

## Install bristuff-0.3.0-PRE-1y-g for supporting OpenVox B200P/B400P in Trixbox

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This instruction is to provide a guide for customers who are using Trixbox with Openvox B200P/B400P to run Asterisk PBX platform. There are few steps that you must follow:

1. Download openvox-bristuff-0.3.0-PRE-1y-g from: <http://www.openvox.com> and unzip to /usr/src

2. Run command: tar -zxvf openvox-bristuff-0.3.0-PRE-1y-g.tar.gz.

3. Check the kernel version (run: uname -a).

```
[root@asterisk1 zaptel]# uname -a
```

```
Linux asterisk1.local 2.6.9-34.0.2.EL #1 Fri Jul 7 19:24:57 CDT 2006 i686 i686 i386
```

```
GNU/Linux
```

4. It should be version 2.6.9-34.0.2.EL in trixbox2.2

5. Make sure the kernel source in /usr/src/linux-2.6. and in /lib/modules

```
cd /usr/src
```

```
ls
```

```
[root@asterisk1 src]# ls
```

```
asterisk-perl-0.08 openvox-bristuff-0.3.0-PRE-1y-g freepbx kernel-2.6.9-34.0.2.EL.src.rpm
```

```
kernels linux-2.6 redhat sipsak-0.8.11
```

```
[root@asterisk1 src]# cd linux-2.6/
```

```
[root@asterisk1 linux-2.6]# ls
```

```
arch crypto drivers fs include init ipc kernel lib Makefile mm
```

```
Module.symvers net scripts security sound usr
```

```
[root@asterisk1 linux-2.6]# cd /lib/modules/
```

```
[root@asterisk1 modules]# ls
```

```
2.6.9-34.0.2.EL 2.6.9-34.0.2.ELsmp kabi-4.0-0
```

```

[root@asterisk1 modules]# cd 2.6.9-34.0.2.EL
[root@asterisk1 2.6.9-34.0.2.EL]# ls
build    kernel  modules.alias  modules.dep          modules.inputmap
modules.pcimap  modules.usbmap
extra    misc      modules.ccwmap  modules.ieee1394map  modules.isapnpmap
modules.symbols  source
[root@asterisk1 2.6.9-34.0.2.EL]# cd build/
[root@asterisk1 build]# ls
arch  crypto  drivers  fs  include  init  ipc  kernel  lib  Makefile  mm
Module.symvers  net  scripts  security  sound  usr
[root@asterisk1 build]# pwd
/lib/modules/2.6.9-34.0.2.EL/build
[root@asterisk1 build]# cd include/
[root@asterisk1 include]# ls
acpi  asm  asm-generic  asm-i386  config  linux  math-emu  media  net  pcmcia
rxrpc  scsi  sound  video

```

6. If there is no kernel source, please download one with a right version. If you are using trixbox, and there is no kernels source, run command in directory /usr/src:  
yum install kernel-devel-2.6.9 and create link named linux-2.6 in /usr/src

7. Run the command to compile bristuff :

```

cd /usr/src/openvox-bristuff-0.3.0-PRE-1y-g/
chmod 777 download.sh  compile.sh  install.sh
./install.sh

```

8. If you have problems with lock errors in compiling openvox-bristuff, you must edit the two files:  
zaptel-base.c and torisa.c
9. open zaptel-base.c in /usr/src/openvox-bristuff-0.3.0-PRE-1y-g/zaptel and comment line 387:

```

/*#ifdef DEFINE_RWLOCK

static DEFINE_RWLOCK(zone_lock);

static DEFINE_RWLOCK(chan_lock);

#else*/

static rwlock_t zone_lock = RW_LOCK_UNLOCKED;

static rwlock_t chan_lock = RW_LOCK_UNLOCKED;

/*#endif*/

```

10. open torisa.c in /usr/src/openvox-bristuff-0.3.0-PRE-1y-g/zaptel and comment line 136:

```

/*#ifdef DEFINE_RWLOCK

static DEFINE_RWLOCK(torisa);

#else*/

static rwlock_t torisa = RW_LOCK_UNLOCKED;

/*#endif*/

```

11. After compiling the bristuff, copy genzaptelconf from /usr/src/bristuff-0.3.0/zaptel/xpp/utills to /usr/local/sbin.

```
cp /usr/src/openvox-bristuff-0.3.0-PRE-1y-g/zaptel/xpp/utills/ genzaptelconf /usr/local/sbin
```

12. Add module qozap in /usr/sysconfig/zaptel and remove ztdummy:

```

vi /usr/sysconfig/zaptel

MODULES="$MODULES wctdm"           # TDM400P - Modular FXS/FXO interface (1-4
ports)

#MODULES="$MODULES wcfxs"         # either above or this

#MODULES="$MODULES wcusb"         # S100U - Single port FXS USB Interface

#MODULES="$MODULES wcfxsusb"     # either above or this

#MODULES="$MODULES torisa"       # Old Tormenta1 ISA Card

#MODULES="$MODULES ztdummy"      # UHCI USB Zaptel Timing Only Interface

MODULES="$MODULES qozap"         # for OpenVox B200P/B400P

```

~

13. Uncomment modules in /etc/init.d/zaptel

```
MODULES="tor2 wct4xxp wct1xxp wctel1xp wcfxo wctdm qozap"
```

```
# MODULES="ztdummypll"
```

14. Edit zaptel file under /etc/init.d/

```
cd /etc/init.d
```

```
vi zaptel:
```

**Before change:**

```
for x in $MODULES; do
eval localARGS="\${x}_ARGS"
action "Loading ${x}:" modprobe ${x} ${ARGS} ${localARGS}
done
sleep 3
if [ ! -e /proc/zaptel/1 ]; then
echo "No functioning zap hardware found in /proc/zaptel, loading ztdummypll"
action "Loading ztdummypll:" modprobe ztdummypll
fi
action "Running ztcfg: " /usr/sbin/ztcfg
RETVAL=$?
```

**After changed:**

```
for x in $MODULES; do
eval localARGS="\${x}_ARGS"
# load qozap.ko for kernel-2.6, if kernel 2.4 load qozap only
if [ ${x} = qozap ]; then
action "Load qozap for openvox B200P/B400P"
insmod /usr/src/openvox-bristuff-0.3.0-PRE-1y-g/qozap/qozap.ko
fi
action "Loading ${x}:" modprobe ${x} ${ARGS} ${localARGS}
done
sleep 3
# remove ztdummy
# if [ ! -e /proc/zaptel/1 ]; then
```

```
#      echo "No functioning zap hardware found in /proc/zaptel, loading ztdummypll"
#      action "Loading ztdummypll:" modprobe ztdummypll
#fi

action "Running ztcfg: " /usr/sbin/ztcfg

RETVAL=$?

15 Reboot trixbox
```

Notices:

- 1) Before compiling openvox-bristuff, please stop asterisk service and zaptel
- 2) The trixbox version that we are using to test is trixbox 2.2 .
- 3) Do not make samples when you installing asterisk from openvox-bristuff, otherwise, the trixbox asterisk configs files will be overwritten.
- 4) You have to install extra packages to support other asterisk features such as asterisk-addons
- 5) Zaptel.conf and Zapata.conf under /usr/src/openvox-bristuff-0.3.0-PRE-1y-g/qozap are to support B200P/B400P.
- 6) If anything does not work properly, please adjust that accordingly.