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Title:	Adding a permanent Gateway to the Taurus				
Originator:	M. Turcot				
Date:	March 17, 2005				

Revision History

| Rev.	Date	Author	Description
1	March 17, 2005	M. Turcot	Initial Revision

ADDING A PERMANENT GATEWAY TO THE TAURUS

Note: This procedure was designed for a telnet session on a PC using the Windows XP Pro operating system. This procedure also assumes that the user has Ethernet connectivity to the Taurus. Previous experience with text editors, such as VI, will make this procedure much easier.

1. Telnet to the Taurus. In the example below, the user will be logging onto the Taurus which has an IP address of 199.71.138.138.
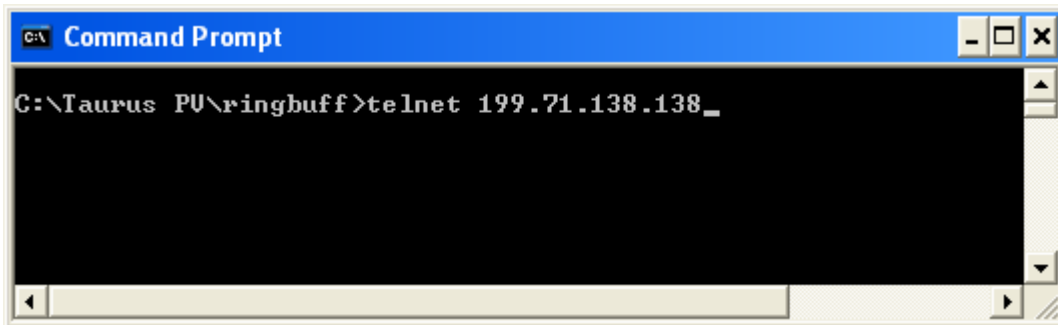
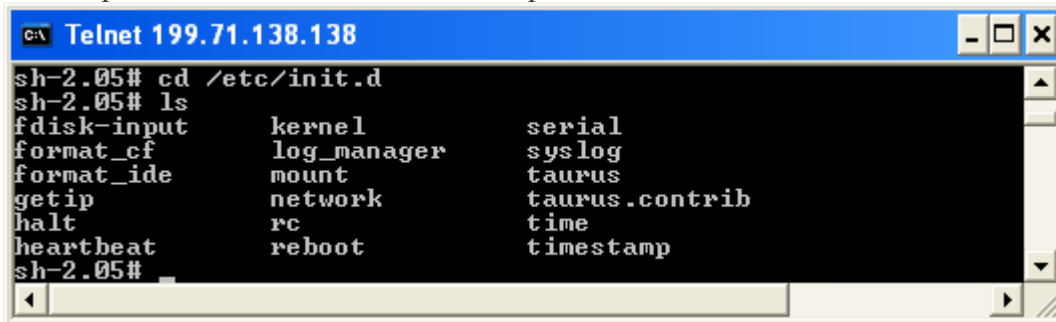2. Use root for both the login and the password.
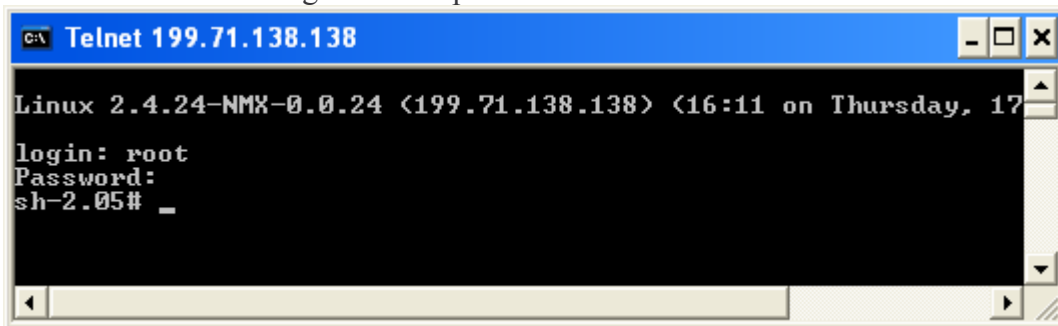
3. Once connected please type in the following command:
     cd /etc/init.d

