

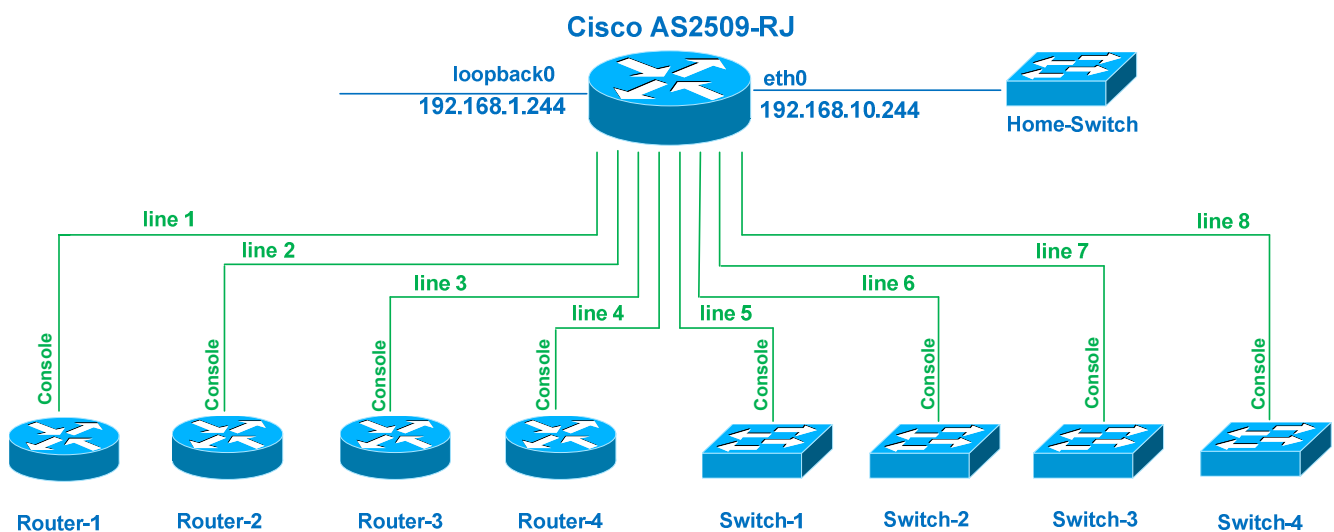
Configuring a Cisco 2509-RJ Terminal Router

created by: Rainer Bemsel - Version 1.0 - Dated: Dec/08/2012

For my Cisco LAB, I've purchased a used Cisco 2509-RJ with RJ45-RJ45 roll-over cables.



This TechTip shows my configuration setup, so you can easily copy that example. This configuration allows for reverse telnet into a set of routers and switches. Connected Devices do not need to be preconfigured at all. The idea is to have all lab equipment installed in a rack and connect to their console ports via a Cisco AS2509



On the next page, I wrote a minimum set of commands being used to configure the Terminal-Router.

This configuration steps on the next page allow you to telnet to the router (192.168.10.244) and get presented with a menu to connect to attached devices. Alternatively, you can also telnet to 192.168.10.244 on port 2001 to connect directly with line 1. Telnet on port 2002 will connect to line 2 and so on.

To exit a session, press ctrl+shift+6, then x



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.

Here is my set of commands you need to run in Config-Mode

Connect to the console port and clear the configuration

```
Router#erase startup-config
Router#reload
```

Note: Do not save configuration. We want to make sure; your router is starting up "unconfigured"

Step 1 - Configure a hostname

```
Router#conf t
Router(config)#hostname Terminal
Router(config)#^Z
```

Step 2 - Create a loopback interface & Assign IP Address

Begin by creating the loopback interface from global configuration mode. Going into interface configuration mode for the loopback 0 interface creates the loopback interface and brings up the interface

```
Terminal#conf t
Terminal(config)#interface loopback0
Terminal(config-if)#ip address 192.168.1.244 255.255.255.255
Router(config)#^Z
```

