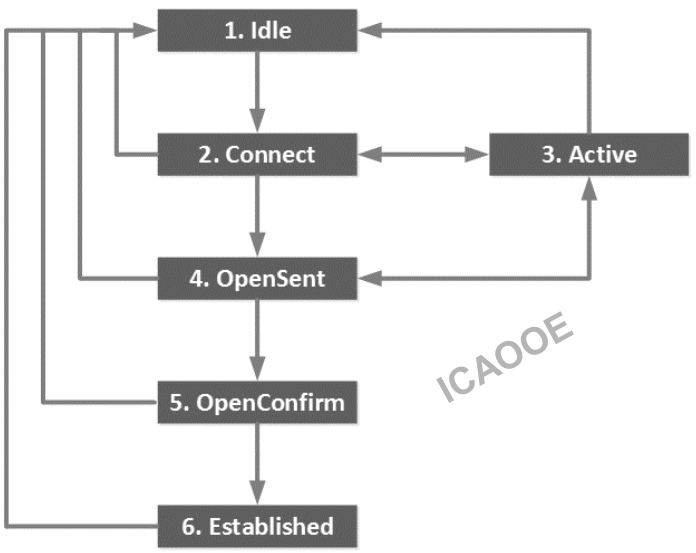
Protocol Type/Class: Path-Vector
Algorithm: Comp. Metric
Type: EGP (Exterior Gateway Protocol)
Metric: Composite Metric based on multiple factors
No. of packet types: 4 (Open, Update, Keepalive, Notification)
Admin Distance: 20 (eBGP), 200 (iBGP)
No. of Neighbor States: 6
Transport: TCP (Port179)
Standard: IETF RFC4271 (BGPv4 - 2006)
Authentication Support: YES (MD5)

BGP Types

eBGP	iBGP
Admin Distance = 20	Admin Distance = 200
Peering between Routers in different AS	Peering between Routers in same AS
TTL = 1 *(means, only directly connected Peers can talk to each other)*	TTL = 255 *(means, Peers which are hops away from each other can still talk to each other)*
Does NOT require Full Mesh Topology	Full Mesh Topology Required (or any remedy for it e.g. Router Reflectors, Confederations, …)
Next-hop is changed to Local Router in advertisements to peers	Next-hop is NOT changed to Local Router in advertisements to peers
Loop Prevention Mechanisms: AS-PATH	Loop Prevention Mechanisms: Split Horizon
AS is prepended/added in the AS-PATH attribute in advertisements	AS is NOT prepended/added in the AS-PATH attribute in advertisement
Does not send the LOCAL-PREF attributes in advertisements	Sends the LOCAL-PREF attributes in advertisements

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BGP Neighbor States



BGP Packet /Message Types

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- **Open Message 1** — *Set up and establish BGP adjacency*
- **Update Message 2** — *Advertise, update & withdraw routes*
- **Keepalive Message 3** — *Ensure that BGP neighbors are still alive*
- **Notification Message 4** — *Error Condition notification*

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BGP Origin Codes

Code	Detail
i	**IGP:** Route injected into the BGP tables using the network statement
e	**EGP:** Not used anymore
?	**Incomplete:** Redistributed into BGP (either from static or a dynamic routing protocol)

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