

无线AC控制器portal认证（集中式或者本地转发场景）是否可以隔离二层广播？

Portal 马雷勇 2020-09-08 发表

问题描述

无线AC控制器portal认证（集中式或者本地转发场景）是否可以隔离二层广播？

解决方法

- 1、PORTAL是三层的，无法隔离二层广播
- 2、隔离广播只能通过二层用户隔离（集中转发是在ac上配置用户隔离，本地转发是在ap上map文件下发用户隔离配置）

如下测试情况（终端地址分别为192.168.200.2和192.168.200.10）

(1) 集中转发portal-----可以arp学习，无法ping通

The screenshot shows a terminal window on the left and a Wireshark packet capture on the right. The terminal shows a successful ARP request from 192.168.200.10 to 192.168.200.2, but subsequent ping attempts fail. The Wireshark capture shows the ARP request and response, and the ICMP Echo (ping) request and reply.

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	fe80::6d1f:18a7:adf...:ff02::1:2		DHCPv6	170	Solicit XID: 0x...
2	9.540882	dc:1b:a1:0c:a3:00	Broadcast	ARP	42	who has 192.168...
3	10.219094	dc:1b:a1:0c:a3:00	Broadcast	ARP	42	who has 192.168...
4	11.229405	dc:1b:a1:0c:a3:00	Broadcast	ARP	42	who has 192.168...
5	11.382025	XiaomiCo_7e:00:63	dc:1b:a1:0c:a3:00	ARP	42	192.168.200.2 i...
6	11.382059	192.168.200.10	192.168.200.2	ICMP	74	Echo (ping) req...
7	14.236414	192.168.200.10	192.168.200.2	ICMP	74	Echo (ping) req...
8	19.234562	192.168.200.10	192.168.200.2	ICMP	74	Echo (ping) req...
9	24.240313	192.168.200.10	192.168.200.2	ICMP	74	Echo (ping) req...

(2) 本地转发portal-----可以arp学习，无法ping通

The screenshot shows a terminal window on the left and a Wireshark packet capture on the right. The terminal shows a successful ARP request from 192.168.200.10 to 192.168.200.2, but subsequent ping attempts fail. The Wireshark capture shows the ARP request and response, and the ICMP Echo (ping) request and reply.

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	dc:1b:a1:0c:a3:00	Broadcast	ARP		
2	0.700005	dc:1b:a1:0c:a3:00	Broadcast	ARP		
3	1.701423	dc:1b:a1:0c:a3:00	Broadcast	ARP		
4	2.714149	dc:1b:a1:0c:a3:00	Broadcast	ARP		
5	3.705928	dc:1b:a1:0c:a3:00	Broadcast	ARP		
6	3.893418	XiaomiCo_7e:00:63	dc:1b:a1:0c:a3:00	ARP		
7	3.893499	192.168.200.10	192.168.200.2	ICMP		
8	7.719036	192.168.200.10	192.168.200.2	ICMP		
9	12.725604	192.168.200.10	192.168.200.2	ICMP		
10	17.717254	192.168.200.10	192.168.200.2	ICMP		

(3) 集中转发portal + ac用户隔离-----arp无法学习，隔离广播

The screenshot shows a terminal window on the left and a Wireshark packet capture on the right. The terminal shows that ARP learning fails for 192.168.200.2. The Wireshark capture shows a broadcast ARP request that is not learned by the terminal.

No.	Time	Source	Destination	Protocol	Length	Info
13	11.754569	dc:1b:a1:0c:a3:00	Broadcast	ARP		
14	12.751529	dc:1b:a1:0c:a3:00	Broadcast	ARP		
15	13.753568	dc:1b:a1:0c:a3:00	Broadcast	ARP		
16	14.746658	dc:1b:a1:0c:a3:00	Broadcast	ARP		
17	15.753540	dc:1b:a1:0c:a3:00	Broadcast	ARP		
18	16.745796	dc:1b:a1:0c:a3:00	Broadcast	ARP		
19	17.745863	dc:1b:a1:0c:a3:00	Broadcast	ARP		
20	18.752512	dc:1b:a1:0c:a3:00	Broadcast	ARP		
21	19.745537	dc:1b:a1:0c:a3:00	Broadcast	ARP		
22	20.748774	dc:1b:a1:0c:a3:00	Broadcast	ARP		
23	21.756748	dc:1b:a1:0c:a3:00	Broadcast	ARP		
24	22.743813	dc:1b:a1:0c:a3:00	Broadcast	ARP		
25	23.749311	dc:1b:a1:0c:a3:00	Broadcast	ARP		
26	24.744438	dc:1b:a1:0c:a3:00	Broadcast	ARP		
27	25.752568	dc:1b:a1:0c:a3:00	Broadcast	ARP		

(4) 本地转发portal + ap用户隔离-----arp无法学习，隔离广播

The screenshot shows a terminal window on the left and a Wireshark packet capture on the right. The terminal shows that ARP learning fails for 192.168.200.2. The Wireshark capture shows a broadcast ARP request that is not learned by the terminal.

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	dc:1b:a1:0c:a3:00	Broadcast	ARP	42	who has
2	0.639241	dc:1b:a1:0c:a3:00	Broadcast	ARP	42	who has
3	1.633075	dc:1b:a1:0c:a3:00	Broadcast	ARP	42	who has
4	2.645380	dc:1b:a1:0c:a3:00	Broadcast	ARP	42	who has
5	3.636594	dc:1b:a1:0c:a3:00	Broadcast	ARP	42	who has
6	4.175640	fe80::6d1f:18a7:adf...:ff02::1:2		DHCPv6	170	Solicit
7	4.637243	dc:1b:a1:0c:a3:00	Broadcast	ARP	42	who has
8	5.636152	dc:1b:a1:0c:a3:00	Broadcast	ARP	42	who has
9	6.632831	dc:1b:a1:0c:a3:00	Broadcast	ARP	42	who has
10	7.642687	dc:1b:a1:0c:a3:00	Broadcast	ARP	42	who has
11	8.638234	dc:1b:a1:0c:a3:00	Broadcast	ARP	42	who has
12	9.632102	dc:1b:a1:0c:a3:00	Broadcast	ARP	42	who has
13	10.643555	dc:1b:a1:0c:a3:00	Broadcast	ARP	42	who has
14	11.643456	dc:1b:a1:0c:a3:00	Broadcast	ARP	42	who has