Step 3 - Allow Telnet as a transport across asynchronous lines 1 to 8

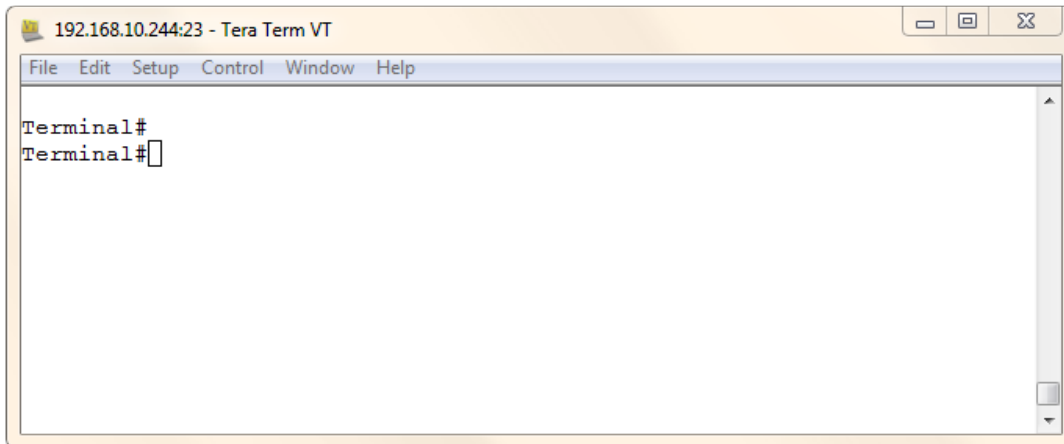
```
Terminal#conf t
Terminal(config)#line 1 8
Terminal(config-line)#transport input telnet
Router(config)#^Z
```

Step 4 - Create a host table that maps device's hostnames to the asynchronous line they are connected to.

```
Terminal#conf t
Terminal(config)#ip host Switch-4 2008 192.168.1.244
Terminal(config)#ip host Switch-3 2007 192.168.1.244
Terminal(config)#ip host Switch-2 2006 192.168.1.244
Terminal(config)#ip host Switch-1 2005 192.168.1.244
Terminal(config)#ip host Router-4 2004 192.168.1.244
Terminal(config)#ip host Router-3 2003 192.168.1.244
Terminal(config)#ip host Router-2 2002 192.168.1.244
Terminal(config)#ip host Router-1 2001 192.168.1.244
Router(config)#^Z
```

