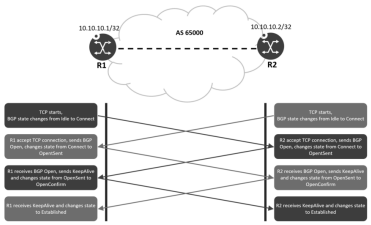
BGP Cheat Sheet Cheat Sheet

by teenoko via cheatography.com/82009/cs/19961/

BGP Operation

Phase 1 - TCP	Phase 2 - BGP Capbalities Exchange
Both BGP routers attempt a TCP session on port 179.	After the TCP Session is established - BGP Speakers exchange messages.

Finite State Machine



FSM

Phase	State Name	Next Succes-sfull State
TCP	Idle(Start)	Connect
TCP	Connect	OpenSent
TCP	Active(If TCP fails)	OpenSent
BGP	OpenSent	OpenCo-nfirm
BGP	OpenCo-nfirm	Establ-ished!

BGP Messages

Open - Initial request for a BGP session

Update - Exchange NLRI between peers

Notification - Indicate an error and closes session

KeepAlive - Response to Open Messages & Maintains TCP session

RouteRefresh - Requests a BGP peer resend the routes it advertised at session establish-ement.

BGP Timers

Connect Retry	120 seconds
Hold Time	90 seconds
Keep Alive	30 seconds

Attributes

Attributes	Description
Origin	Origin telling you where the NLRI comes from (IGP, EGP, or incomplete)
AS-Path	AS-Path telling you how many AS that have been traversed by the NLRI to the destination
Next-Hop	Next-Hop telling which protocol that can be used by the NLRI to reach the destination
Local-Preference	Local-Pref like metric in iBGP topology, The NLRI/prefix that have highest Loc-Pref is choose as active route in route table, default value Loc-Pref 100
Atomic-Aggregate	The purpose of the atomic-aggregate is to alert BGP speaker that route aggregation has be performed. Its set automatically to indicate a loss of AS path information when a router aggregate receive a set of prefix from other ASes
Aggregator	BGP speaker performing route aggregation may add the aggregator attribute to indicate its own ASN and router-ID.
Community	Community like a label for the NLRI/Prefix, its very useful when you want to grouping some prefix.
MED (Multi Exit Descriminator)	MED like metric in eBGP topology, the NLRI/prefix that have smallest MED value is choose active route in route table, by default no MED value configuration.
Originator-ID	The Originator ID is set to perform loop prevention when the router configure as a RR (Rou Reflector), Originator-ID carriers the router ID of the route originator in the local AS
Cluster-List	Cluster List carriers a sequence of Cluster-ID that the route has traversed.

Attributes

Well-Known Mandatory	Must be present in every BGP Update
Well-Known Discre-tionary	Recognized by all BGP implementations, but may or may not be present in the Update message

By **teenoko**
cheatography.com/teenoko/

Not published yet.
Last updated 30th June, 2019.