

HCIA 实验 11 PPP

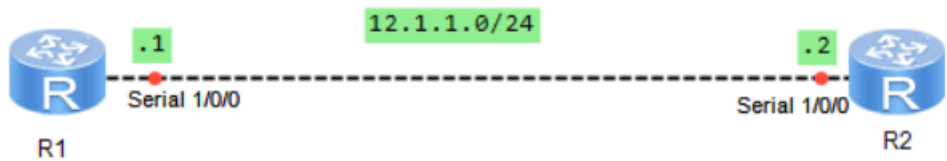
版本 V1.0

密级 ☒开放 ☐内部 ☐机密

类型 ☐讨论版 ☐测试版 ☒正式版

修订记录				
修订日期	修订人	版本号	审核人	修订说明
2019-11-14	Ryan	1.0		

1 实验拓扑



2 实验需求

1. 如图所示，配置设备名称和IP地址
2. R1与R2使用PPP协议互联
3. R1的ip地址手动配置，R2的ip地址使用ppp协议由R1分配，地址为12.1.1.2
4. R1为认证方，R2为被认证方，使用CHAP认证，并满足以下需求:
 - a) R1上使用AAA管理用户名和密码

- b) 用户名spoto, 密码huawei
- c) 仅允许服务类型PPP

3 配置思路及验证结果

3.1 在 R1 上配置 AAA

R1

```
[Huawei] sysname R1
[R1] aaa
[R1-aaa] local-user spoto password cipher huawei
[R1-aaa] local-user spoto service-type ppp
```

3.2 在 R1 上地址、CHAP 认证和给对端分配地址

R1

```
[R1] interface s1/0/0
[R1-Serial1/0/0] ip address 12.1.1.1 24
[R1-Serial1/0/0] ppp authentication-mode chap
[R1-Serial1/0/0] remote address 12.1.1.2
```

3.3 在 R2 上配置 CHAP 认证及用自动方式获取 IP 地址

R2

```
[Huawei] system R2
[R2] interface s1/0/0
[R2-Serial1/0/0] ip address ppp-negotiate
[R2-Serial1/0/0] ppp chap user spoto
[R2-Serial1/0/0] ppp chap password cipher huawei
```

3.4 验证实验结果

R2 可以获取到地址

```
[R2]dis ip int b
*down: administratively down
^down: standby
(l): loopback
(s): spoofing
The number of interface that is UP in Physical is 2
The number of interface that is DOWN in Physical is 4
The number of interface that is UP in Protocol is 2
The number of interface that is DOWN in Protocol is 4
```

Interface	IP Address/Mask	Physical	Protocol
GigabitEthernet0/0/0	unassigned	down	down
GigabitEthernet0/0/1	unassigned	down	down
GigabitEthernet0/0/2	unassigned	down	down
NULL0	unassigned	up	up(s)
Serial1/0/0	12.1.1.2/32	up	up
Serial1/0/1	unassigned	down	down

```
[R2]dis interface s1/0/0
Serial1/0/0 current state : UP
Line protocol current state : UP
Last line protocol up time : 2019-11-19 16:09:53 UTC-08:00
Description:HUAWEI, AR Series, Serial1/0/0 Interface
Route Port,The Maximum Transmit Unit is 1500, Hold timer is 10(sec)
Internet Address is negotiated, 12.1.1.2/32
Link layer protocol is PPP
LCP opened, IPCP opened
Last physical up time : 2019-11-19 16:00:53 UTC-08:00
Last physical down time : 2019-11-19 16:00:44 UTC-08:00
Current system time: 2019-11-19 16:13:30-08:00
Physical layer is synchronous, Virtualbaudrate is 64000 bps
Interface is DTE, Cable type is Vll, Clock mode is TC
Last 300 seconds input rate 7 bytes/sec 56 bits/sec 0 packets/sec
Last 300 seconds output rate 2 bytes/sec 16 bits/sec 0 packets/sec
```