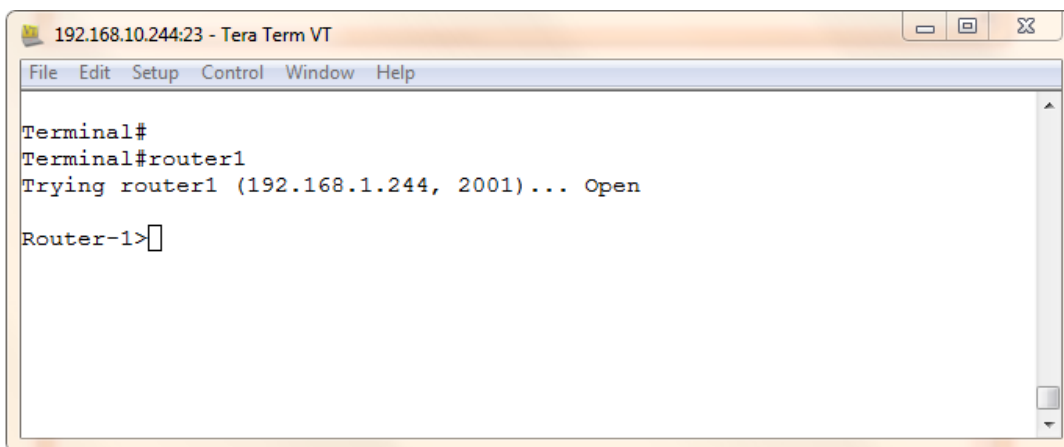


Step 5 - Test Connections



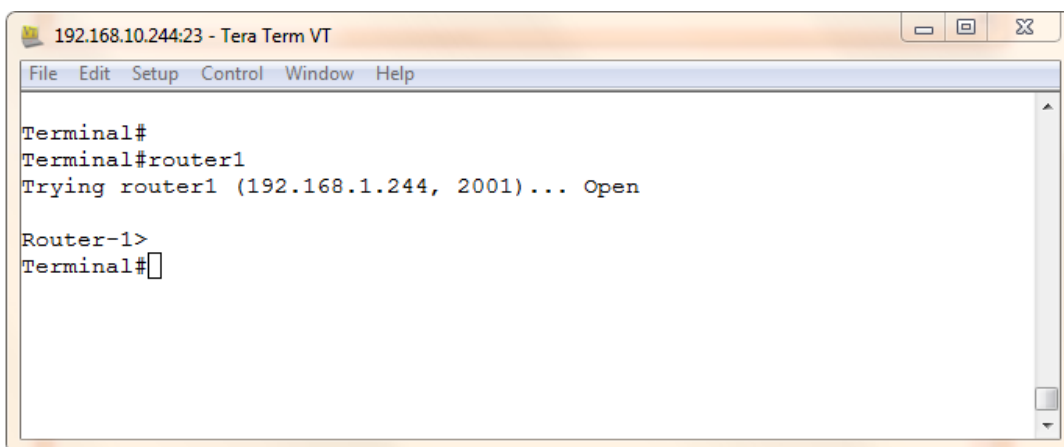
```
192.168.10.244:23 - Tera Term VT
File Edit Setup Control Window Help
Terminal#
Terminal#
```

Let's say, you have a router connected to asynchronous port 1. Type **router1** to reverse telnet into that Router



```
192.168.10.244:23 - Tera Term VT
File Edit Setup Control Window Help
Terminal#
Terminal#router1
Trying router1 (192.168.1.244, 2001)... Open
Router-1>
```

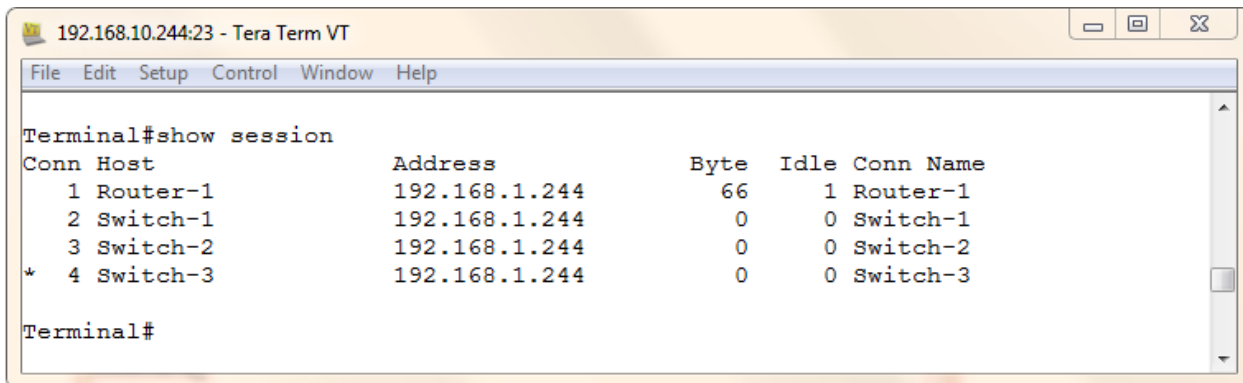
You will be connected to that router using port 2001. If you see "Open" press Enter to get to the prompt



```
192.168.10.244:23 - Tera Term VT
File Edit Setup Control Window Help
Terminal#
Terminal#router1
Trying router1 (192.168.1.244, 2001)... Open
Router-1>
Terminal#
```

By using CTRL+SHIFT+6 (press them together and release the keys) and press x right after that, you should be back to the terminal router. However, that session is not terminated. To get back, just press **enter** again.

