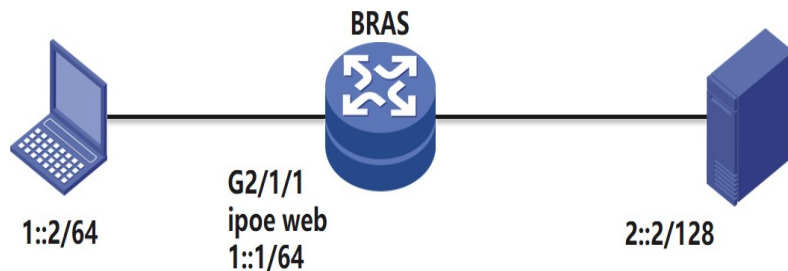


知 CR16010-F ipoe web用户获取ipv6地址后无法ping通DNS

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组网及说明



BRAS做IPOE WEB接入，终端通过DHCPv6获取地址。

问题描述

终端通过DHCPv6获取到地址1::2/64后无法弹出web认证页面，进一步确认到1::2/64无法ping通DNS地址2::2/128，存在异常。

过程分析

首先查看BRAS上的用户会话，display ip subscriber session ipv6 1::2，发现该用户正常位于认证前域，携带的user-group属性正常，BRAS全局qos策略针对该user-group放通了到DNS的报文。即BRAS配置上没有问题。

在BRAS的认证口抓包，发现终端虽然DHCPv6获取到ipv6地址，但没有发送RS报文请求网关地址。正常情况下，终端会发RS请求网关，网关会回应RA，之后终端能够发包给网关。

Time	Source	Destination	Protocol	Length	Destination Port	Info
494	10.3366130	Fe80::5956:aa4c:628ff02::12	DHCPv6	174		Solicit XID: 0x683a8d CID: 000100011ed808aa448500b5cae3
495	10.3404240	Fe80::5956:aa4c:628ff02::16	ICMPv6	90		Multicast Listener Report Message v2
499	10.3457210	Fe80::5956:aa4c:628ff02::16	DHCPv6	152		Advertise XID: 0x683a8d CID: 000100011ed808aa448500b5cae3 IAA: 2402:F000:6:fc80:808::3
507	10.6625780	Fe80::5956:aa4c:628ff02::2	ICMPv6	70		Router solicitation from dc:4a:3e:5e:89:5b
508	10.6626090	Fe80::5956:aa4c:628ff02::16	ICMPv6	130		Multicast Listener Report Message v2
509	10.6637830	Fe80::5956:aa4c:628ff02::16	ICMPv6	86		Router advertisement from 7c3a:06:0c:d0:02
525	11.3458710	Fe80::5956:aa4c:628ff02::12	DHCPv6	220		Request XID: 0x683a8d CID: 000100011ed808aa448500b5cae3 IAA: 2402:F000:6:fc80:808::3
526	11.3562250	Fe80::5956:aa4c:628ff02::16	DHCPv6	247		Reply XID: 0x683a8d CID: 000100011ed808aa448500b5cae3 IAA: 2402:F000:6:fc80:808::3

在异常终端所在的G2/1/1接口抓包，发现终端没有发出RS，导致终端没有网关本地链路地址，无法发出ping DNS的报文。

744	8.93860100	Fe80::71d1:3987:bc8ff02::12	DHCPv6	153		Solicit XID: 0xf253a2 CID: 00010001243b6f64a0c589e2c601
745	8.94275900	Fe80::71d1:3987:bc8ff02::16	ICMPv6	90		Multicast Listener Report Message v2
749	8.94382600	Fe80::71d1:3987:bc8ff02::16	DHCPv6	231		Advertise XID: 0xf253a2 CID: 00010001243b6f64a0c589e2c601 IAA: 2402:F000:6:fc80:808::6
751	9.00047200	Fe80::71d1:3987:bc8ff02::16	ICMPv6	90		Multicast Listener Report Message v2
783	9.94665400	Fe80::71d1:3987:bc8ff02::12	DHCPv6	199		Request XID: 0xf253a2 CID: 00010001243b6f64a0c589e2c601 IAA: 2402:F000:6:fc80:808::6
784	9.95328200	Fe80::71d1:3987:bc8ff02::16	DHCPv6	226		Reply XID: 0xf253a2 CID: 00010001243b6f64a0c589e2c601 IAA: 2402:F000:6:fc80:808::6
785	9.95495300	Fe80::71d1:3987:bc8ff02::16	ICMPv6	90		Multicast Listener Report Message v2
786	9.95660700	Fe80::71d1:3987:bc8ff02::16	ICMPv6	90		Multicast Listener Report Message v2

解决方法

可以在BRAS侧，通过配置ipv6 nd ra interval加快主动发ra报文，即使终端不发起RS，也能收到BRAS发出的RA后得到网关。