

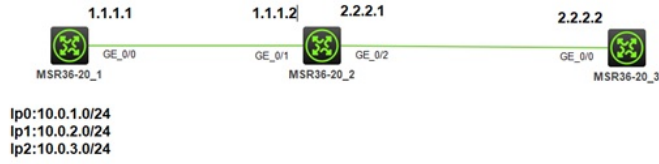
知 ComwareV7 FW OSPF外部路由过滤之5类LSA聚合

域间策略/安全域 孔德飞 2022-04-28 发表

组网及说明

如图：MSR1/MSR2/MSR3建立OSPF邻居，同属于一个区域0

MSR1上将10.0.1.0/24 10.0.2.0/24 10.0.3.0/24引入到OSPF中，要求将三条路由聚合为一条路由



配置步骤

关键配置:

```
interface GigabitEthernet0/0
port link-mode route
combo enable copper
ip address 1.1.1.1 255.255.255.0
```

```
interface LoopBack0
ip address 10.0.1.0 255.255.255.0
interface LoopBack1
ip address 10.0.2.0 255.255.255.0
interface LoopBack2
ip address 10.0.3.0 255.255.255.0
```

```
ospf 1
import-route direct
area 0.0.0.0
network 1.1.1.0 0.0.0.255
```

```
interface GigabitEthernet0/1
port link-mode route
combo enable copper
ip address 1.1.1.2 255.255.255.0
```

```
ospf 1
area 0.0.0.0
network 1.1.1.0 0.0.0.255
network 2.2.2.0 0.0.0.255
```

配置完成后, 可以看到MSR1上有三个5类LSA

```
[H3C]display ospf lsdb ase
```

```
OSPF Process 1 with Router ID 1.1.1.1
Link State Database
```

```
Type      : External
LS ID     : 10.0.2.0
Adv Rtr   : 1.1.1.1
LS age    : 425
Len       : 36
Options   : O E
Seq#      : 80000001
Checksum  : 0x84fb
Net Mask  : 255.255.255.0
TOS 0 Metric: 1
E Type    : 2
Forwarding Address : 0.0.0.0
Tag       : 1
```

```
Type      : External
LS ID     : 10.0.3.0
Adv Rtr   : 1.1.1.1
LS age    : 425
Len       : 36
Options   : O E
Seq#      : 80000001
Checksum  : 0x7906
Net Mask  : 255.255.255.0
```

TOS 0 Metric: 1
E Type : 2
Forwarding Address : 0.0.0.0

配置关键点
Tag : 1

```
ospf 1
  asbr-summary 10.0.0.0 255.255.0.0
  import-route direct
  area 0.0.0.0
    network 1.1.1.1
    network 1.1.1.2
  len 36
  options O E
  seq# 80000001
  checksum 0x8ff1
  net mask 255.255.255.0
  tos 0 metric 1
  e-type 2
  forwarding-address 0.0.0.0
  tag 1
```

在MSR上可以看到3个二类外部OSPF路由

[H3C]dis ip routing-table

Destinations : 16 Routes : 16

Destination/Mask	Proto	Pre	Cost	NextHop	Interface
0.0.0.0/32	Direct	0	0	127.0.0.1	InLoop0
1.1.1.0/24	Direct	0	0	1.1.1.2	GE0/1
1.1.1.2/32	Direct	0	0	127.0.0.1	InLoop0
1.1.1.255/32	Direct	0	0	1.1.1.2	GE0/1
2.2.2.0/24	Direct	0	0	2.2.2.1	GE0/2
2.2.2.1/32	Direct	0	0	127.0.0.1	InLoop0
2.2.2.255/32	Direct	0	0	2.2.2.1	GE0/2
10.0.1.0/24	O_ASE2	150	1	1.1.1.1	GE0/1
10.0.2.0/24	O_ASE2	150	1	1.1.1.1	GE0/1
10.0.3.0/24	O_ASE2	150	1	1.1.1.1	GE0/1

在MSR1上对3个外部LSA聚合为10.0.0.0/16

```
ospf 1
  asbr-summary 10.0.0.0 255.255.0.0
  import-route direct
  area 0.0.0.0
    network 1.1.1.0 0.0.0.255
```

配置之后MSR1上只能看到一个5类LSA

[H3C]dis ospf lsdb ase

```
OSPF Process 1 with Router ID 1.1.1.1
  Link State Database
```

```
Type : External
LS ID : 10.0.0.0
Adv Rtr : 1.1.1.1
LS age : 44
Len : 36
Options : O E
Seq# : 80000001
Checksum : 0x9ae7
Net Mask : 255.255.0.0
```

TOS 0 Metric: 1
E Type :2
Forwarding Address : 0.0.0.0