

MSR路由器 IPv6 ISATAP隧道功能的配置

关键字: MSR;IPv6;ISATAP;隧道

一、组网需求

将IPv4网络中的IPv6主机通过ISATAP隧道接入到IPv6网络，而不需配置手工隧道。

设备清单: RTA (MSR20-21) , RTB (MSR20-20) ,RTC (MSR30-20)

适用版本: Version 5.20, Beta 1105

二、组网图

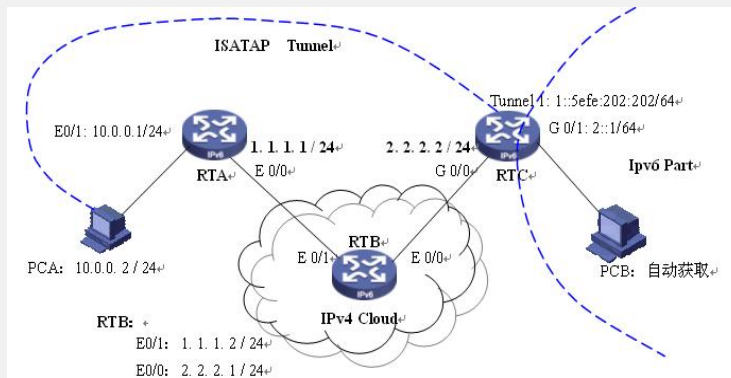


图1 IPv6 ISATAP隧道组网图

IP地址列表:

设备	接口	Ipv4地址	V6地址
RTA	E0/0	2.2.2.2/24	
	E0/1	10.0.0.1/24	
RTB	E0/0	2.2.2.1/24	
	E0/1	1.1.1.2/24	
RTC	G0/0	2.2.2.2/24	
	G0/1		2::1/64
	Tunnel1		1::5EFE:202:202/64
PCA		10.0.0.2/24	
PCB			通过无状态地址自动配置

三、配置步骤

```

RTA配置
#
router id 1.1.1.1
#
ipv6
#
interface Ethernet0/0
port link-mode route
ip address 1.1.1.1 255.255.255.0
#
interface Ethernet0/1
port link-mode route
ip address 10.0.0.1 255.255.255.0
#
ospf 1
area 0.0.0.0
network 1.1.1.0 0.0.0.255
network 10.0.0.0 0.0.0.255

RTB配置
    
```

```
#
router id 2.2.2.2
#
ipv6
#
interface Ethernet0/0
port link-mode route
ip address 2.2.2.1 255.255.255.0
#
interface Ethernet0/1
port link-mode route
ip address 1.1.1.2 255.255.255.0
#
ospf 1
area 0.0.0.0
network 1.1.1.0 0.0.0.255
network 2.2.2.0 0.0.0.255
```

RTC配置

```
#
router id 3.3.3.3
#
ipv6
#
interface GigabitEthernet0/0
port link-mode route
ip address 2.2.2.2 255.255.255.0
#
interface GigabitEthernet0/1
port link-mode route
ipv6 address 2::1/64
undo ipv6 nd ra halt
//ISATAP隧道部分配置
#
interface Tunnel1
ipv6 address 1::5EFE:202:202/64
ipv6 nd ra router-lifetime 9000
undo ipv6 nd ra halt
tunnel-protocol ipv6-ipv4 isatap
source 2.2.2.2
#
ospf 1
area 0.0.0.0
network 2.2.2.0 0.0.0.255
network 4.4.4.0 0.0.0.255
```

四、配置关键点

1. 注意ISATAP隧道接口地址的格式。
2. 保证v4网络路由可达。

五、结果验证

From RTC ping PC1's IPv6 address:

从RTC上pingPCA自动获取的Ipv6地址可以ping通，结果如下：

```
[RTC-2921]ping ipv 1::5efe:10.0.0.2
PING 1::5efe:10.0.0.2 : 56 data bytes, press CTRL_C to break
  Reply from 1::5EFE:A00:2
    bytes=56 Sequence=1 hop limit=64 time = 2 ms
  Reply from 1::5EFE:A00:2
    bytes=56 Sequence=2 hop limit=64 time = 2 ms
  Reply from 1::5EFE:A00:2
    bytes=56 Sequence=3 hop limit=64 time = 2 ms
  Reply from 1::5EFE:A00:2
    bytes=56 Sequence=4 hop limit=64 time = 1 ms
  Reply from 1::5EFE:A00:2
    bytes=56 Sequence=5 hop limit=64 time = 1 ms

--- 1::5efe:10.0.0.2 ping statistics ---
 5 packet(s) transmitted
 5 packet(s) received
 0.00% packet loss
 round-trip min/avg/max = 1/1/2 ms
```