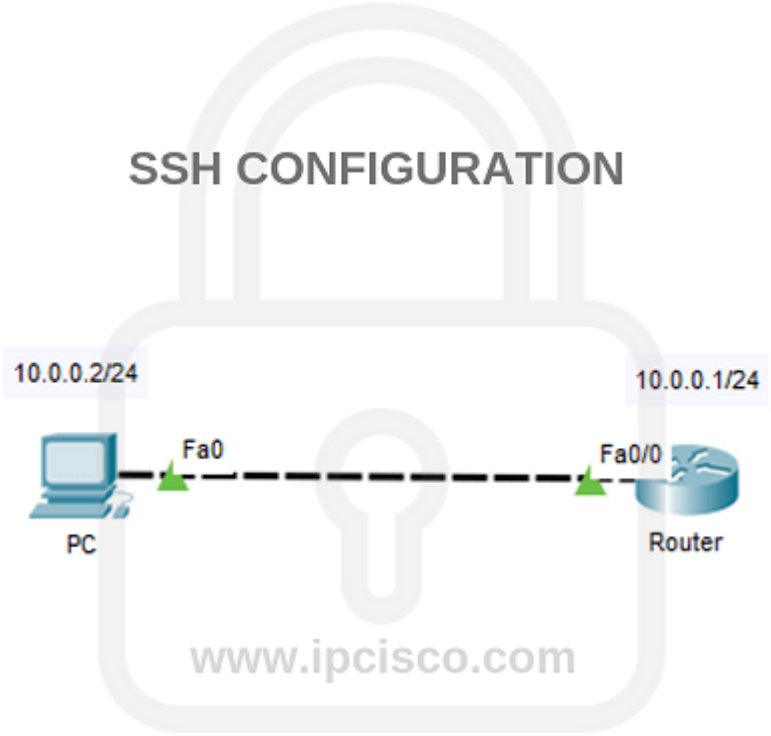
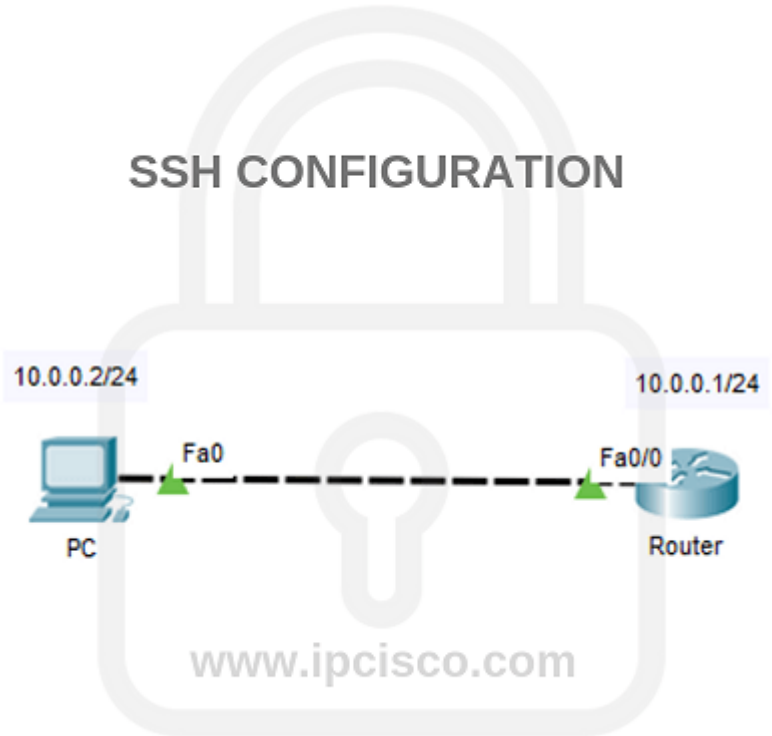
SSH Configuration on Packet Tracer



SSH Config

SSH (Secure Shell) is one of the most used protocols in network World. As a secured alternative of Telnet, SSH is always in the life of a network engineer. It helps us to connect our routers, swithces and any other network equipments. Especially because of **SSH** is more secure, it is always prefered more than **Telnet**. In this lesson, we will focus on **SSH Configuration on Cisco** routers with an **SSH Config** Example. We will learn **configuring SSH**.



So, what will be our **SSH Config** steps? In this example, we will go through the below **six** steps one by one:

1. **IP Configurations**
2. **Password Encryption**
3. **Router Name Change**
4. **Domain Data and Data Encryption**
5. **Router User Config**
6. **SSH Config**
7. **SSH Verification**

So, let's start **SSH Configuration** and see how is the backplane config of our SSH connection on routers.

IP Configurations

Before **configuring SSH**, firstly, we will configure IP addresses of router interface and the PC. We will use the below IP addresses:

Router fa0/0 Interface

IP : 10.0.0.1

Subnet : 255.255.255.0

PC

IP : 10.0.0.2

Subnet : 255.255.255.0

Gateway : 10.0.0.1

> **Router #** configure terminal
>
> **Router (config) #** interface fa0/0
>
> **Router (config-if) #** ip address 10.0.0.1 255.255.255.0
>
> **Router (config-if) #** no shutdown

Router Name Change

We need to **change the default router name** to generate rsa key. Here, the default name is Router, let's change this name to **ABC**.

> **Router (config) #** hostname ABC

Domain Name and Data Encryption

In this step, we will set the **domain name.** Our domain name will be **SSHabc**. And after that, we will encrypt the data in it with "**crypto key generate rsa**" command.

During this configuration we will set the module sizes. So we will use **512** here.

> **ABC (config) #** ip domain-name SSHabc
>
> **ABC (config)#** crypto key generate rsa general-keys modules 512

Router User Config

This step is the classical user definion on the router. We will do it with username, password and the priviledge level. Our user is **gokhan**, password is **abc123** and the priviledge mode is **15**.

> **ABC (config) #** username gokhan privilege 15 password abc123

We will use this **username** and **password** for **SSH connection**.

SSH Config

The main configuration step of this **Configuring SSH** lesson is this step. Here, we will do the SSH configuration in line mode.

Firstly, we will go to line mode and configure SSH for **16 users** from **0 to 15**. And then we will use "**transport input ssh**". This command will allow only SSH access. Telnet accesses will be rejected.

Then, we will set the login as local with "**login local**" command. With this command, we can use local router users to ssh access.

After that , we will configure the the **version** of SSH. There are two SSH versions, **SSH version 1** and **SSH version 2**. The second one provide more enhanced security agorithm. Here, we will use **SSH version 2**. To configure it, we will use "**ip ssh version 2**" command.

Lastly, we will **save** our **SSH Configuration**.

ABC (config) # line vty 0 15

ABC (config-line) # transport input ssh

ABC (config-line) # login local

ABC (config-line) # ip ssh version 2

ABC (config-line) # end

ABC # write

SSH Verification

At the last step of **Configuring SSH, SSH Config Example**, we can try to connect via SSH from PC to the router. To do this, we will open the command line on the PC and connect to the router with the below command. Here our Router interface ip is 10.0.0.1.

PC> ssh –l gokhan 10.0.0.1