4. Once in the /etc/init.d directory, list the contents by typing.
   ls

5. The output should be similar to the example below.

```
Telnet 199.71.138.138                              _ □ ×
sh-2.05# cd /etc/init.d
sh-2.05# ls
fdisk-input        kernel             serial
format_cf          log_manager        syslog
format_ide         mount              taurus
getip              network            taurus.contrib
halt               rc                 time
heartbeat          reboot             timestamp
sh-2.05# _
```
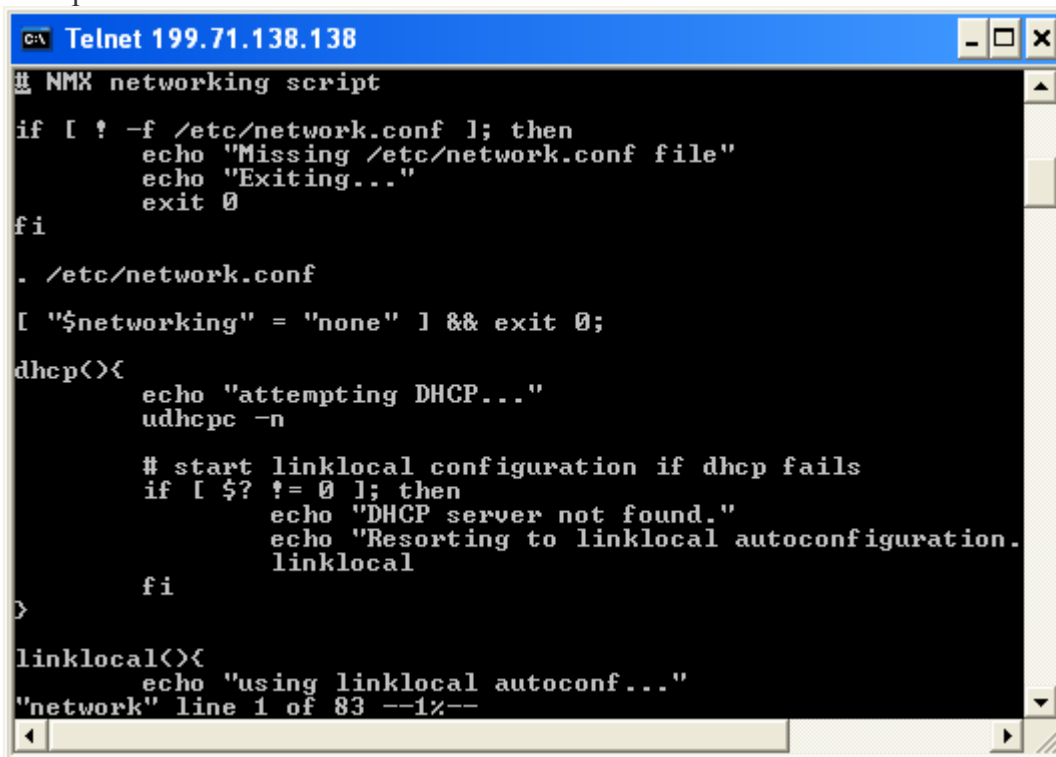
6. Edit the network file using a text editor. In this document, we will be using VI. To edit
   this file using VI simply type the following:
       vi network

   Note: VI can be very frustrating for the inexperienced user. If you find yourself erasing
   or modifying other sections inadvertently simply, press **Esc** and quit without saving (**:q!**)
   and start over.

7. You should now be able to see the start of the network file. It should look similar to the
   example below.

```
Telnet 199.71.138.138                              _ □ ×
# NMX networking script

if [ ! -f /etc/network.conf ]; then
        echo "Missing /etc/network.conf file"
        echo "Exiting..."
        exit 0
fi

. /etc/network.conf

[ "$networking" = "none" ] && exit 0;

dhcp(){
        echo "attempting DHCP..."
        udhcpc -n

        # start linklocal configuration if dhcp fails
        if [ $? != 0 ]; then
                echo "DHCP server not found."
                echo "Resorting to linklocal autoconfiguration.
                linklocal
        fi
}

linklocal(){
        echo "using linklocal autoconf..."
"network" line 1 of 83 --1%--
```

8. Scroll down to the section which starts with "*static (){*". Here is how to move the cursor in the file while in VI cursor mode.

    a. To move left one character, type **h**.
    b. To move right one character, type **l** (lower case L).
    c. To move up, type **k**.
    d. To move down, type **j**.
    e. You can also move to the beginning of the next line using the **Return** key.

9. You should see the following once you have reached the "*static (){*" section of the file.


```
Telnet 199.71.138.138                                    _ □ ×

static(){
        if [ -z "$ip" ]; then
                echo "static: IP address not present"
                exit 1
        fi

        if [ -z "$netmask" ]; then
                echo "static: network mask not present"
                exit 1
        fi

        ifconfig eth0 $ip netmask $netmask
        hostname `/etc/init.d/getip`

        if [ -z "$gateway" ]; then
                route add default dev eth0
        else
                route add default gw $gateway dev eth0
        fi
}

services(){
        # start super server
        /usr/sbin/xinetd -stayalive -reuse -pidfile /tmp/xinetd
etwork" line 1 of 83 --1%--
```

10. Scroll down to the last if statement in this section, the one which includes "*$gateway*" in the conditions.

    Note: Here are a few commands you may need in order to modify this files in VI.
x	Delete current character
dd	Delete entire current line

    Press **Esc** to exit VI Edit Mode, and return to VI Command Mode.

