

知 安全V7静态路由关联echo类型bfd配置

会话 孔梦龙 2023-12-12 发表

组网及说明

组网如下



配置步骤

安全域安全策略全通

FW1:

```
bfd echo-source-ip 9.8.7.6
#
interface GigabitEthernet1/0
port link-mode route
ip address 10.10.20.10 255.255.255.0
session log enable ipv4 inbound
session log enable ipv4 outbound
bfd min-echo-receive-interval 300
bfd detect-multiplier 3
#
ip route-static 8.8.8.8 32 GigabitEthernet1/0 10.10.20.5 bfd echo-packet
```

FW2:

```
#
interface GigabitEthernet2/0
port link-mode route
ip address 10.10.20.5 255.255.255.0
bfd min-echo-receive-interval 300
bfd detect-multiplier 3
#
```

配置关键点

BFD的抓包显示:

S是自己配置的，目的是本机出接口的，源目MAC需要本机和对端回包只需要把源目MAC调换回来即可

7	0.109433	123.123.1.1	123.123.1.2	BFD Echo	66 0x0000 (0)	Dec 12, 2023 09:59:30.706214000	中国标准时间	0
11	0.189028	123.123.1.1	123.123.1.2	BFD Contr...	66 0x0000 (0)	Dec 12, 2023 09:59:30.706214000	中国标准时间	0
12	0.210584	9.8.7.6	10.10.20.10	BFD Echo	66 0xafd2 (45010)	Dec 12, 2023 09:59:30.727770000	中国标准时间	0
13	0.210691	9.8.7.6	10.10.20.10	BFD Echo	66 0xafd2 (45010)	Dec 12, 2023 09:59:30.727877000	中国标准时间	0
15	0.288886	123.123.1.1	123.123.1.2	BFD Contr...	66 0x0000 (0)	Dec 12, 2023 09:59:30.806072000	中国标准时间	0
17	0.388954	123.123.1.1	123.123.1.2	BFD Contr...	66 0x0000 (0)	Dec 12, 2023 09:59:30.906140000	中国标准时间	0
20	0.461073	123.123.1.1	123.123.1.2	BFD Contr...	66 0x0000 (0)	Dec 12, 2023 09:59:30.978259000	中国标准时间	0
21	0.461871	9.8.7.6	10.10.20.10	BFD Echo	66 0xafd3 (45011)	Dec 12, 2023 09:59:30.979057000	中国标准时间	0
22	0.464342	9.8.7.6	10.10.20.10	BFD Echo	66 0xafd3 (45011)	Dec 12, 2023 09:59:30.981528000	中国标准时间	0
24	0.488838	123.123.1.1	123.123.1.2	BFD Contr...	66 0x0000 (0)	Dec 12, 2023 09:59:31.006024000	中国标准时间	0
29	0.588963	123.123.1.1	123.123.1.2	BFD Contr...	66 0x0000 (0)	Dec 12, 2023 09:59:31.106149000	中国标准时间	0
30	0.626981	123.123.1.1	123.123.1.2	BFD Contr...	66 0x0000 (0)	Dec 12, 2023 09:59:31.144167000	中国标准时间	0
34	0.688854	123.123.1.1	123.123.1.2	BFD Contr...	66 0x0000 (0)	Dec 12, 2023 09:59:31.206040000	中国标准时间	0
35	0.717146	9.8.7.6	10.10.20.10	BFD Echo	66 0xafd7 (45015)	Dec 12, 2023 09:59:31.234332000	中国标准时间	0
36	0.717343	9.8.7.6	10.10.20.10	BFD Echo	66 0xafd7 (45015)	Dec 12, 2023 09:59:31.234529000	中国标准时间	0
39	0.788832	123.123.1.1	123.123.1.2	BFD Contr...	66 0x0000 (0)	Dec 12, 2023 09:59:31.306018000	中国标准时间	0
42	0.826926	55.55.55.58	55.55.55.255	NBNS	92 0x242d (9261)	Dec 12, 2023 09:59:31.344112000	中国标准时间	0
43	0.827972	169.254.22.0	169.254.255.255	NBNS	92 0x6283 (25219)	Dec 12, 2023 09:59:31.345158000	中国标准时间	0
44	0.888933	123.123.1.1	123.123.1.2	BFD Contr...	66 0x0000 (0)	Dec 12, 2023 09:59:31.406119000	中国标准时间	0
47	0.986394	9.8.7.6	10.10.20.10	BFD Echo	66 0xafd9 (45017)	Dec 12, 2023 09:59:31.503580000	中国标准时间	0
49	0.000002	0.0.7.6	10.10.20.10	BFD Echo	66 0xafd0 (45017)	Dec 12, 2023 09:59:31.503580000	中国标准时间	0

```

> Frame 12: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface 0
> Ethernet II, Src: Hangzhou_1d:e9:01 (0c:da:41:1d:e9:01), Dst: Hangzhou_1d:4c:a6 (0c:da:41:1d:4c:a6)
> Internet Protocol Version 4, Src: 9.8.7.6, Dst: 10.10.20.10
> User Datagram Protocol, Src Port: 50176, Dst Port: 3785
> BFD Echo message
0000 0c da 41 1d 4c a6 0c da 41 1d e9 01 08 00 45 e0 ..4
0010 00 34 af d2 00 00 ff 11 dc e4 09 08 07 06 0a 0a ..4
0020 14 0a c4 00 0e c9 00 20 00 00 20 c8 03 18 00 00 ..
0030 84 01 00 00 84 01 00 04 93 e0 00 04 93 e0 00 04 ..
0040 93 e0 ..

