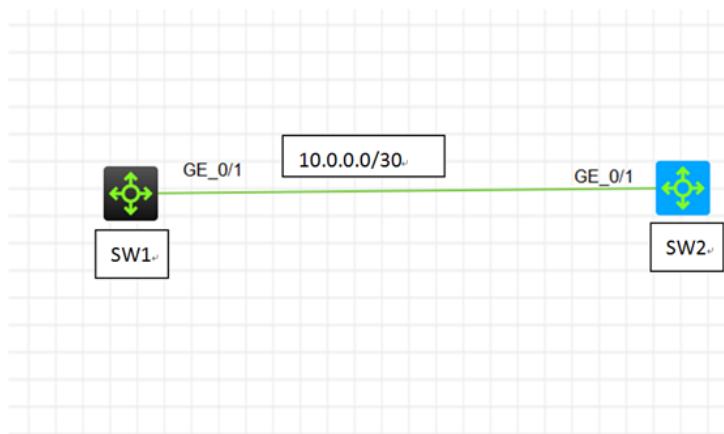


知 某局点OSPF邻居无法建立的解决办法5-HELLO: Dead-time mismatch

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组网及说明

本案例为OSPF HELLO: Dead-time mismatch的故障复现，网络拓扑图如下：



问题描述

通过dis ospf statistics error查看，具体反馈如下：

```
[SW1]dis ospf statistics error
      OSPF Process 1 with Router ID 1.1.1.1
      OSPF Packet Error Statistics

0     : Router ID confusion      0      : Bad packet
0     : Bad version            0      : Bad checksum
0     : Bad area ID           0      : Drop on unnumbered link
0     : Bad virtual link       0      : Bad authentication type
0     : Bad authentication key  0      : Packet too small
0     : Neighbor state low    0      : Transmit error
1     : Interface down        0      : Unknown neighbor
0     : HELLO: Netmask mismatch 0      : HELLO: Hello-time mismatch
25    : HELLO: Dead-time mismatch 0      : HELLO: Ebit option mismatch
0     : DD: MTU option mismatch 0      : DD: Unknown LSA type
0     : DD: Ebit option mismatch 0      : ACK: Bad ack
0     : ACK: Unknown LSA type   0      : REQ: Empty request
0     : REQ: Bad request        0      : UDP: LSA checksum bad
0     : UDP: Unknown LSA type   0      : UDP: Less recent LSA
[SW1]
```

```
[SW2]dis ospf statistics error
      OSPF Process 1 with Router ID 2.2.2.2
      OSPF Packet Error Statistics

0     : Router ID confusion      0      : Bad packet
0     : Bad version            0      : Bad checksum
0     : Bad area ID           0      : Drop on unnumbered link
0     : Bad virtual link       0      : Bad authentication type
0     : Bad authentication key  0      : Packet too small
0     : Neighbor state low    0      : Transmit error
0     : Interface down        0      : Unknown neighbor
0     : HELLO: Netmask mismatch 0      : HELLO: Hello-time mismatch
27    : HELLO: Dead-time mismatch 0      : HELLO: Ebit option mismatch
0     : DD: MTU option mismatch 0      : DD: Unknown LSA type
0     : DD: Ebit option mismatch 0      : ACK: Bad ack
0     : ACK: Unknown LSA type   0      : REQ: Empty request
0     : REQ: Bad request        0      : UDP: LSA checksum bad
0     : UDP: Unknown LSA type   0      : UDP: Less recent LSA
[SW2]
```

过程分析

根据反馈，发现SW1与SW2在HELLO: Dead-time mismatch的错误数量都有增长，可能是SW1与SW2的dead计时器不一致导致的，需要查看具体的配置：

SW1:

```
router id 1.1.1.1
#
ospf 1 router-id 1.1.1.1
area 0.0.0.0
network 1.1.1.1 0.0.0.0
network 10.0.0.1 0.0.0.0
#
interface LoopBack0
ip address 1.1.1.1 255.255.255.255
```

```
#  
interface GigabitEthernet1/0/1  
port link-mode route  
combo enable fiber  
ip address 10.0.0.1 255.255.255.252  
ospf timer dead 50  
#
```

SW2:

```
router id 2.2.2.2  
#  
ospf 1 router-id 2.2.2.2  
area 0.0.0  
network 2.2.2.2 0.0.0.0  
network 10.0.0.2 0.0.0.0  
#  
interface LoopBack0  
ip address 2.2.2.2 255.255.255.255  
#  
interface GigabitEthernet1/0/1  
port link-mode route  
combo enable fiber  
ip address 10.0.0.2 255.255.255.252  
#
```

根据SW1、SW2的配置反馈，发现SW1配置了hello的计时器为50秒，从而与SW2的dead的计时器不一致引发了OSPF无法正常建立。

解决方法

需要将SW1、SW2的dead计时器的间隔配置一致，可将SW1的hello计时器的配置去掉，也可配置SW2的dead计时器的配置为50秒，与SW1的一致。

在这里就配置SW2的dead计时器的配置为50秒，配置如下：

```
[SW2]int gi 1/0/1  
[SW2-GigabitEthernet1/0/1]ospf timer dead 50  
[SW2-GigabitEthernet1/0/1]quit
```

配置完成后，OSPF的邻居即可正常建立：

```
[SW1]dis ospf peer  
      OSPF Process 1 with Router ID 1.1.1.1  
      Neighbor Brief Information  
  
      Area: 0.0.0.0  
      Router ID          Address          Pri Dead-Time   State          Interface  
      2.2.2.2            10.0.0.2        1    37           Full/DR       GE1/0/1  
[SW1]
```

```
[SW2]dis ospf peer  
      OSPF Process 1 with Router ID 2.2.2.2  
      Neighbor Brief Information  
  
      Area: 0.0.0.0  
      Router ID          Address          Pri Dead-Time   State          Interface  
      1.1.1.1            10.0.0.1        1    34           Full/BDR      GE1/0/1  
[SW2]
```