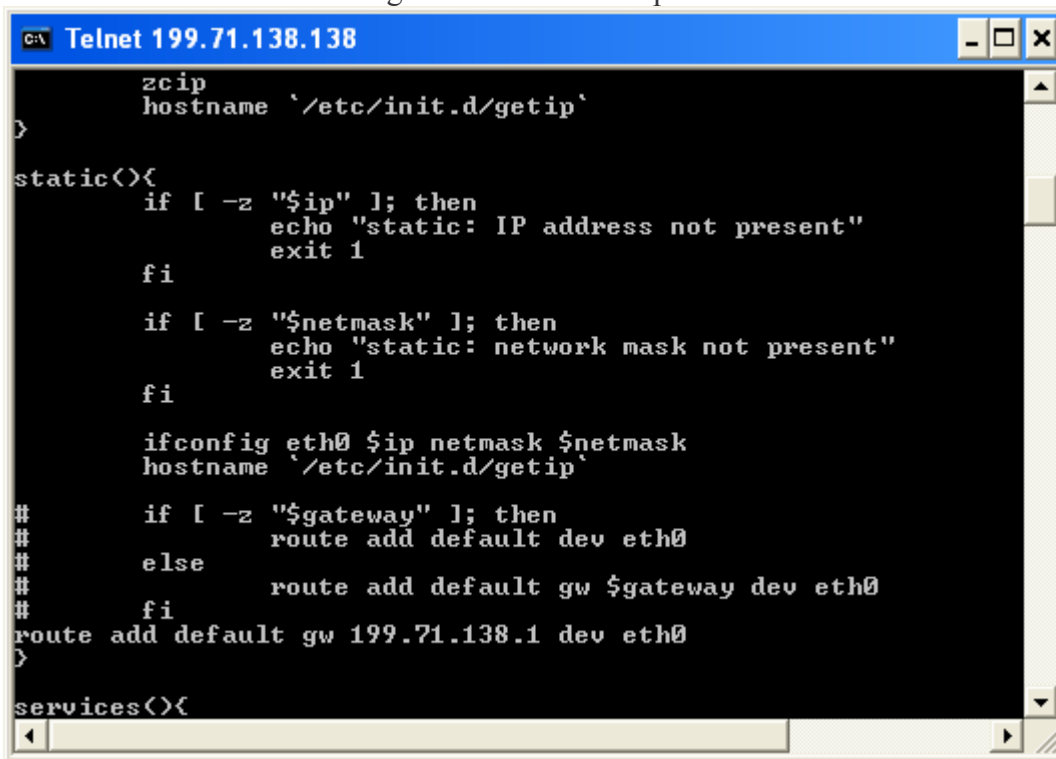 | | |
    |---|---|
    | **i** | Edit Mode, Insert text |
    | **R** (shift-r) | Edit Mode, Replace text |
    | **A** (shift-a) | Edit Mode, starting at the end of the current line |

11. Insert (**i**) a # sign at the start of the if statement and in front of the next five lines.

12. Press **Esc** once you have inserted the pound sign on the last line.

13. Use the **A** command to go to the end of that line and press the **Return** key to start a new line.

14. Insert the following command on the new line:

    route add default gw ip_address dev eth0

    Note: In the above command **ip_address** is the IP address of the desired gateway. Also, in the previous command the dev is listed as **eth0**, which indicates the Ethernet port, but it could also be **sl0** and **sl1**. **Sl0** would point the gateway towards SLIP on serial port 1 and **Sl1** would be the same but for serial port 2.

15. The file should look something like this when completed.

```
zcip
        hostname `/etc/init.d/getip`
}

static(){
        if [ -z "$ip" ]; then
                echo "static: IP address not present"
                exit 1
        fi

        if [ -z "$netmask" ]; then
                echo "static: network mask not present"
                exit 1
        fi

        ifconfig eth0 $ip netmask $netmask
        hostname `/etc/init.d/getip`
#       if [ -z "$gateway" ]; then
#               route add default dev eth0
#       else
#               route add default gw $gateway dev eth0
#       fi
route add default gw 199.71.138.1 dev eth0
}

services(){
```

16. Once you have successfully edited the file save and quit the VI editor using the following command.
    :wq

17. Reboot the Taurus.