Typical Configuration Of OSPF Total Stub Area on AR28、AR46 Series Routers
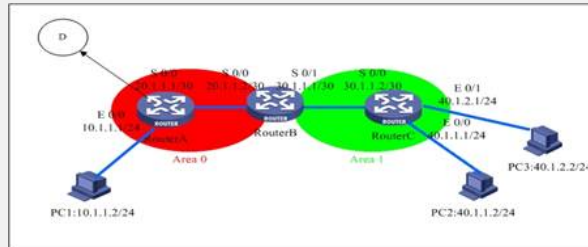
沈杨豪   2007-09-17 发表

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[Requirements]

In an OSPF AS, Routers A and B run in area 0; Routers B and C run in area 1 (total Stub area); Router B serves as the ABR.

[Networking diagram]

[Configuration script]

Configuration script on Router A
sysname RouterA # router id 1.1.1.1 # radius scheme system # domain system # interface Ethernet0/0 ip address 10.1.1.1 255.255.255.0 # interface Ethernet1/0/1 ip address 50.1.1.2 255.255.255.0 # 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 # ospf 1 import-route static   /**Import the static route**/ area 0.0.0.0 network 1.1.1.1 0.0.0.0 network 10.1.1.0 0.0.0.255 network 20.1.1.0 0.0.0.3 # ip route-static 100.1.1.0 255.255.255.0 50.1.1.1 preference 60 /**Configure the static route to 100.1.1.0/24**/ # user-interface con 0 user-interface vty 0 4 # return
Configuration script on Router B

```
#
sysname RouterB
#
router id 1.1.1.2
#
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
#
ospf 1
area 0.0.0.1
network 30.1.1.0 0.0.0.3
stub no-summary
#
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
#
radius scheme system
#
domain system
#
interface Ethernet0/0
ip address 40.1.1.1 255.255.255.0
#
interface Ethernet1/0/1
ip address 40.1.2.1 255.255.255.0
#
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
#
ospf 1
area 0.0.0.1
network 1.1.1.3 0.0.0.0
network 30.1.1.0 0.0.0.3
network 40.1.1.0 0.0.0.255
network 40.1.2.0 0.0.0.255
stub
#
user-interface con 0
user-interface vty 0 4
#
return
```

[Verification]

Routers can learn the routes of the whole network through OSPF, and their network segments can be pinged mutually.

Routing table of Router C:

[RouterC]disp ip rout

 Routing Table: public net

Destination/Mask	Protocol	Pre	Cost	Nexthop	Interface
0.0.0.0/0	OSPF	10	1563	30.1.1.1	Serial0/0
1.1.1.3/32	DIRECT	0	0	127.0.0.1	InLoopBack0
30.1.1.0/30	DIRECT	0	0	30.1.1.2	Serial0/0

30.1.1.1/32	DIRECT	0	0	30.1.1.1	Serial0/0
30.1.1.2/32	DIRECT	0	0	127.0.0.1	InLoopBack0
40.1.1.0/24	DIRECT	0	0	40.1.1.1	Ethernet0/0
40.1.1.1/32	DIRECT	0	0	127.0.0.1	InLoopBack0
40.1.2.0/24	DIRECT	0	0	40.1.2.1	Ethernet0/1
40.1.2.1/32	DIRECT	0	0	127.0.0.1	InLoopBack0
127.0.0.0/8	DIRECT	0	0	127.0.0.1	InLoopBack0
127.0.0.1/32	DIRECT	0	0	127.0.0.1	InLoopBack0

 [Tip]

1. To configure the total Stub area, it is only necessary to configure**stub no-summary** on the ABR based on the configuration of Stub area, and unnecessary to modify routers in the area.

2. In the total Stub area, only the default route advertised by the ABR is used to access the external network. No Type-3, Type-4 and Type-5 routes exist in the total Stub area.