

知 SR66因运营商线路中断后ospf邻居无法自动恢复问题

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组网及说明

SR6608---SR664

两边通过多条子接口互联

问题描述

运营商线路中断ospf，线路恢复后SR6604连接SR6608其中一个子接口ospf邻居状态异常，查看bfd状态无法建立，把bfd配置取消掉ospf邻居依旧无法建立，重启SR6604的ospf进程，ospf邻居恢复full状态。

过程分析

本端先收到另外一个子接口21.231.248.137发过来的HELLO包，因此选择先与其建立ospf邻居。

*Mar 1 05:52:52:461 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; **Source address: 21.231.248.137**

*Mar 1 05:52:52:461 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Destination address: 224.0.0.5

*Mar 1 05:52:52:461 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Version 2, Type: 1, Length: 48.

*Mar 1 05:52:52:461 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Router: 21.224.127.14, Area: 0.0.0.81, Checksum: 20253.

*Mar 1 05:52:52:461 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Authentication type: 00, Key(ASCII): 0 0 0 0 0 0 0 0.

*Mar 1 05:52:52:461 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Network mask: 255.255.255.252, Hello interval: 10, Option: _N/P_

*Mar 1 05:52:52:461 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Router priority: 1, Dead Interval: 40, DR: 0.0.0.0, BDR: 0.0.0.0.

*Mar 1 05:52:52:461 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; **Neighbor ID: 21.231.251.90.**

*Mar 1 05:52:53:803 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; **OSPF 300: Sending packets.**

*Mar 1 05:52:53:803 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; **Source address: 21.231.250.30**

*Mar 1 05:52:53:803 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Destination address: 224.0.0.5

*Mar 1 05:52:53:803 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Version 2, Type: 1, Length: 48.

*Mar 1 05:52:53:803 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Router: 21.231.251.42, Area: 0.0.0.81, Checksum: 20301.

*Mar 1 05:52:53:803 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Authentication type: 00, Key(ASCII): 0 0 0 0 0 0 0 0.

*Mar 1 05:52:53:803 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Network mask: 255.255.255.252, Hello interval: 10, Option: _N/P_

*Mar 1 05:52:53:803 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Router priority: 1, Dead Interval: 40, DR: 0.0.0.0, BDR: 0.0.0.0.

*Mar 1 05:52:53:803 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Neighbor ID: 21.24.127.14.

*Mar 1 05:52:54:460 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; **OSPF 300: Receiving packets.**

*Mar 1 05:52:54:460 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; **Source address: 21.231.250.29**

*Mar 1 05:52:54:460 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Destination address: 224.0.0.5

*Mar 1 05:52:54:460 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Version 2, Type: 1, Length: 48.

*Mar 1 05:52:54:460 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Router: 21.224.127.14, Area: 0.0.0.81, Checksum: 20301.

*Mar 1 05:52:54:460 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Authentication type: 00, Key(ASCII): 0 0 0 0 0 0 0 0.

*Mar 1 05:52:54:460 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Network mask: 255.255.255.252, Hello interval: 10, Option: _N/P_

*Mar 1 05:52:54:460 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; Router priority: 1, Dead Interval: 40, DR: 0.0.0.0, BDR: 0.0.0.0.

*Mar 1 05:52:54:460 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1; **Neighbor ID: 21.231.251.42.**

6608侧:

OSPF Process 300 with Router ID 21.224.127.14

Neighbor Brief Information

Area: 0.0.0.81

Router ID	Address	Pri	Dead-Time	State	Interface
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6604侧:

解决方法
OSPF Process 300 with Router ID 21.231.251.42

由上面可知，因为配置了ospf dr非dr，不检查网段，只跟其相连的建立邻居，SR6604收到SR6608这边各个网段的ospf hello组播报文，先收到谁就以谁来建邻居了。两端都配置peer-address-check 进行网段检查，即可规避由中间交换机或者传输导致此类问题。Interface ospf网络类型默认为broadcast的话是可以正常建立的。

21.231.248.137 1 32 Init/ - GE2/0/0
的问题是由于SR6604收到了SR6608的多个HELLO组播报文。正常的直连p2p链路我们只会收到与对配置建立的邻居关系，原因是由网段的检查功能，即在接收到报文后对报文进行与当前配置网段逐一比对(网段过中间传输或者交换机都会出现此问题)。

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OSPF: Recv packet from unknown non-shamlink/vlink nbr 21.231.248.153.
*Mar 05 03:35:00:2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1;
OSPF: Neighbor information non-shamlink/vlink nbr 21.231.248.193.
*Mar 05 03:35:03:396 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1;
OSPF: Recv Address from unknown non-shamlink/vlink nbr 21.231.248.169.
*Mar 05 03:35:04:323 2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1;
OSPF: Recv packet display non-shamlink/vlink nbr 21.231.248.157.
*Mar 05 03:35:05:2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1;
OSPF: Recv Packet from unknown non-shamlink/vlink nbr 21.231.248.21.
*Mar 05 03:35:06:2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1;
OSPF: Recv packet from unknown non-shamlink/vlink nbr 21.231.248.185.
*Mar 05 03:35:07:2022 jiningshifenhang-shengchan OSPF/7/DEBUG: -MDC=1;
OSPF: Recv packet from unknown non-shamlink/vlink nbr 21.231.248.181.
0 : Bad authentication key 0 : Packet too small
98 : Neighbor state low 0 : Transmit error
0 : Interface down 2919 : Unknown neighbor
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