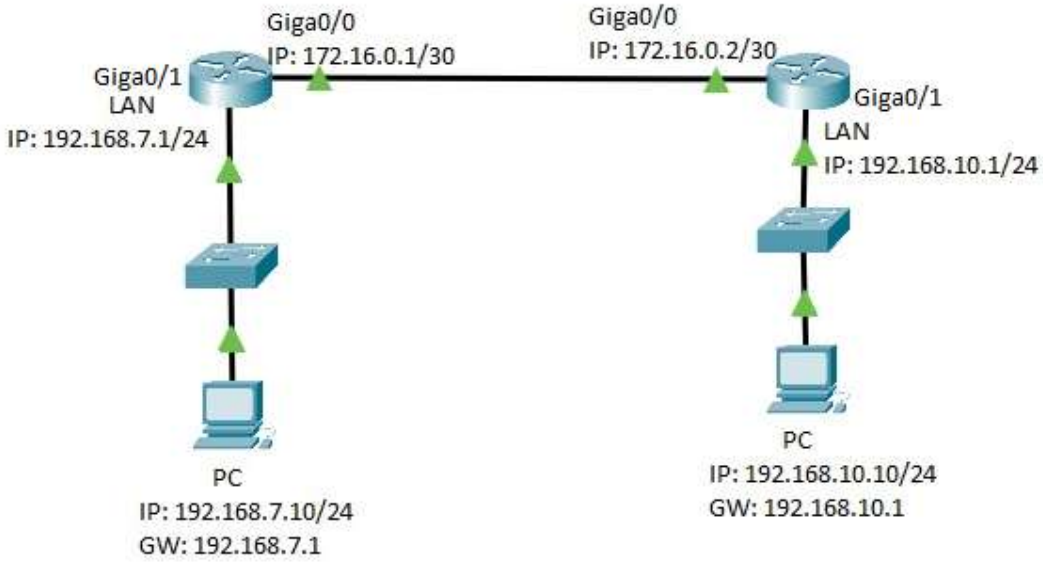
Verify BGP



Router 1

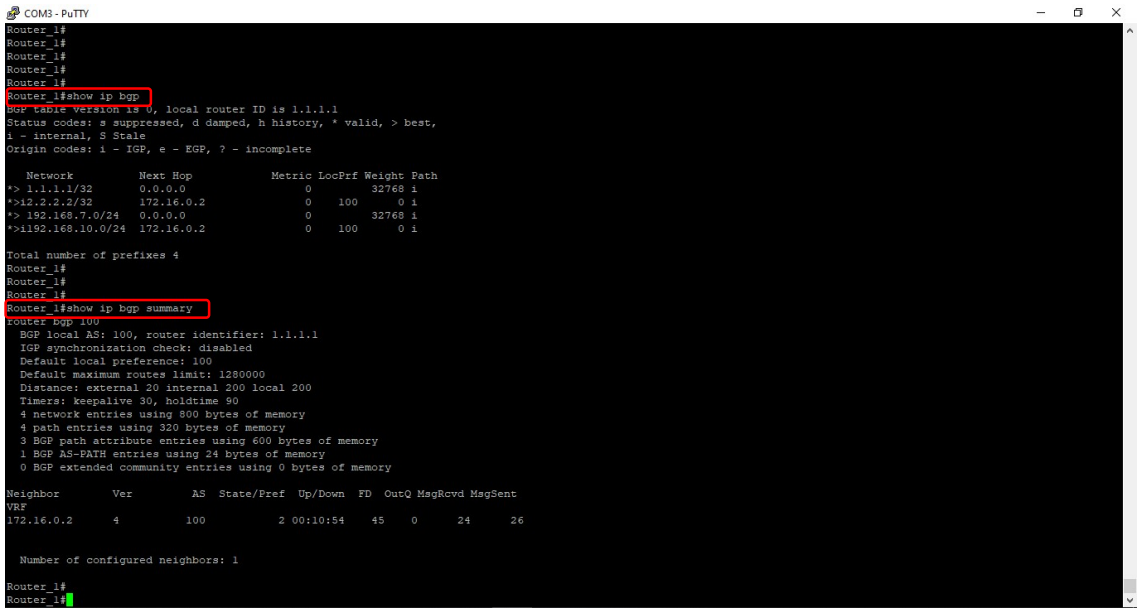
```
interface Loopback1
 ip address 1.1.1.1 255.255.255.255
!
interface GigaEthernet0/0
 ip address 172.16.0.1 255.255.255.252
!
interface GigaEthernet0/1
 ip address 192.168.7.1 255.255.255.0
!
router bgp 100
 no synchronization
 bgp log-neighbor-changes
 network 1.1.1.1/32
 network 192.168.7.0/24
 neighbor 172.16.0.2 remote-as 100
```

