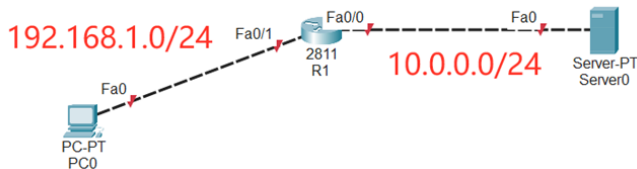


组网及说明



本案例采用思科模拟器来模拟思科路由器radius典型组网配置案例，在本案例中，服务器作为AAA服务器，R1路由器作为AAA客户端，采用radius协议来实现路由器的安全登录管理。

配置步骤

1. 按照网络拓扑图配置IP地址。
2. 在R1开启SSH功能，SSH账号为weijianing，密码weijianing
3. 在R1配置radius
4. 在服务器开启AAA功能，并创建radius账号，账号为james，密码james
5. 在AAA服务器正常时，使用radius账号才能登录R1
6. 在AAA服务器故障时，使用R1的本地账号才能登录R1

配置关键点

R1:

```
Router>ena
```

```
Router#conf t
```

Enter configuration commands, one per line. End with CNTL/Z.

```
Router(config)#hos R1
```

```
R1(config)#int f 0/1
```

```
R1(config-if)#ip address 192.168.1.1 255.255.255.0
```

```
R1(config-if)#no shutdown
```

```
R1(config-if)#exit
```

```
R1(config)#int f 0/0
```

```
R1(config-if)#ip address 10.0.0.1 255.255.255.0
```

```
R1(config-if)#no shutdown
```

```
R1(config-if)#exit
```

```
R1(config)#ip domain name h3c.com
```

```
R1(config)#aaa new-model
```

```
R1(config)#enable secret weijianing
```

```
R1(config)#crypto key generate rsa
```

The name for the keys will be: R1.h3c.com

Choose the size of the key modulus in the range of 360 to 4096 for your

General Purpose Keys. Choosing a key modulus greater than 512 may take a few minutes.

How many bits in the modulus [512]: 1024

% Generating 1024 bit RSA keys, keys will be non-exportable...[OK]

```
R1(config)#username weijianing password weijianing
```

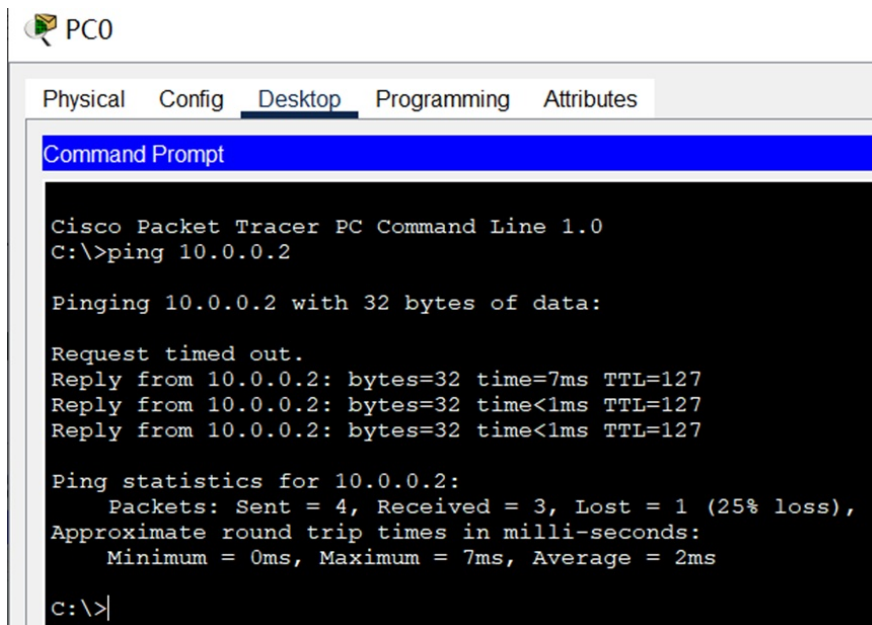
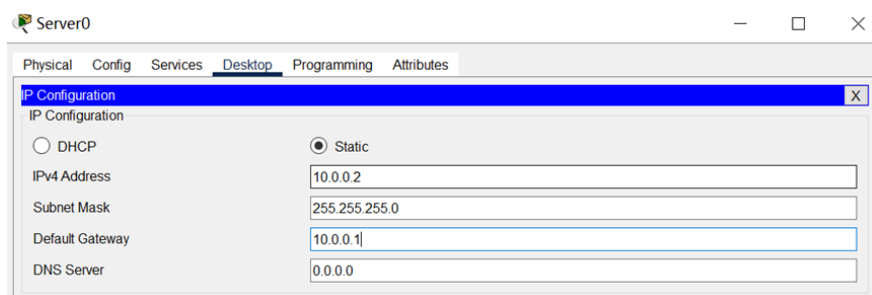
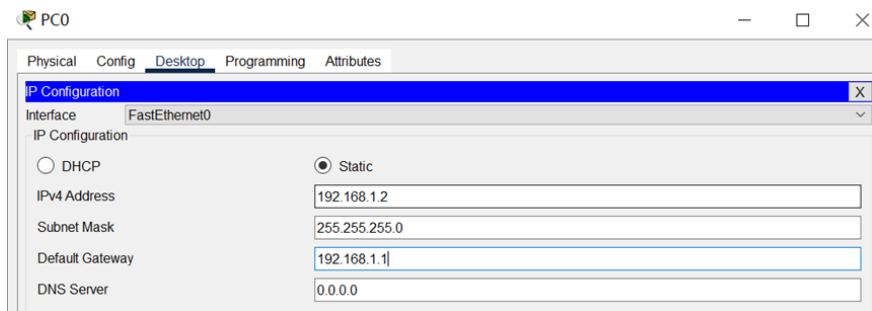
```
R1(config)#ip ssh version 2
```

```
R1(config)#ip ssh time-out 60
```

```
R1(config)#ip ssh authentication-retries 5
```

```
R1(config)#line vty 0 4
R1(config-line)#transport input ssh
R1(config-line)#exit
```

