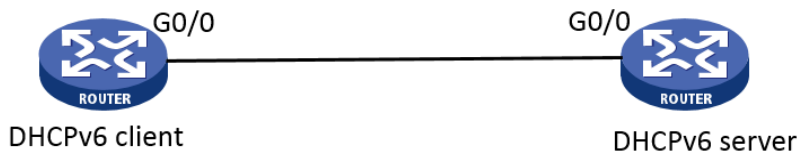


知 MSR(V5)系列路由器无状态方式下发IPv6地址+DHCPv6下发DNS等其他参数

IPv6 DHCP 高贵贤 2015-10-19 发表

DHCPv6服务器可以为已经具有IPv6地址/前缀的客户端分配其他网络配置参数，该过程称为DHCPv6无状态配置。

DHCPv6客户端通过地址无状态自动配置功能成功获取IPv6地址后，如果接收到的RA（Router Advertisement，路由器通告）报文中M标志位（Managed address configuration flag，被管理地址配置标志位）为0、O标志位（Other stateful configuration flag，其他配置标志位）为1，则DHCPv6客户端会自动启动DHCPv6无状态配置功能，以获取除地址/前缀外的其他网络配置参数



图一：DHCPv6无状态下发地址组网图

Client配置：

```
interface GigabitEthernet0/0
port link-mode route
ipv6 address auto
```

server配置：

```
interface GigabitEthernet0/0
port link-mode route
undo ipv6 nd ra halt
ipv6 nd autoconfig other-flag
ipv6 address 1::1/64
ip address 10.1.2.1 255.255.255.0
ipv6 dhcp server apply pool 1
```

结果显示：

```
[client]display ipv6 dhcp client interface g0/0
GigabitEthernet0/0 is in stateless DHCPv6 client mode
State is OPEN
Preferred Server:
  Reachable via address   : FE80::3EE5:A6FF:FE18:ECC8
  DUID                   : 000300013ce5a618ecca
  DNS servers            : 3::3
  Domain names           : gaoguixian
```

```
[R3]display ipv6 interface brief
GigabitEthernet0/0 up up 1::3EE5:A6FF:FE18:EAC8
```

测试连通性：

```
[client]ping ipv6 1::1
PING 1::1 : 56 data bytes, press CTRL_C to break
Reply from 1::1
bytes=56 Sequence=0 hop limit=64 time = 5 ms
Reply from 1::1
```

bytes=56 Sequence=1 hop limit=64 time = 1 ms

Reply from 1::1

bytes=56 Sequence=2 hop limit=64 time = 1 ms

Reply from 1::1

bytes=56 Sequence=3 hop limit=64 time = 1 ms

Reply from 1::1

bytes=56 Sequence=4 hop limit=64 time = 1 ms

--- 1::1 ping statistics ---

5 packet(s) transmitted

5 packet(s) received

0.00% packet loss

round-trip min/avg/max = 1/1/5 ms

1: MSR (V5) 设备作为客户端，只能作为无状态获取客户端

2: 若使用windows作为DHCPv6客户端，则可能会出现DNS地址无法显示，以及无法ping通无状态地址的问题，这个是客户端问题导致