



# How to Access and Use Quagga Shell using Avi CLI

Avi Technical Reference (v18.2)

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## Background

Quagga is a network routing software suite providing implementations of various routing protocols. Avi Vantage uses Quagga for BGP based scaling of virtual services. For more information on BGP scaling on Avi Vantage, refer [BGP Support for Scaling Virtual Services](#).

To know more about Quagga, refer [Quagga Software](#) article.

## Instructions

Quagga `shell` is used to check BGP configuration and status of BGP peer.

Note In this example, all the commands are executed from the default namespace on an Avi SE hosting a virtual service enabled for BGP. To list the namespaces available, use the command `ip netns`. To switch to the desired datapath namespace, use the following command.

```
admin@AVI-SE1:ip netns exec namespace name bash
```

### Changes in Avi Vantage 17.2.8

For Avi Vantage release 17.2.8 and later versions, use the `netcat localhost bgpd` command instead of the `telnet localhost bgpd` command to get access to the Quagga shell.

```
admin@AVI-SE1: netcat localhost bgpd
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.

Hello, this is Quagga (version 0.99.24.1).
```

**Note:** Password is avi123

If the authentication is successful, the following output is observed.

```
Quagga-bgp>
```

### Configuration and Troubleshooting Commands

Use the command `show run` to check running configuration

```
Quagga-bgp> en
Quagga-bgp# show run
```

```

Current configuration:
!
password avil23
log file /var/lib/avi/log/bgp/0_bgpd.log
!
router bgp 65000
  bgp router-id 1.2.87.205
  network 10.140.99.153/32
  neighbor 10.140.60.155 remote-as 3
  neighbor 10.140.60.155 password avil23
  neighbor 10.140.60.155 advertisement-interval 5
  neighbor 10.140.60.155 timers 60 180
  neighbor 10.140.60.155 timers connect 10
  neighbor 10.140.60.155 distribute-list 2 out
  neighbor 10.140.99.157 remote-as 2
  neighbor 10.140.99.157 password avil23
  neighbor 10.140.99.157 advertisement-interval 5
  neighbor 10.140.99.157 timers 60 180
  neighbor 10.140.99.157 timers connect 10
  neighbor 10.140.99.157 distribute-list 1 out
!
access-list 1 permit 10.140.99.153
!
line vty
!
end

```

Use the command `show bgp neighbors` to check bgp peering status.

```

10-140-4-220# *show bgp neighbors*
BGP neighbor is 10.140.60.155, remote AS 3, local AS 65000, external link
  BGP version 4, remote router ID 0.0.0.0
  BGP state = Active*
  Last read 03w5d06h, hold time is 180, keepalive interval is 60 seconds
  Configured hold time is 180, keepalive interval is 60 seconds
  Message statistics:
    Inq depth is 0
    Outq depth is 0

```

	Sent	Rcvd
Opens:	0	0
Notifications:	0	0
Updates:	0	0
Keepalives:	0	0
Route Refresh:	0	0
Capability:	0	0
Total:	0	0

```

  Minimum time between advertisement runs is 5 seconds

For address family: IPv4 Unicast

```

```

Community attribute sent to this neighbor(both)
Outbound path policy configured
Outgoing update network filter list is 2
0 accepted prefixes

Connections established 0; dropped 0
Last reset never
Next connect timer due in 3 seconds
Read thread: off Write thread: off

BGP neighbor is 10.140.99.157, remote AS 2, local AS 65000, external link
BGP version 4, remote router ID 10.140.6.28
BGP state = Established, up for 03w6d03h*
Last read 00:00:48, hold time is 180, keepalive interval is 60 seconds
Configured hold time is 180, keepalive interval is 60 seconds
Neighbor capabilities:
 4 Byte AS: advertised and received
Route refresh: advertised and received(old & new)
Address family IPv4 Unicast: advertised and received
Graceful Restart Capabilty: advertised and received
  Remote Restart timer is 120 seconds
Address families by peer:
  none
Graceful restart informations:
  End-of-RIB send: IPv4 Unicast
  End-of-RIB received: IPv4 Unicast
Message statistics:
  Inq depth is 0
  Outq depth is 0

          Sent      Rcvd
Opens:           6         3
Notifications:   3         0
Updates:         4         1
Keepalives:     39103     39102
Route Refresh:   0         0
Capability:      0         0
Total:          39116     39106

Minimum time between advertisement runs is 5 seconds

For address family: IPv4 Unicast
Community attribute sent to this neighbor(both)
Outbound path policy configured
Outgoing update network filter list is *1
0 accepted prefixes

Connections established 1; dropped 0
Last reset never
Local host: 10.140.99.156, Local port: 179
Foreign host: 10.140.99.157, Foreign port: 54566
Nexthop: 10.140.99.156
Nexthop global: ::

```

```
NextHop local: ::  
BGP connection: non shared network  
Read thread: on Write thread: off
```