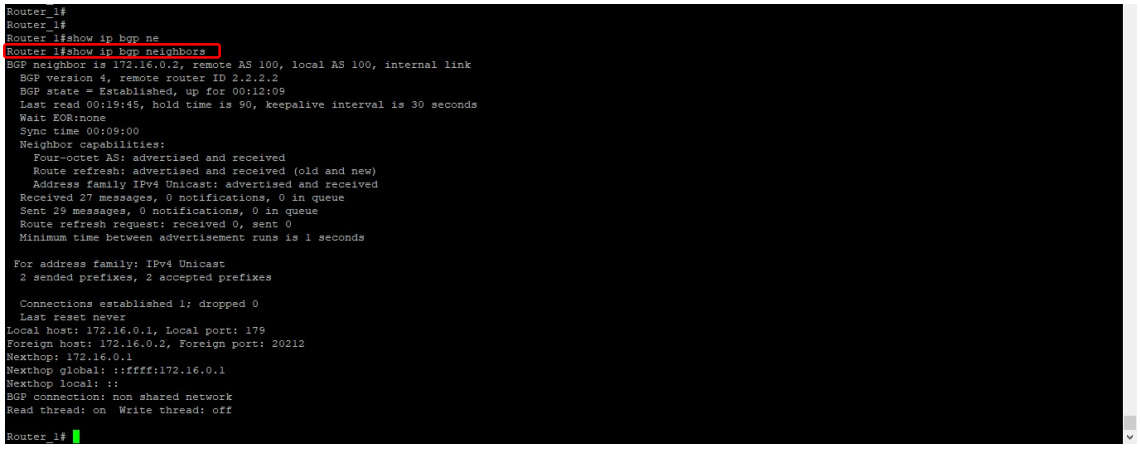
Router 2

```
interface Loopback2
 ip address 2.2.2.2 255.255.255.255
!
interface GigaEthernet0/0
 ip address 172.16.0.2 255.255.255.252
!
interface GigaEthernet0/1
 ip address 192.168.10.1 255.255.255.0
!
router bgp 100
```

no synchronization
bgp log-neighbor-changes
network 2.2.2.2/32
network 192.168.10.0/24
neighbor 172.16.0.1 remote-as 100
!

Router 1



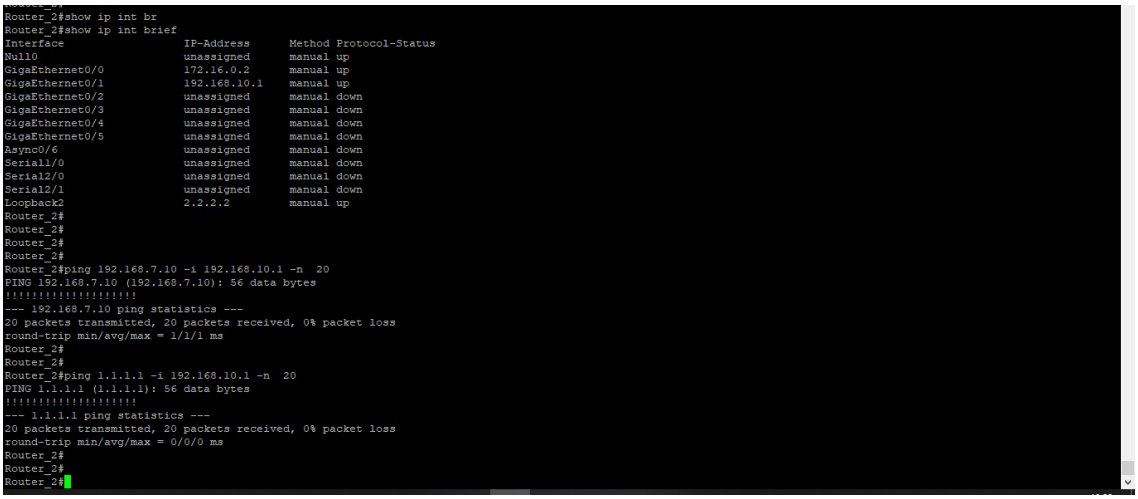


```
Router_1#
Router_1#show ip int br
Router_1#show ip int brief
Interface                  IP-Address      Method Protocol-Status
Null0                      unassigned      manual up
GigaEthernet0/0            172.16.0.1      manual up
GigaEthernet0/1            192.168.7.1     manual up
GigaEthernet0/2            unassigned      manual down
GigaEthernet0/3            unassigned      manual down
GigaEthernet0/4            unassigned      manual down
GigaEthernet0/5            unassigned      manual down
Async0/6                   unassigned      manual down
Loopback1                  1.1.1.1         manual up
Router_1#
Router_1#
Router_1#ping 192.168.10.10 -i 192.168.7.1
PING 192.168.10.10 (192.168.10.10): 56 data bytes
!!!!!
--- 192.168.10.10 ping statistics ---
5 packets transmitted, 5 packets received, 0% packet loss
round-trip min/avg/max = 0/0/2 ms
Router_1#
Router_1#
Router_1#
Router_1#ping 2.2.2.2 -i 192.168.7.1
PING 2.2.2.2 (2.2.2.2): 56 data bytes
!!!!!
--- 2.2.2.2 ping statistics ---
5 packets transmitted, 5 packets received, 0% packet loss
round-trip min/avg/max = 0/0/0 ms
Router_1#
Router_1#
```

