



There are a lot of network administrator using telnet to remotely manage Cisco router and other devices. I like the way to access those devices in an encrypted mode. Using SSH is secure and transferred data, even captured is not in clear text. I also added the option to use SCP to transfer configuration files.

First, you want to check whether SSH has already been enabled.

```
CSCO-1801-192# show ip ssh
SSH Disabled - version 1.99
```

If you see the result above it obviously means that SSH has not already been enabled on this device.

On with the configuration:

You will want to configure a hostname on your router.

```
CSCO-1801-192# conf t
```

If you want to change the hostname, now it's the time to do so. Command would be `hostname Router1` I am not changing the hostname and will now configure a domain name for the device.

```
CSCO-1801-192(config)#ip domain-name bemsel.home
```

The domain name has been set. Now we want to generate a RSA key pair.

```
CSCO-1801-192(config)#crypto key generate rsa modulus 1024
```

Next we will set a timeout interval.

```
CSCO-1801-192(config)#ip ssh time-out 120
```

This will set a time limit of 120 seconds for the SSH session to negotiate. You can also set a maximum number of retry attempts in case of a failed negotiation.

```
CSCO-1801-192(config)#ip ssh authentication-retries 3
```

This will set the maximum amount of retries to 3. Once you've logged in and verified the connection is good you can disable telnet access.

```
CSCO-1801-192(config)#line vty 0 4
CSCO-1801-192(config)#transport input ssh
```

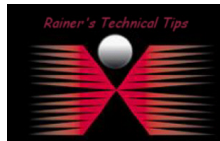
Simply with one command enable scp server option.

```
CSCO-1801-192(config)#ip scp server enable
```

Finally, before you save the configuration you need to create a user being used for SSH access.

```
CSCO-1801-192(config)#aaa new-model
CSCO-1801-192(config)#aaa authentication login default local
CSCO-1801-192(config)#username netuser privilege 15 password nope11
CSCO-1801-192(config)#exit
```

Now to save your configuration changes to the Cisco device, you want to save the running-config to the startup config.



DISCLAIMER

This Technical Tip or TechNote is provided as information only. I cannot make any guarantee, either explicit or implied, as to its accuracy to specific system installations / configurations. Readers should consult each Vendor for further information or support.

Although I believe the information provided in this document to be accurate at the time of writing, I reserve the right to modify, update, retract or otherwise change the information contained within for any reason and without notice. This technote has been created after studying the material and / or practical evaluation by myself. All liability for use of the information presented here remains with the user.

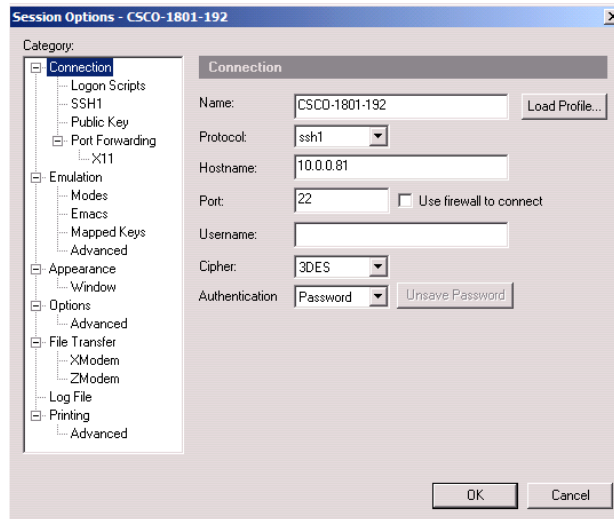
```
CSCO-1801-192#write mem
```

```
CSCO-1801-192#show ip ssh
```

```
SSH Enabled - version 1.99
```

```
Authentication timeout: 120 secs; Authentication retries: 3
```

```
Minimum expected Diffie Hellman key size : 1024 bits
```



PuTTY is an SSH and telnet client, developed originally by Simon Tatham for the Windows platform. PuTTY is open source software that is available with source code and is developed and supported by a group of volunteers. You can download PuTTY [here](#).

HINT: If you are interested in running SSH on your PC, here's an option

Tunnelier is an SSH and SFTP *client* for Windows. It is developed and supported professionally by Bitwise. Tunnelier is robust, easy to install, easy to use, and supports all features supported by PuTTY, as well as the following:

- graphical SFTP file transfer;
- single-click Remote Desktop tunneling;
- auto-reconnecting capability;
- dynamic port forwarding through an integrated proxy;
- an FTP-to-SFTP protocol bridge.

Tunnelier is **free for personal use**, as well as for individual commercial use inside organizations. You can [download Tunnelier here](#).

WinSSHD is an SSH, SFTP and SCP *server* for Windows. It is robust, easy to install, easy to use, and works well with a variety of SSH clients, including Tunnelier, OpenSSH, and PuTTY. WinSSHD is developed and supported professionally by Bitwise. You can [download WinSSHD here](#).