

Configuring VNC Server on PS3 by André Leiradella

WHY

For those not fortunate enough to have a TV with HDMI connection, using Linux on PS3 can be troublesome. You either have a very small desktop or don't have one at all.

Configuring the VNC Server to have a remote Desktop will enable you to work in a high-resolution windowed mode and perform any kind of task as if you were working on the PS3 itself.

PRE REQUISITES

- A PS3 connected to a TV via component video and with Linux installed. Yellow Dog Linux 5.0.1 (YDL) is assumed throughout this document.
- A PC with VNC Viewer and a SSH client installed.
- A LAN in which both the PS3 and the PC are connected.

WHERE TO GET

- You can download VNC Viewer at <http://www.realvnc.com>. You don't need the full VNC package, just the standalone viewer.
- PuTTY, a free SSH client, can be downloaded at <http://www.chiark.greenend.org.uk/~sgtatham/putty/>.

PROCEDURE

Initial setup

Turn on your TV and the PS3. If the PS3 boots to the Game OS, Go to **Settings**, **System Settings**, **Default System** and choose **Other OS**. Reboot the PS3. Wait for YDL's **boot:** prompt. Enter **yd|text**. When the **login:** prompt appears, login as **root**.

Enter **ifconfig**. Write down the IP address of the **eth0** interface. This is the IP through which you're going to connect to the PS3. Enter **exit** and turn off your TV.

In the PC, open your SSH client and connect to the PS3. Login as **root**.

Changing /etc/sysconfig/vncservers

In the SSH client, change to **/etc/sysconfig** and enter **vi vncservers**. Change the **VNCSERVERS** variable to "**1:root**" (where **1** is the display number and **root** is the user for whom the remote Desktop server will be run). Change the **VNCSERVERSARGS[2]** to "**-geometry 1024x768 -nohttpd**". You can change the Desktop resolution by changing this line. Save the file and exit **vi**.

```
root@localhost:~#
# The VNCSERVERS variable is a list of display:user pairs.
#
# Uncomment the lines below to start a VNC server on display :2
# as my 'myusername' (adjust this to your own). You will also
# need to set a VNC password; run 'man vncpasswd' to see how
# to do that.
#
# DO NOT RUN THIS SERVICE if your local area network is
# untrusted! For a secure way of using VNC, see
# <URL:http://www.uk.research.att.com/archive/vnc/sshvnc.html>.
#
# Use "-nolisten tcp" to prevent X connections to your VNC server via TCP.
#
# Use "-nohttpd" to prevent web-based VNC clients connecting.
#
# Use "-localhost" to prevent remote VNC clients connecting except when
# doing so through a secure tunnel. See the "-via" option in the
# `man vncviewer' manual page.

VNCSERVERS="1:root"
VNCSERVERARGS[2]="-geometry 1024x768 -nohttpd"
~
~
-- INSERT --
```

Making the VNC Server start at boot time

Change to /etc/rc3.d. Create a link named S60vncserver to /etc/init.d/vncserver with the command `ln -s ../init.d/vncserver S60vncserver`. This will make the server start on boot time when Linux is booted in runlevel 3, which is the default runlevel in YDL.

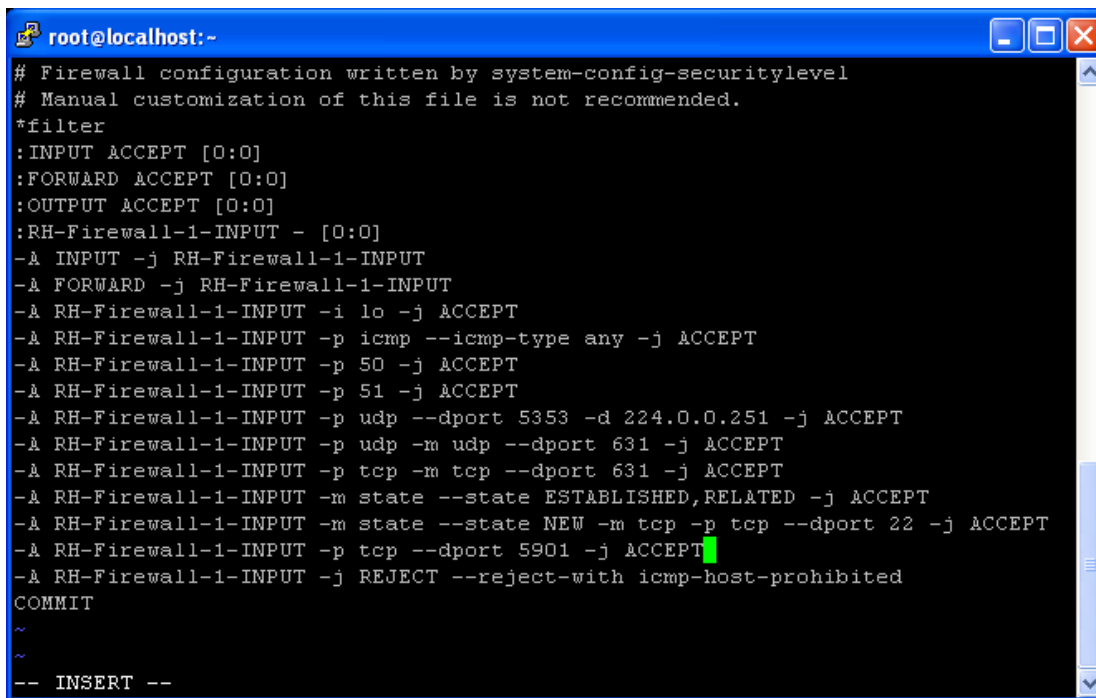
```
root@localhost:/etc/rc3.d#
[root@localhost etc]#
[root@localhost etc]# cd sysconfig/
[root@localhost sysconfig]# ls
authconfig  hwconf          netdump         selinux
autofs      i18n            netdump_id_dsa sendmail
bluetooth  init            netdump_id_dsa.pub smartmontools
cbq         iptables        network         spamassassin
clock       iptables-config networking       syslog
console     irda            network-scripts system-config-securitylevel
crond       irqbalance     ntpd            system-config-users
desktop     kernel          pand            trackpad
dund        keyboard       pm              vncservers
firstboot   kudzu           power           wpa_supplicant
hidd        modules        prelink
hsqldb      mouse-emulation rhn
httpd       named           saslauthd
[root@localhost sysconfig]# vi vncservers
[root@localhost sysconfig]# cd /etc/init.d/rc3.d
-bash: cd: /etc/init.d/rc3.d: No such file or directory
[root@localhost sysconfig]# cd /etc/rc3.d/
[root@localhost rc3.d]# ls -l S60vncserver
lrwxrwxrwx 1 root root 19 Jun  1 00:16 S60vncserver -> ../init.d/vncserver
[root@localhost rc3.d]# ln -s ../init.d/vncserver S60vncserver
```

