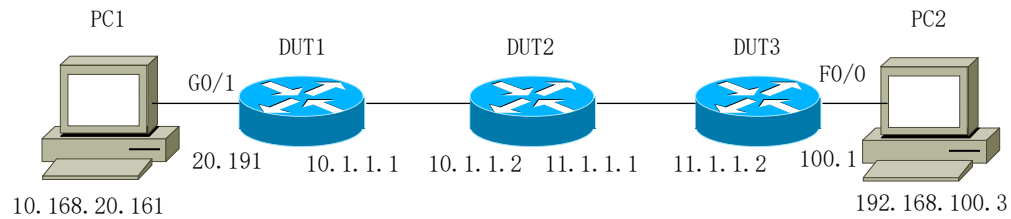


BGP test:

TOPO:



Test descriptions:

1. DUT1、 DUT2、 DUT3 connect as above picture through 2M V.35 serial interfaces;
2. Set PC' gateway ip as connected router's Ethernet port's ip.
3. Set DUT1 belongs to AS100, DUT2、 DUT3 belongs to AS200;
4. Show all DTU routers routing table
5. PC1 can ping PC2

Configuration:

DUT1:

```
interface Loopback0
 ip address 1.1.1.1 255.255.255.0
 no ip directed-broadcast
!
interface Serial3/0
 ip address 10.1.1.1 255.255.255.0
 no ip directed-broadcast
!
interface GigaEthernet0/1
 ip address 10.168.20.191 255.255.255.0
 no ip directed-broadcast
!
router bgp 100
 bgp log-neighbor-changes
 network 1.1.1.0/24
 network 10.168.20.0/24
 neighbor 10.1.1.2 remote-as 200
!
```

DUT2:

```
interface Loopback0
 ip address 2.2.2.1 255.255.255.0
 no ip directed-broadcast
!
interface Serial3/0
 ip address 10.1.1.2 255.255.255.0
 no ip directed-broadcast
 physical-layer speed 2048000
!
interface Serial3/2
 ip address 11.1.1.1 255.255.255.0
 no ip directed-broadcast
 physical-layer speed 2048000
!
router bgp 200
 no synchronization
 bgp log-neighbor-changes
```

```

neighbor 10.1.1.1 remote-as 100
neighbor 11.1.1.2 remote-as 200
neighbor 11.1.1.2 next-hop-self
!
DUT3:
interface Loopback0
ip address 3.3.3.1 255.255.255.0
no ip directed-broadcast
!
interface FastEthernet0/0
ip address 192.168.100.1 255.255.255.0
no ip directed-broadcast
!
interface Serial1/0
ip address 11.1.1.2 255.255.255.0
no ip directed-broadcast
!
router bgp 200
no synchronization
bgp log-neighbor-changes
network 192.168.100.0/24
neighbor 11.1.1.1 remote-as 200
!

```

Result : DUT can learn bgp route from neighbor, PC1 can ping PC2, all DUTs' routing table as follow:

```

DUT1#sho ip bgp
BGP table version is 0, local router ID is 1.1.1.1
Status codes: s suppressed, d damped, h history, * valid, > best, i - internal
Origin codes: i - IGP, e - EGP, ? - incomplete

   Network          Next Hop          Metric LocPrf Weight Path
* > 1.1.1.0/24      0.0.0.0           32768 i
* > 10.168.20.0/24  0.0.0.0           32768 i
* > 192.168.100.0/24 10.1.1.2           0 200 i

```

Total number of prefixes 3

```
DUT1#sho ip route
```

```

Codes: C - connected, S - static, R - RIP, B - BGP, BC - BGP connected
       D - BEIGRP, DEX - external BEIGRP, O - OSPF, OIA - OSPF inter area
       ON1 - OSPF NSSA external type 1, ON2 - OSPF NSSA external type 2
       OE1 - OSPF external type 1, OE2 - OSPF external type 2
       DHCP - DHCP type

```

VRF ID: 0

```

C    1.1.1.0/24      is directly connected, Loopback0
C    10.1.1.0/24     is directly connected, Serial3/0
C    10.168.20.0/24  is directly connected, GigaEthernet0/1
B    192.168.100.0/24 [20,0] via 10.1.1.2

```

```
DUT2_config#sho ip bgp
```

```
BGP table version is 0, local router ID is 2.2.2.1
```

```
Status codes: s suppressed, d damped, h history, * valid, > best, i - internal
```

```
Origin codes: i - IGP, e - EGP, ? - incomplete
```

Network	Next Hop	Metric	LocPrf	Weight	Path
*> 1.1.1.0/24	10.1.1.1			0 100	i
*> 10.168.20.0/24	10.1.1.1			0 100	i
*>i192.168.100.0/24	11.1.1.2	100		0	i

```
Total number of prefixes 3
```

```
DUT2_config#sho ip route
```

```
Codes: C - connected, S - static, R - RIP, B - BGP, BC - BGP connected
```

```
      D - BEIGRP, DEX - external BEIGRP, O - OSPF, OIA - OSPF inter area
```

```
      ON1 - OSPF NSSA external type 1, ON2 - OSPF NSSA external type 2
```

```
      OE1 - OSPF external type 1, OE2 - OSPF external type 2
```

```
      DHCP - DHCP type
```

```
VRF ID: 0
```

B	1.1.1.0/24	[20,0] via 10.1.1.1
C	2.2.2.0/24	is directly connected, Loopback0
C	10.1.1.0/24	is directly connected, Serial3/0
B	10.168.20.0/24	[20,0] via 10.1.1.1
C	11.1.1.0/24	is directly connected, Serial3/2
B	192.168.100.0/24	[200,0] via 11.1.1.2

```
DUT3_config#sho ip bgp
```

```
BGP table version is 0, local router ID is 3.3.3.1
```

```
Status codes: s suppressed, d damped, h history, * valid, > best, i - internal
```

```
Origin codes: i - IGP, e - EGP, ? - incomplete
```

Network	Next Hop	Metric	LocPrf	Weight	Path
*>i1.1.1.0/24	11.1.1.1	100		0 100	i
*>i10.168.20.0/24	11.1.1.1	100		0 100	i
*> 192.168.100.0/24	0.0.0.0			32768	i

```
Total number of prefixes 3
```

```
DUT3_config#sho ip route
```

```
Codes: C - connected, S - static, R - RIP, B - BGP, BC - BGP connected
```

```
      D - BEIGRP, DEX - external BEIGRP, O - OSPF, OIA - OSPF inter area
```

```
      ON1 - OSPF NSSA external type 1, ON2 - OSPF NSSA external type 2
```

```
      OE1 - OSPF external type 1, OE2 - OSPF external type 2
```

```
VRF ID: 0
```

B	1.1.1.0/24	[200,0] via 11.1.1.1
C	3.3.3.0/24	is directly connected, Loopback0
B	10.168.20.0/24	[200,0] via 11.1.1.1
C	11.1.1.0/24	is directly connected, Serial1/0
C	192.168.100.0/24	is directly connected, FastEthernet0/0