Typical Configuration Of BGP on AR28、AR46 Series Routers

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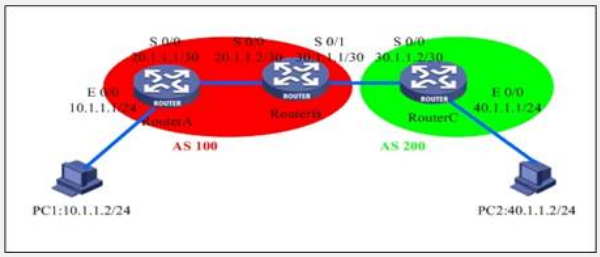
[Requirements]

IBGP runs between Router A and Router B; EBGP runs between Router B and Router C.

[Networking diagram]



[Configuration script]

Configuration script on Router A

```
#
sysname RouterA
#
router id 1.1.1.1      /Configure the router ID to be the same as loopback 0/
#
radius scheme system
#
domain system
#
interface Ethernet0/0
ip address 10.1.1.1 255.255.255.0
#
interface Serial0/0
link-protocol ppp
ip address 20.1.1.1 255.255.255.252
#
interface NULL0
#
interface LoopBack0
ip address 1.1.1.1 255.255.255.255
#
bgp 100                          /Configure the BGP in AS 100/
undo synchronization             /Configure asynchronization/
group in internal                /Configure group in/
peer in connect-interface LoopBack0
peer 1.1.1.2 group in            /Specify an IBGP peer/
#
ospf 1
area 0.0.0.0
network 1.1.1.1 0.0.0.0
network 20.1.1.0 0.0.0.3
#
user-interface con 0
user-interface vty 0 4
#
return
```

Configuration script on Router B

```
#
sysname RouterB
#
router id 1.1.1.2            /Configure the router ID to be the same as loopback 0/
#
radius scheme system
#
domain system
#
interface Seria0/0
link-protocol ppp
ip address 20.1.1.2 255.255.255.252
#
interface Serial0/1
link-protocol ppp
ip address 30.1.1.1 255.255.255.252
#
interface NULL0
#
interface LoopBack0
ip address 1.1.1.2 255.255.255.255
#
bgp 100                              /Configure the BGP in AS 100/
undo synchronization                 /Configure asynchronization/
group in internal                    /Configure group in/
peer in connect-interface LoopBack0
peer 1.1.1.1 group in                /Specify an IBGP peer/
group ex external                    /Configure group ex/
peer 30.1.1.2 group ex as-number 200   /Specify an EBGP peer/
#
ospf 1
area 0.0.0.0
network 1.1.1.2 0.0.0.0
network 20.1.1.0 0.0.0.3
#
user-interface con 0
user-interface vty 0 4
#
return
```

Configuration script on Router C

```
#
sysname RouterC
#
router id 1.1.1.3      /Configure the router ID to be the same as loopback 0/
#
radius scheme system
#
domain system
#
interface Ethernet0/0
ip address 40.1.1.1 255.255.255.0
#
interface Serial0/0
link-protocol ppp
ip address 30.1.1.2 255.255.255.252
#
interface NULL0
#
interface LoopBack0
ip address 1.1.1.3 255.255.255.255
#
bgp 200                              /Configure the BGP in AS 200/
undo synchronization                 /Configure asynchronization/
group ex external                    /Configure group ex/
peer 30.1.1.1 group ex as-number 100  /Specify an EBGP peer/
#
user-interface con 0
user-interface vty 0 4
#
return
```

[Verification]

Establish BGP peer relationships between Routers B and A and between Routers B and C

```
[RouterB]disp bgp peer
Peer        AS-num Ver Queued-Tx    Msg-Rx    Msg-Tx    Up/Down  State
------------------------------------------------------------------------------
1.1.1.1      100   4      0          4         6     00:03:32 Established
30.1.1.2     200   4      0          3         5     00:02:33 Established
```

[Tip]

1. BGP is a complex protocol. Here is only an example of the simplest BGP

configuration for future MPLS/VPN.
2. It is seldom to solely configure the BGP in the practical networking application. If a complex network scale needs to configure the BGP to advertise and control routing information, it is also unnecessary to refer to this simple example. Refer to the *Operation Manual*.
3. This example only shows how to configure the IBGP and EBGP. In actual networking applications, BGP peers can be established as long as TCP connection exists between routers. That is, BGP peers can be established as long as the devices can be pinged. IBGP and EBGP configurations differ in the AS number of peers.
4. When BGP peers are established, you can see that the state is Established by running the **disp bgp peer** command.