

ZGW

1) Install Debian with LXDE desktop environment and nothing else.

2) disable sleep, etc

Official documentation: https://wiki.debian.org/Suspend#Disable_suspend_and_hibernation

sudo systemctl mask sleep.target suspend.target hibernate.target hybrid-sleep.target (Done on 226, 9800, ZelloLink)

4) Add your user to the sudoers list (sudo visudo, NOPASSWD:ALL)

5) Set up auto login in in Debian desktop environment

sudo nano /usr/share/lightdm/lightdm.conf.d/02_user.conf

[SeatDefaults]

autologin-user=<user>

autologin-user-timeout=0

4) Remove bloatware (synaptic package manager, filter installed, remove libreoffice, games, etc)

5) Install Playonlinux, Wine, Winetricks and Zello Windows app

sudo apt update

sudo apt -y install software-properties-common

sudo add-apt-repository contrib

sudo dpkg --add-architecture i386

sudo apt update

sudo apt -y install wine wine64 wine32 winbind winetricks playonlinux

Download and install Zello.

<https://support.zellowork.com/hc/en-us/articles/4422588052759-Downloading-the-Legacy-PC-Applcation>

6) Autostart Zello

Official documentation:

<https://superuser.com/questions/146457/how-do-i-add-startup-applications-in-lubuntu-lxde>

sudo nano /home/zgw/.config/autostart/zello.desktop

[Desktop Entry]

Type=Application

Name=Zello autostart

Comment=Start Zello

Exec=playonlinux --run Zello

OnlyShowIn=LXDE

7) Remove pulseaudio (for Zello to see ALSA cards in Audio settings)

Official documentation:

<https://linuxg.net/how-to-properly-replace-pulseaudio-with-alsa-on-crunchbag-linux-and-debian-squeeze/>

sudo apt autoremove pulseaudio

8) Add alsa loopback card (card 0 devices 0 and 1. audio from 0 goes to 1 and viceversa)

sudo nano /etc/modules

then add the line

snd_aloop

9) Install svxlink (2 options)

version 1 (from aptitude): sudo apt update && sudo apt -y install svxlink-server

or latest version (with TG selection): <https://github.com/sm0svx/svxlink/wiki/InstallSrcHwRpi>

"sudo groupadd gpio" before "sudo useradd -rG audio,plugdev,gpio,dialout

10) install svxlink sounds

cd /usr/share/svxlink/sounds/

git clone https://github.com/yo3agc/ro_RO-wilhelmina.git

OR

git clone https://github.com/yo3agc/ro_RO-alexandra.git

in /etc/svxlink/svxlink.conf set

DEFAULT_LANG=ro_RO-wilhelmina

OR

DEFAULT_LANG=ro_RO-alexandra

12) set svxlink node info

sudo nano /etc/svxlink/node_info.json

```
{
  "isx": "1",
  "k_id": "n_a",
  "name": "YO3AGC-P",
  "nameA": "YO3AGC-P",
  "nodeLocation": "KN34ao",
  "pl_in": "103.5",
  "pl_out": "103.5",
  "rx_freq": "436.925",
  "shift": "0",
  "tip": "Nod POctabil",
  "tx_freq": "436.925",
  "tg": "226"
}
```

13) Configure svxlink logics (SimplexLogic, ReflectorLogic and a link between the 2)

14) Install tty0tty (virtual com ports, interconnected pairs, used for PTT and SQL between Zello and svxlink)

git clone <https://github.com/freemed/tty0tty.git>

cd tty0tty/module

sudo apt update

sudo apt -y install dh-make dkms build-essential

make

sudo cp tty0tty.ko /lib/modules/\$(uname -r)/kernel/drivers/misc

sudo depmod

sudo modprobe tty0tty

ls /dev/tnt*

sudo chmod 666 /dev/tnt*

to make virtual serial ports start automatically after restart:

sudo nano /etc/modules

and add the line:

tty0tty

To make 666 permissions on /dev/tnt* persist after reboot (otherwise Zello will report 'failed' for com port status when opened):

sudo nano /etc/udev/rules.d/tty0tty_tnt.rules

And add line

```
KERNEL=="tnt[0-7]*",MODE="0666"
```

15) PTT and SQL ports setup in Playonlinux, Zello and svxlink

official documentation:

https://wiki.winehq.org/index.php?title=Wine_User%27s_Guide&oldid=2519#Serial_and_Parallel_Ports

With Zello Closed, in PlayOnLinux select the Zello app, Configure tab, Registry Editor, HKEY_LOCAL_MACHINE/Software/Wine/Ports Add String Value COM7 set value to /dev/tnt7 close regedit. in ZELLO set rx tx to COM7 TX RTS High RX CTS High

