

## RIP v1的配置

开启RIP，并通告相关网段

[Route A]rip 1

[Route A-rip-1]network 10.0.0.0

查看路由表

[Route A]display ip routing-table

Route Flags: R - relay, D - download to fib

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Routing Tables: Public

Destinations : 11 Routes : 11

Destination/Mask Proto Pre Cost Flags NextHop Interface

10.0.1.1/32 Direct 0 0 D 127.0.0.1 LoopBack0

10.0.2.2/32 RIP 100 1 D 10.0.12.2 GigabitEthernet 0/0/0

10.0.3.3/32 RIP 100 2 D 10.0.12.2 GigabitEthernet 0/0/0

10.0.12.0/24 Direct 0 0 D 10.0.12.1 GigabitEthernet 0/0/0

10.0.12.1/32 Direct 0 0 D 127.0.0.1 GigabitEthernet 0/0/0

10.0.12.255/32 Direct 0 0 D 127.0.0.1 GigabitEthernet 0/0/0

10.0.23.0/24 RIP 100 1 D 10.0.12.2 GigabitEthernet 0/0/0

127.0.0.0/8 Direct 0 0 D 127.0.0.1 InLoopBack0

127.0.0.1/32 Direct 0 0 D 127.0.0.1 InLoopBack0

127.255.255.255/32 Direct 0 0 D 127.0.0.1 InLoopBack0

255.255.255.255/32 Direct 0 0 D 127.0.0.1 InLoopBack0

PING测10.0.3.3，测试正常，RIP v1配置完成

[Route A]ping 10.0.3.3

PING 10.0.3.3: 56 data bytes, press CTRL\_C to break

Request time out

Reply from 10.0.3.3: bytes=56 Sequence=2 ttl=254 time=30 ms

Reply from 10.0.3.3: bytes=56 Sequence=3 ttl=254 time=30 ms

Reply from 10.0.3.3: bytes=56 Sequence=4 ttl=254 time=40 ms

Reply from 10.0.3.3: bytes=56 Sequence=5 ttl=254 time=20 ms

--- 10.0.3.3 ping statistics ---

5 packet(s) transmitted

4 packet(s) received

20.00% packet loss

round-trip min/avg/max = 20/30/40 ms

## RIP v2的配置

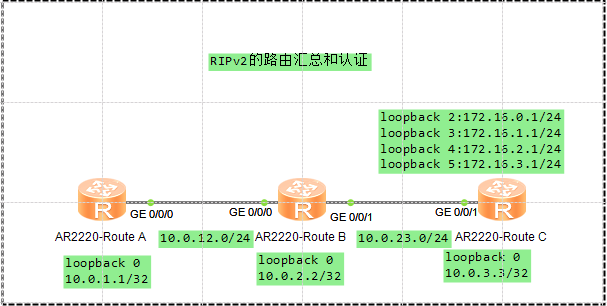
RIP v2的只要配置时选择成版本2即可，验证部分这里省略。

[Route A]rip 1

[Route A-rip-1]version 2

[Route A-rip-1]network 10.0.0.0

## RIP v2路由汇总和认证



### RIP v2的路由汇总

路由汇总配置前Route A的路由表

<Route A>display ip routing-table

Route Flags: R - relay, D - download to fib

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Routing Tables: Public

Destinations : 15 Routes : 15

Destination/Mask Proto Pre Cost Flags NextHop Interface

10.0.1.1/32 Direct 0 0 D 127.0.0.1 LoopBack0

10.0.2.2/32 RIP 100 1 D 10.0.12.2 GigabitEthernet 0/0/0

10.0.3.3/32 RIP 100 2 D 10.0.12.2 GigabitEthernet 0/0/0

10.0.12.0/24 Direct 0 0 D 10.0.12.1 GigabitEthernet 0/0/0

10.0.12.1/32 Direct 0 0 D 127.0.0.1 GigabitEthernet 0/0/0

10.0.12.255/32 Direct 0 0 D 127.0.0.1 GigabitEthernet 0/0/0

10.0.23.0/24 RIP 100 1 D 10.0.12.2 GigabitEthernet 0/0/0

127.0.0.0/8 Direct 0 0 D 127.0.0.1 InLoopBack0

127.0.0.1/32 Direct 0 0 D 127.0.0.1 InLoopBack0

127.255.255.255/32 Direct 0 0 D 127.0.0.1 InLoopBack0

172.16.0.0/24 RIP 100 2 D 10.0.12.2 GigabitEthernet 0/0/0

172.16.1.0/24 RIP 100 2 D 10.0.12.2 GigabitEthernet 0/0/0

172.16.2.0/24 RIP 100 2 D 10.0.12.2 GigabitEthernet 0/0/0

172.16.3.0/24 RIP 100 2 D 10.0.12.2 GigabitEthernet 0/0/0

255.255.255.255/32 Direct 0 0 D 127.0.0.1 InLoopBack0

在Route B的Gi0/0/0端口配置路由汇总

[Route B]interface GigabitEthernet 0/0/0

[Route B-GigabitEthernet0/0/0]rip summary-address 172.16.0.0 255.255.0.0

路由汇总配置后Route A的路由表，之前的四条路由条目汇聚成一条

<Route A>dis ip routing-table

Route Flags: R - relay, D - download to fib

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Routing Tables: Public

Destinations : 12 Routes : 12

Destination/Mask Proto Pre Cost Flags NextHop Interface

10.0.1.1/32 Direct 0 0 D 127.0.0.1 LoopBack0

10.0.2.2/32 RIP 100 1 D 10.0.12.2 GigabitEthernet 0/0/0

10.0.3.3/32 RIP 100 2 D 10.0.12.2 GigabitEthernet 0/0/0

10.0.12.0/24 Direct 0 0 D 10.0.12.1 GigabitEthernet 0/0/0

10.0.12.1/32 Direct 0 0 D 127.0.0.1 GigabitEthernet 0/0/0

10.0.12.255/32 Direct 0 0 D 127.0.0.1 GigabitEthernet 0/0/0

10.0.23.0/24 RIP 100 1 D 10.0.12.2 GigabitEthernet 0/0/0

127.0.0.0/8 Direct 0 0 D 127.0.0.1 InLoopBack0

127.0.0.1/32 Direct 0 0 D 127.0.0.1 InLoopBack0

127.255.255.255/32 Direct 0 0 D 127.0.0.1 InLoopBack0

172.16.0.0/16 RIP 100 2 D 10.0.12.2 GigabitEthernet0/0/0

255.255.255.255/32 Direct 0 0 D 127.0.0.1 InLoopBack0

### RIP v2的认证

在Route A和Route B之间配置明文认证，在Route B和Route C之间配置MD5认证

[Route A]interface GigabitEthernet 0/0/0

[Route A-GigabitEthernet0/0/0]rip authentication-mode simple plain Huawei

[Route B]interface GigabitEthernet 0/0/0

[Route B-GigabitEthernet0/0/0]rip authentication-mode simple plain Huawei

[Route Cinterface GigabitEthernet 0/0/1

[Route C-GigabitEthernet0/0/1]rip authentication-mode md5 usual plain huawei

[Route Cinterface GigabitEthernet 0/0/1

[Route C-GigabitEthernet0/0/1]rip authentication-mode md5 usual plain huawei

Ps



可以擦除旧的路由表