```

11	0.189028	123.123.1.1	123.123.1.2	BFD Contr...	66 0x0000 (0)	Dec 12, 2023 09:59:30.706214000	中国标准时间	Diag: No
12	0.210584	9.8.7.6	10.10.20.10	BFD Echo	66 0xafd2 (45010)	Dec 12, 2023 09:59:30.727770000	中国标准时间	Originatc
13	0.210691	9.8.7.6	10.10.20.10	BFD Echo	66 0xafd2 (45010)	Dec 12, 2023 09:59:30.727877000	中国标准时间	Originatc
15	0.288886	123.123.1.1	123.123.1.2	BFD Contr...	66 0x0000 (0)	Dec 12, 2023 09:59:30.806072000	中国标准时间	Diag: No
17	0.388954	123.123.1.1	123.123.1.2	BFD Contr...	66 0x0000 (0)	Dec 12, 2023 09:59:30.906140000	中国标准时间	Diag: No
20	0.461073	123.123.1.1	123.123.1.2	BFD Contr...	66 0x0000 (0)	Dec 12, 2023 09:59:30.978259000	中国标准时间	Diag: No
21	0.461871	9.8.7.6	10.10.20.10	BFD Echo	66 0xafd3 (45011)	Dec 12, 2023 09:59:30.979057000	中国标准时间	Originatc
22	0.464342	9.8.7.6	10.10.20.10	BFD Echo	66 0xafd3 (45011)	Dec 12, 2023 09:59:30.981528000	中国标准时间	Originatc
24	0.488838	123.123.1.1	123.123.1.2	BFD Contr...	66 0x0000 (0)	Dec 12, 2023 09:59:31.006024000	中国标准时间	Diag: No
29	0.588963	123.123.1.1	123.123.1.2	BFD Contr...	66 0x0000 (0)	Dec 12, 2023 09:59:31.106149000	中国标准时间	Diag: No
30	0.626981	123.123.1.1	123.123.1.2	BFD Contr...	66 0x0000 (0)	Dec 12, 2023 09:59:31.144167000	中国标准时间	Diag: No
34	0.688854	123.123.1.1	123.123.1.2	BFD Contr...	66 0x0000 (0)	Dec 12, 2023 09:59:31.206040000	中国标准时间	Diag: No
35	0.717146	9.8.7.6	10.10.20.10	BFD Echo	66 0xafd7 (45015)	Dec 12, 2023 09:59:31.234332000	中国标准时间	Originatc
36	0.717343	9.8.7.6	10.10.20.10	BFD Echo	66 0xafd7 (45015)	Dec 12, 2023 09:59:31.234529000	中国标准时间	Originatc
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42	0.826926	55.55.55.58	55.55.55.255	NBNS	92 0x242d (9261)	Dec 12, 2023 09:59:31.344112000	中国标准时间	Name quer
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```

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> Internet Protocol Version 4, Src: 9.8.7.6, Dst: 10.10.20.10
> User Datagram Protocol, Src Port: 50176, Dst Port: 3785
> BFD Echo message
0000 0c da 41 1d e9 01 0c da 41 1d 4c a6 08 00 45 00 ..A.....A
0010 00 34 af d2 00 00 fe 11 de c4 09 08 07 06 0a 0a ..4.....
0020 14 0a c4 00 0e c9 00 20 00 00 20 c8 03 18 00 00 ..
0030 84 01 00 00 84 01 00 04 93 e0 00 04 93 e0 00 04 ..
0040 93 e0 ..

```