Creating a password to access the VNC Server

Enter `cd` to go to root's home directory. Enter `vncpasswd`. Enter the password that the VNC Server will use to authenticate incoming connections. Please note that the RFB protocol used by VNC is **not** secure.

Opening the VNC Server port in the firewall

Change to `/etc/sysconfig` and enter `vi iptables`. Add a line just before the last `-A` line (the one with `REJECT`). The line must be `-A RH-Firewall-1-INPUT -p tcp -dport 5901 -j ACCEPT`. Save the file and exit `vi`.



```
root@localhost:-
# Firewall configuration written by system-config-securitylevel
# Manual customization of this file is not recommended.
*filter
:INPUT ACCEPT [0:0]
:FORWARD ACCEPT [0:0]
:OUTPUT ACCEPT [0:0]
:RH-Firewall-1-INPUT - [0:0]
-A INPUT -j RH-Firewall-1-INPUT
-A FORWARD -j RH-Firewall-1-INPUT
-A RH-Firewall-1-INPUT -i lo -j ACCEPT
-A RH-Firewall-1-INPUT -p icmp --icmp-type any -j ACCEPT
-A RH-Firewall-1-INPUT -p 50 -j ACCEPT
-A RH-Firewall-1-INPUT -p 51 -j ACCEPT
-A RH-Firewall-1-INPUT -p udp --dport 5353 -d 224.0.0.251 -j ACCEPT
-A RH-Firewall-1-INPUT -p udp -m udp --dport 631 -j ACCEPT
-A RH-Firewall-1-INPUT -p tcp -m tcp --dport 631 -j ACCEPT
-A RH-Firewall-1-INPUT -m state --state ESTABLISHED,RELATED -j ACCEPT
-A RH-Firewall-1-INPUT -m state --state NEW -m tcp -p tcp --dport 22 -j ACCEPT
-A RH-Firewall-1-INPUT -p tcp --dport 5901 -j ACCEPT
-A RH-Firewall-1-INPUT -j REJECT --reject-with icmp-host-prohibited
COMMIT
~
~
-- INSERT --
```

Changing the Window Manager to Enlightenment “E17”

Change to `~/ .vnc` and enter `vi xstartup`. Uncomment the `unset` and `exec` lines. Change the file and exit `vi`.

```
root@localhost:~/vnc
#!/bin/sh

# Uncomment the following two lines for normal desktop:
unset SESSION_MANAGER
exec /etc/X11/xinit/xinitrc

[ -x /etc/vnc/xstartup ] && exec /etc/vnc/xstartup
[ -r $HOME/.Xresources ] && xrdb $HOME/.Xresources
xsetroot -solid grey
vncconfig -iconic &
xterm -geometry 80x24+10+10 -ls -title "$VNCDESKTOP Desktop" &
twm &
~
~
~
~
~
~
~
~
~
~
"xstartup" 12L, 334C
```

Restarting iptables and VNC Server

Enter `/etc/init.d/iptables restart` and `/etc/init.d/vncserver restart`.

Opening the remote Desktop

Enter `exit` and close the SSH client. Open VNC Viewer and inform the PS3 IP and either display 1 or port number 5901. Enter the password you have chosen for the VNC Server. The remote Desktop appears. Enjoy!

