

# Typical Configuration Of OSPF Total NSSA Area on AR28、AR46 Series Routers

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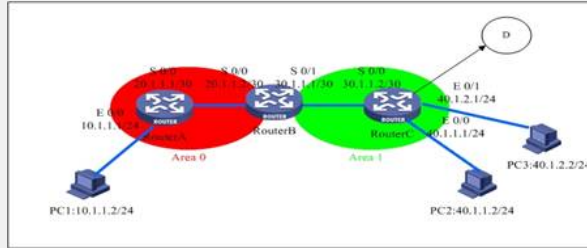
## Typical Configuration Of OSPF Total NSSA Area on AR28、AR46 Series Routers

### [Requirements]

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

The whole OSPF AS can learn the route to D that is imported by ASBR Router C.

### [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 Serial0/0
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
nssa default-route-advertise no-summary
/Configure area 1 to total NSSA area and advertise the default route to the internal area/
#
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 Ethernet1/0/2
ip address 41.1.3.1 255.255.255.0
#
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
nssa
#
ip route-static 200.1.1.0 255.255.255.0 41.1.3.2 preference 60
/Configure the static route to D/
#
#
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 routing-table
```

Routing Table: public net

| Destination/Mask | Protocol | Pre | Cost | NextHop   | Interface     |
|------------------|----------|-----|------|-----------|---------------|
| 0.0.0.0/0        | OSPF     | 10  | 1563 | 30.1.1.1  | Serial2/0/0   |
| 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  | Serial2/0/0   |
| 30.1.1.1/32      | DIRECT   | 0   | 0    | 30.1.1.1  | Serial2/0/0   |
| 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  | Ethernet1/0/0 |
| 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  | Ethernet1/0/1 |
| 40.1.2.1/32      | DIRECT   | 0   | 0    | 127.0.0.1 | InLoopBack0   |
| 41.1.3.0/24      | DIRECT   | 0   | 0    | 41.1.3.1  | Ethernet1/0/2 |
| 41.1.3.1/32      | 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   |
| 200.1.1.0/24     | STATIC   | 60  | 0    | 41.1.3.2  | Ethernet1/0/2 |

**[Tip]**

1. To configure the total NSSA, it is only necessary to configure **nssa default-route-advertise no-summary** on the ABR based on the configuration of NSSA, and unnecessary to modify routers in the area.
2. In the total NSSA, 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.