Router Configuration Guide

hostname host1

enable password

ip domain-name user.com

username admin password 12345

crypto generate rsa?

general keys Generate a general purpose RSA key pair for signing and encryption

crypto key generate rsa

The name for the keys will be: host1.user.com
Choose the Size of the key modulus in the range of 360 to 2048 for your General Purposes Keys.
Choosing a key modulus greater than 512 may take few minutes.

How many bits in the modulus [512]:1024

%Generating 1024 bits RSA keys, keys will be non-exportable...[OK]
%SSH-5-ENABLED: SSH 1.99 has been enabled

line vty 0 15

login local

transport input ssh

exit

ip ssh version 2

Router(config)#hostname host1

This command changes the router's name to **host1** so it's easier to identify.

```
host1(config)#enable password
```

This command sets a password that will be required to access higher-level commands on the router. Note that the actual password isn't provided in this example.

```
host1(config)#ip domain-name user.com
```

This command sets the router's domain name to **user.com**. It's part of the identity of the router.

```
host1(config)#username admin password 12345
```

This command creates a user account named **admin** with the password **12345**. This account can be used to log into the router.

```
host1(config)#crypto generate rsa?
```

This command starts the process of generating RSA keys, which are used for secure communication.

```
host1(config)#crypto key generate rsa
```

This confirms that we want to generate RSA keys. RSA keys are used for encrypting data.

```
The name for the keys will be: host1.user.com
Choose the Size of the key modulus in the range of 360 to 2048 for
your General Purposes Keys.
Choosing a key modulus greater than 512 may take few minutes.
How many bits in the modulus [512]:1024
```

This step names the keys **host1.user.com** and asks how big the keys should be. Choosing 1024 bits provides a good level of security.

```
%Generating 1024 bits RSA keys, keys will be non-exportable...[OK]
%SSH-5-ENABLED: SSH 1.99 has been enabled
```

The router confirms that it has generated the keys and enabled SSH (Secure Shell) version 1.99, which allows secure remote access to the router.

```
host1(config)#line vty 0 15
```

This command selects the virtual terminal lines (0 to 15) that will be used for remote access.

```
host1(config-line)#login local
```

This command tells the router to use the locally configured user accounts (like the **admin** account we created) for login authentication.

```
host1(config-line)#transport input ssh
```

This command ensures that only SSH (and not less secure methods like Telnet) can be used to remotely access the router.

```
host1(config-line)#exit
```

This command exits from the VTY line configuration mode back to the main configuration mode.

```
host1(config)#ip ssh version 2
```

This command sets the router to use SSH version 2, which is more secure than SSH version 1.