Router 2

```
Router_2#
Router_2#show ip bgp
  bgp                      -- Show BGP information
Router_2#show ip bgp
BGP table version is 0, local router ID is 2.2.2.2
Status codes: s suppressed, d damped, h history, * valid, > best,
i - internal, S Stale
Origin codes: i - IGP, e - EGP, ? - incomplete

   Network          Next Hop            Metric LocPrf Weight Path
*>il.1.1.1/32       172.16.0.1               0    100      0 i
*> 2.2.2.2/32       0.0.0.0                  0         32768 i
*>i192.168.7.0/24   172.16.0.1               0    100      0 i
*> 192.168.10.0/24  0.0.0.0                  0         32768 i

Total number of prefixes 4
Router_2#
Router_2#show ip bgp summ
Router_2#show ip bgp summary
router bgp 100
  BGP local AS: 100, router identifier: 2.2.2.2
  IGP synchronization check: disabled
  Default local preference: 100
  Default maximum routes limit: 1280000
  Distance: external 20 internal 200 local 200
  Timers: keepalive 30, holdtime 90
  4 network entries using 800 bytes of memory
  4 path entries using 320 bytes of memory
  3 BGP path attribute entries using 600 bytes of memory
  1 BGP AS-PATH entries using 24 bytes of memory
  0 BGP extended community entries using 0 bytes of memory

Neighbor        Ver         AS  State/Pref  Up/Down  FD  OutQ MsgRcvd MsgSent
VRF
172.16.0.1      4          100           2 00:13:51    44    0      31      32


  Number of configured neighbors: 1

Router_2#
Router_2#
```

```
Router_2#
Router_2#show ip bgp n
Router_2#show ip bgp neighbors
BGP neighbor is 172.16.0.1, remote AS 100, local AS 100, internal link
  BGP version 4, remote router ID 1.1.1.1
  BGP state = Established, up for 00:15:17
  Last read 00:15:31, hold time is 90, keepalive interval is 30 seconds
  Wait EOR:none
  Sync time 00:12:38
  Neighbor capabilities:
    Four-octet AS: advertised and received
    Route refresh: advertised and received (old and new)
    Address family IPv4 Unicast: advertised and received
  Received 34 messages, 0 notifications, 0 in queue
  Sent 35 messages, 0 notifications, 0 in queue
  Route refresh request: received 0, sent 0
  Minimum time between advertisement runs is 1 seconds

 For address family: IPv4 Unicast
  2 sended prefixes, 2 accepted prefixes

  Connections established 1; dropped 0
  Last reset never
Local host: 172.16.0.2, Local port: 20212
Foreign host: 172.16.0.1, Foreign port: 179
Nexthop: 172.16.0.2
Nexthop global: ::ffff:172.16.0.2
Nexthop local: ::
BGP connection: non shared network
Read thread: on  Write thread: off

Router_2#
```


Router_2#show ip int br
Router_2#show ip int brief
Interface IP-Address Method Protocol-Status
Null0 unassigned manual up
GigaEthernet0/0 172.16.0.2 manual up
GigaEthernet0/1 192.168.10.1 manual up
GigaEthernet0/2 unassigned manual down
GigaEthernet0/3 unassigned manual down
GigaEthernet0/4 unassigned manual down
GigaEthernet0/5 unassigned manual down
Async0/6 unassigned manual down
Serial1/0 unassigned manual down
Serial2/0 unassigned manual down
Serial2/1 unassigned manual down
Loopback2 2.2.2.2 manual up
Router_2#
Router_2#
Router_2#
Router_2#
Router_2#ping 192.168.7.10 -i 192.168.10.1 -n 20
PING 192.168.7.10 (192.168.7.10): 56 data bytes
!!!!!!!!!!!!!!!!!!!!
--- 192.168.7.10 ping statistics ---
20 packets transmitted, 20 packets received, 0% packet loss
round-trip min/avg/max = 1/1/1 ms
Router_2#
Router_2#
Router_2#ping 1.1.1.1 -i 192.168.10.1 -n 20
PING 1.1.1.1 (1.1.1.1): 56 data bytes
!!!!!!!!!!!!!!!!!!!!
--- 1.1.1.1 ping statistics ---
20 packets transmitted, 20 packets received, 0% packet loss
round-trip min/avg/max = 0/0/0 ms
Router_2#
Router_2#
Router_2#