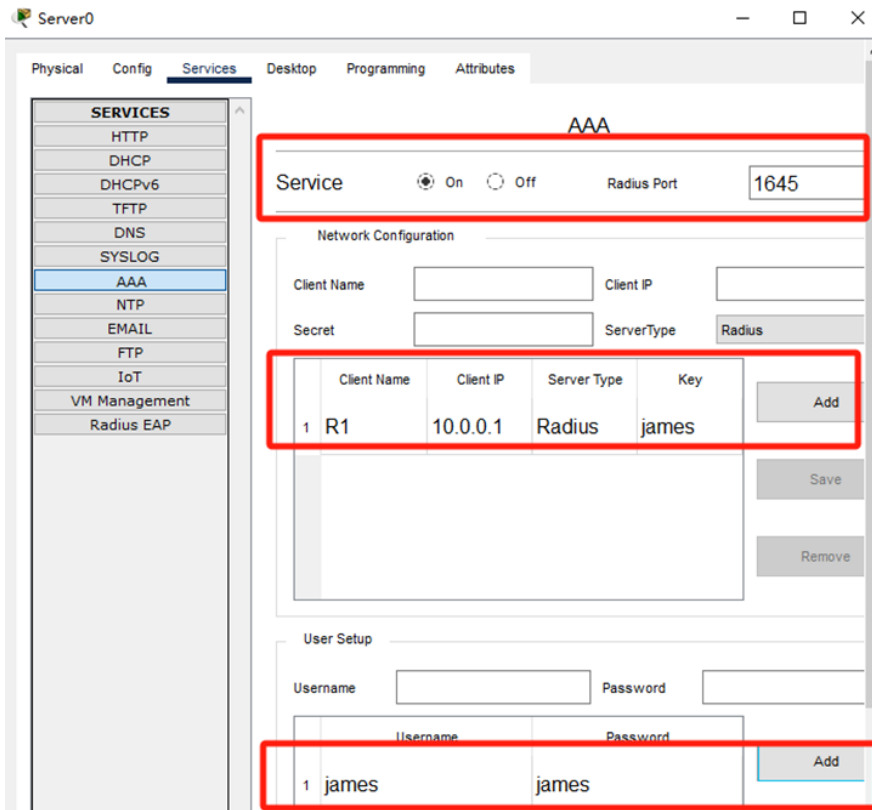
PC和服务器填写IP地址，且能相互PING通。



在R1配置radius

```
R1(config)#radius-server host 10.0.0.2
R1(config)#radius-server key james
R1(config)#aaa new-model
R1(config)#aaa authentication login default group radius local
R1(config)#line vty 0 4
R1(config-line)#login authentication default
R1(config-line)#exit
```

在服务器上启用AAA功能，并创建radius账号和密码



在PC使用radius账号james能SSH登录R1

```
C:\>ssh -l james 10.0.0.1
Password:
R1>ena
Password:
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#
```

关闭AAA服务器的AAA功能，R1无法用radius账号james登录

```
C:\>ssh -l james 10.0.0.1
Password:
% Login invalid
```

重新开启AAA服务器的AAA功能，使用radius账号james可以恢复对R1的登录。

Physical Config **Services** Desktop Programming Attributes

AAA

Service On Off Radius Port 1645

Network Configuration

Client Name Client IP

Secret ServerType Radius

	Client Name	Client IP	Server Type	Key	
1	R1	10.0.0.1	Radius	james	Add

Save Remove

User Setup

Username Password

	Username	Password	
1	james	james	Add

```
C:\>ssh -l james 10.0.0.1
Password:
R1>ena
Password:
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#
```

至此，思科路由器radius典型组网配置案例已完成。