

知 某局点S6520X作为DHCP服务器下发地址不成功

DHCP/DHCP Relay

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组网及说明

1.组网拓扑:



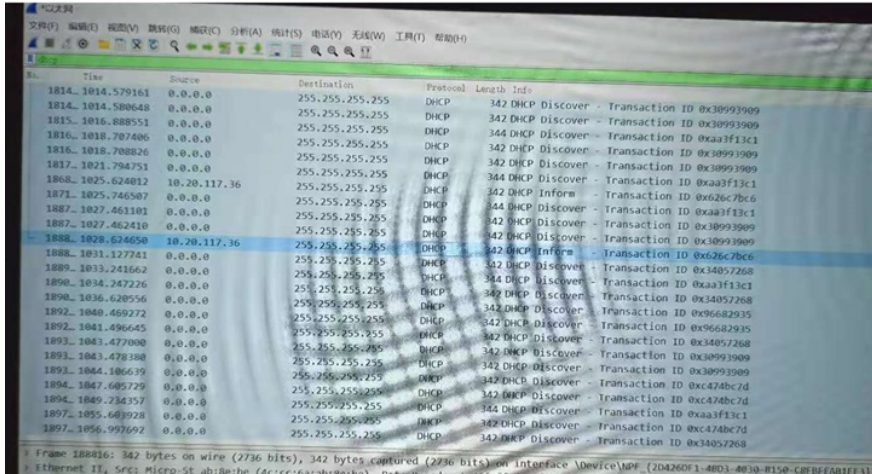
2.S6520X为DHCP服务器，客户端上连接接入交换机通过DHCP获取地址，网关也在DHCP服务器上。

问题描述

大量终端突然无法获取地址，只有几个终端可以获取到。

过程分析

1.因为DHCP服务器的接口都为光口，无法用客户端直连做测试，用接入交换机模拟客户端，在接入交换机上起了vlan三层口，获取地址为dhcp自动获取，但是也获取不到。在接入交换机上抓包发现能够发出discover包，但是没有回应。



No.	Time	Source	Destination	Protocol	Length	Info
1814.	1014.579161	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x30993909
1814.	1014.580648	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x30993909
1815.	1016.888551	0.0.0.0	255.255.255.255	DHCP	344	DHCP Discover - Transaction ID 0xaa3f13c1
1816.	1018.707406	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x30993909
1816.	1018.708826	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x30993909
1817.	1021.794751	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x30993909
1868.	1025.624012	10.20.117.36	255.255.255.255	DHCP	342	DHCP Inform - Transaction ID 0xaa3f13c1
1871.	1025.746507	0.0.0.0	255.255.255.255	DHCP	344	DHCP Discover - Transaction ID 0xaa3f13c1
1887.	1027.461101	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x30993909
1887.	1027.462410	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x30993909
1888.	1028.624058	10.20.117.36	255.255.255.255	DHCP	342	DHCP Inform - Transaction ID 0x628c28c4
1888.	1031.127741	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x34052268
1889.	1031.241662	0.0.0.0	255.255.255.255	DHCP	344	DHCP Discover - Transaction ID 0xaa3f13c1
1890.	1034.247226	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x34052268
1890.	1036.620556	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x96682935
1892.	1040.469272	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x96682935
1892.	1041.496645	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x34052268
1893.	1043.477000	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x30993909
1893.	1043.478388	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x30993909
1893.	1044.186639	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x474bc7d
1894.	1047.695729	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x474bc7d
1894.	1049.234537	0.0.0.0	255.255.255.255	DHCP	344	DHCP Discover - Transaction ID 0xaa3f13c1
1897.	1055.607028	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0xc474bc7d
1897.	1056.997692	0.0.0.0	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID 0x34052268

2.后发现服务器做了portal认证，客户在portal认证中free-ip 配置匹配任何源报文，导致DHCP的报文被匹配走，DHCP服务器无法获取discover报文因此无法下发ip。

portal free-rule 1 destination ip 210.32.32.1 255.255.255.255

portal free-rule 2 destination ip 210.32.32.10 255.255.255.255

portal free-rule 3 destination ip 192.168.112.30 255.255.255.255

portal free-rule 4 source ip any

portal free-rule 5 source ip 10.20.111.224 255.255.255.224

portal free-rule 10 source ip 10.20.112.224 255.255.255.224

portal free-rule 15 source ip 10.20.113.224 255.255.255.224

portal free-rule 20 source ip 10.20.114.224 255.255.255.224

portal free-rule 25 source ip 10.20.116.224 255.255.255.224

portal free-rule 30 source ip 10.20.117.224 255.255.255.224

portal free-rule 35 source ip 10.20.118.224 255.255.255.224

portal free-rule 40 source ip 10.20.119.224 255.255.255.224

portal free-rule 100 source ip 10.20.118.68 255.255.255.255 destination ip any

解决方法

根据需求，修改portal认证中free-ip匹配固定sip，是的DHCP DISCOVER报文可以正常上送，使得server能正常下发ip

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