In /etc/svxlink/svxlink.conf set PTT and SQL as follows:

RX

```
SQL_DET=SERIAL
```

```
SERIAL_PORT=/dev/tnt6
```

```
SERIAL_PIN=CTS
```

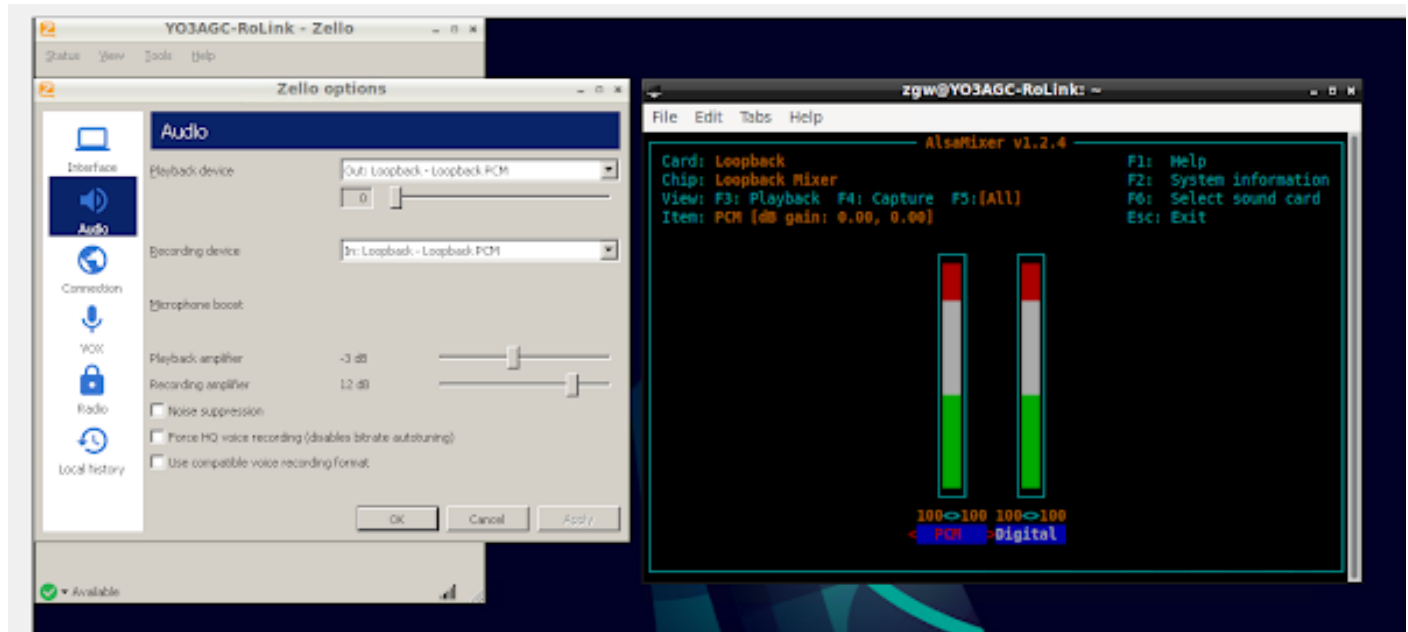
TX

```
PTT_TYPE=SerialPin
```

```
TT_PORT=/dev/tnt6
```

```
PTT_PIN=RTS
```

16) Set up audio Levels:



18) install Anydesk <https://computingforgeeks.com/how-to-install-anydesk-on-debian-linux/>

19) (Optional) Install Virtualbox guest additions

<https://linuxize.com/post/how-to-install-virtualbox-guest-additions-on-debian-10/>

19) (Optional) Install a dashboard for svxlink

sudo taskset (and then select web server entry and OK)

sudo su

cd /var/www

cp -R html.html.\$(date +"%Y%m%dT%H%M%S")

wget https://github.com/FM-POLAND/hs_dashboard_pi/archive/refs/heads/main.zip

unzip [main.zip](#)

```
rm main.zip  
rm -R html  
mv hs_dashboard_pi-main.html  
chown svxlink -R html  
sudo chmod -R 777 /var/www  
sudo usermod -aG sudo svxlink  
sudo apt-get -y install avahi-daemon avahi-utils  
sudo service apache2 restart  
20) (Appendix) SVXLINK YO Reflectors Dashboards:
```

svx.439100.ro

<http://tetra.radiofarafiltru.ro/>

<https://tetra-romania.ddns.net/>

<https://raw.githubusercontent.com/dl1hrc/svxlink/svxlink-usrp/CONFIG.adoc>

<http://www.granudden.info/Ham/Repeatrar/Files/svxbridge/svxbridge.py>