To verify how many active session are open, type "*show session*" on the terminal-router



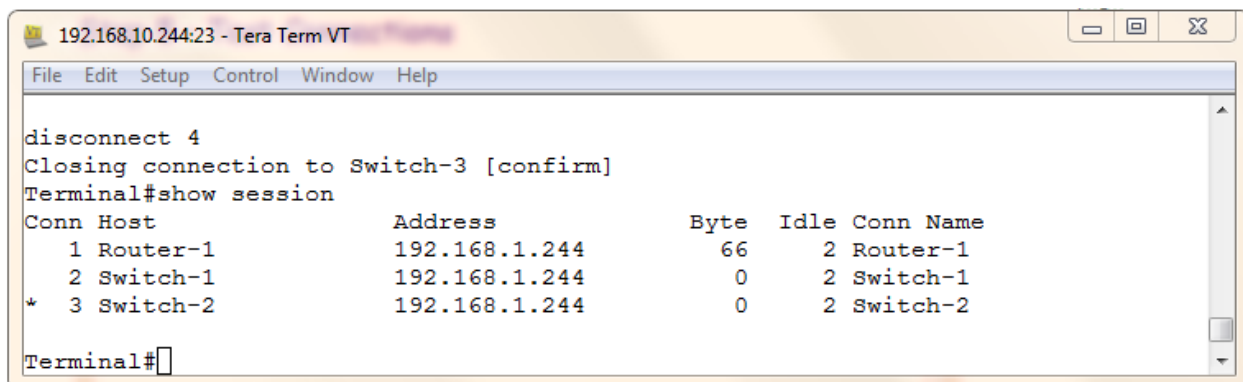
```

Terminal#show session
Conn Host          Address           Byte  Idle Conn Name
  1 Router-1       192.168.1.244    66   1 Router-1
  2 Switch-1       192.168.1.244     0   0 Switch-1
  3 Switch-2       192.168.1.244     0   0 Switch-2
* 4 Switch-3       192.168.1.244     0   0 Switch-3

Terminal#

```

To terminate a session finally, you have to initiate a "*disconnect*" with the Connection #



```

disconnect 4
Closing connection to Switch-3 [confirm]
Terminal#show session
Conn Host          Address           Byte  Idle Conn Name
  1 Router-1       192.168.1.244    66   2 Router-1
  2 Switch-1       192.168.1.244     0   2 Switch-1
* 3 Switch-2       192.168.1.244     0   2 Switch-2

Terminal#

```

On the next page, I've attached the startup-config for your reference

One Final Note: Make sure, all connected devices are up and running. I've experienced a "Connection refused by remote host". If this happens, just reload the Terminal Server. This fixed it almost every time.

Here's my system Information

- System image file is "flash:c2500-i-1.121-18.bin"
- cisco AS2509-RJ (68030) processor (revision K)
- 1 Ethernet/IEEE 802.3 interface(s)
- 1 Serial network interface(s)
- 8 terminal line(s)
- 32K bytes of non-volatile configuration memory.
- 8192K bytes of processor board System flash (Read ONLY)

```
Terminal#show startup-config

Using 985 out of 32762 bytes
!
version 12.1
no service single-slot-reload-enable
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname Terminal
!
enable secret 5 $1$5oSJ$gyc5xM6E1MOK4x23OFkX1
!
!
ip subnet-zero
no ip domain-lookup
ip host Switch-4 2008 192.168.1.244
ip host Switch-3 2007 192.168.1.244
ip host Switch-2 2006 192.168.1.244
ip host Switch-1 2005 192.168.1.244
ip host Router-4 2004 192.168.1.244
ip host Router-3 2003 192.168.1.244
ip host Router-2 2002 192.168.1.244
ip host Router-1 2001 192.168.1.244!
!
interface Loopback0
 ip address 192.168.1.244 255.255.255.255
!
interface Ethernet0
 ip address 192.168.10.244 255.255.255.0
interface Serial0
 no ip address
 shutdown
!
no ip classless
no ip http server
!
!
line con 0
line 1 8
 transport input all
line aux 0
line vty 0 4
 password terminal
 login
!
end
```

Terminal#

That's pretty much everything to that up and running. I've created another TechTip based on this configuration and included a menu to choose the connections

