

```
-----  
Router(config)#enable password digitaltut  
Router(config)#enable secret digitaltutSecret
```

```
----->>>
```

```
Router(config)#line console 0  
Router(config-line)#password cisco  
Router(config-line)#login
```

```
----->>>>
```

```
Router#config terminal  
Router(config)#line vty 0 4  
Router(config-line)#password cisco  
Router(config-line)#login
```

```
Router(config)# service password-encryption
```

```
----- for vlan range extain -----  
vtp mode transparent
```

```
-----  
Router>enable  
Router#configure terminal (or type conf t as a shortcut)  
Router(config)#enable password digitaltut  
Router(config)#exit (or press Ctrl-Z)  
Router#exit (to exit privileged mode)
```

We logged out the router, notice that you will see two lines "Router con0 is now available" and "Press RETURN to get started." Press Enter to enter the user mode (a line **Router>** will appear)



```
Telnet localhost

Router con0 is now available

Press RETURN to get started.

Router>
```

Now we can test if the password is working. Log in the privileged mode with the enable command

```
Router>enable
```

Now we can see the router is asking for a password. Type “digitaltut” as its password here and we can log in to the privileged mode



```
Telnet localhost

Router con0 is now available

Press RETURN to get started.

Router>enable
Password:
Router#
```

Type digitaltut here

Notice that we with the “enable password” command, the router will save our password in plain text. It means if someone types **show running-config** on our router, they can see our password.

```
Router#show running-config (or show run)
```

```
Telnet localhost
Router#show running-config
Building configuration...

Current configuration : 517 bytes
?
version 12.3
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
?
hostname Router
?
boot-start-marker
boot-end-marker
?
enable password digitaltut
?
memory-size iomem 15
no aaa new-model
ip subnet-zero
ip cef
?
?
?
?
```

This is a thing we don't want as our router is not secured completely. In fact, most of the administrators use the "enable secret" command nowadays. To do it, in the privileged mode type the following commands:

```
Router#config terminal
Router(config)#enable secret digitaltutSecret (notice the letter "S" is capital)
Router(config)#exit
Router#exit
```

Now try to log in the privileged mode again (type **enable** in the user mode). First, try the password **digitaltut** again; the router will not accept this password anymore. Now type **digitaltutSecret** and we can login! (make sure you capitalize the letter S).

```
Telnet localhost
Router con0 is now available
Press RETURN to get started.

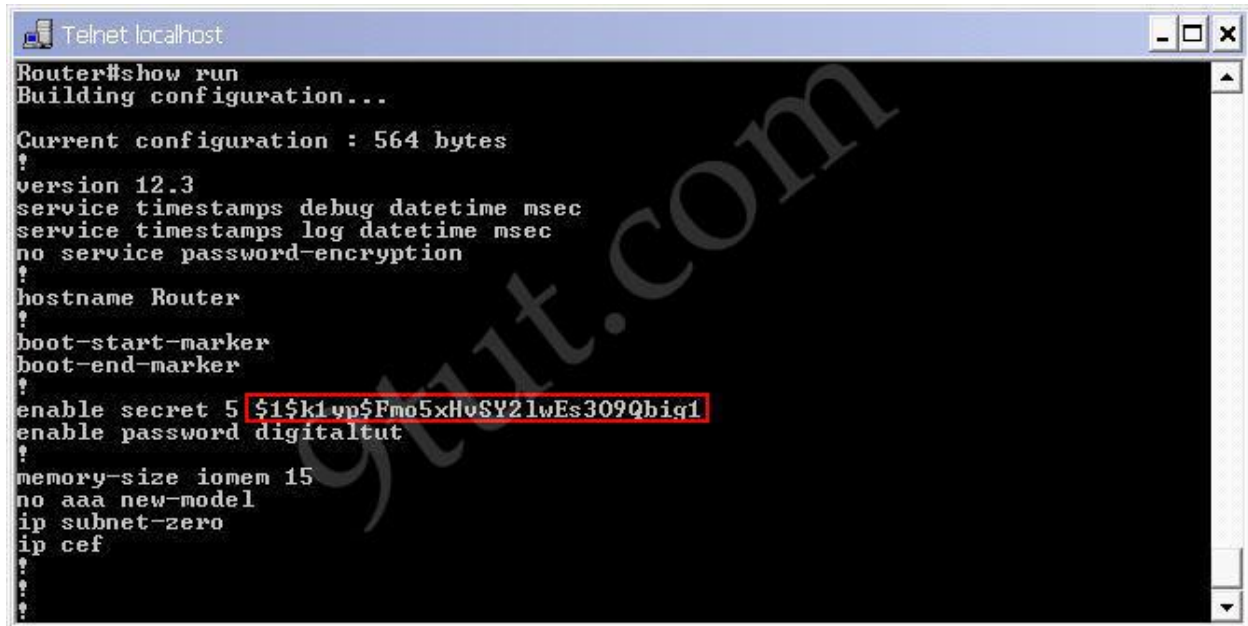
Router>ena
Password:
Password:
Router#
```

Type **digitaltut** here, the router doesn't accept it

Type **digitaltutSecret** here

So notice that if you configure the **enable secret** command, it takes precedence over the **enable password** command. The two commands cannot be in effect simultaneously. The enable secret command will encrypt the password so no one can see the password with the **show running-config** command. We can check it.

Router#show running-config



```
Telnet localhost
Router#show run
Building configuration...

Current configuration : 564 bytes
!
version 12.3
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname Router
!
boot-start-marker
boot-end-marker
!
enable secret 5 $1$k1vp$Fmo5xHvSY2lwEs309Qbiq1
enable password digitaltut
!
memory-size iomem 15
no aaa new-model
ip subnet-zero
ip cef
!
!
```

We can also set the password for console and vty (telnet) login with these commands:

Set console password:

```
Router#config terminal
Router(config)#line console 0
Router(config-line)#password cisco
Router(config-line)#login
Router(config-line)#exit
```

Set vty (virtual terminal lines) password:

```
Router#config terminal
Router(config)#line vty 0 4
Router(config-line)#password cisco
Router(config-line)#login
Router(config-line)#exit
```

By default, a Cisco router supports 5 simultaneous telnet sessions. By using the command **line vty 0 4**, the configuration below will be applied to all 5 sessions (line 0 to line 4).

Notice these passwords are not encrypted and we can see them with the “show running-config” command. We can encrypt all the passwords with the **service password-encryption** command in global configuration mode

```
Router(config)# service password-encryption
```