INSTALLATION GUIDE

Junghanns.NET quadBRIexpress ISDN CARD

HELLO!

MY NAME IS BILL AND I WILL GUIDE YOU THROUGH THE INSTALLATION OF JUNGHANNS.NET QUADBRIEXPRESS CARD.

THANK YOU FOR CHOOSING A JUNGHANNS.NET ISDN INTERFACE CARD!

PREPARING THE INSTALLATION:

PLEASE MAKE SURE THAT YOU HAVE THE **LINUX KERNEL SOURCES** OF YOUR PRESENT KERNEL INSTALLED AND CONFIGURED PROPERLY ON YOUR SYSTEM.

BRISTUFF REQUIRES THE FOLLOWING PACKAGES INSTALLED ON YOUR SYSTEM:

FOR SUSE LINUX:

- **gcc**
- **OpenSSL**
- **OpenSSL-dev**
- **wget**

```
Installation mit Hile von YaST
```

FOR DEBIAN:

- **build-essential**
- **ncurses-dev**
- **libssl-dev**
- **wget**

```
Server:~ # apt-get install build-essential
ncurses-dev libssl-dev wget
```

ADDITIONALLY YOUR COMPUTER HAS TO BE CONNECTED TO THE INTERNET.

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TASK SUMMARY:

TO INSTALL THE JUNGHANNS.NET QUADBRIEXPRRESS CARD, YOU HAVE TO FOLLOW THESE GENERAL STEPS:

1. CONFIGURE THE JUMPER SETTINGS ON YOUR JUNGHANNS.NET QUADBRIEXPRESS CARD

2. INSTALL THE JUNGHANNS.NET QUADBRIEXPRESS CARD IN YOUR COMPUTER

3. INSTALL THE DRIVERS AND CONFIGURE THE CARD FOR YOUR OPERATING SYSTEM

1. JUMPERSETTINGS

SO LET'S START WITH THE JUMPERSETTINGS!

THE FOLLOWING JUMPERS MUST BE CONFIGURED ON THE CARD:

1. NT/TE SETTINGS.
2. TERMINATION OF S/T INTERFACE.
3. POWER FEEDING
4. CARD SWITCHES

NOTE: FOR MOST USERS ONLY NT/TE SETTINGS ARE IMPORTANT TO LET THE CARD WORK PROPERLY.
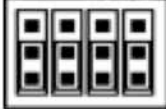
WARNING:

ENSURE THE RIGHT SETTING OF JUMPERS TO PREVENT DAMAGE ON YOUR ISDN AND COMPUTER EQUIPMENT.
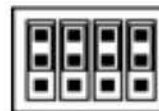
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QUADBRIEXPRESS 2.0 PCI ISDN CONFIGURATION OVERVIEW

TE SETTINGS
SET ALL JUMPERS TO THE BOTTOM TO SELECT TE MODE FOR THIS PORT

NT SETTINGS
SET ALL JUMPERS TO THE TOP TO SELECT NT MODE FOR THIS PORT

TERMINATION OF S/T INTERFACE (100Ω)

TERMINATION = ON

TERMINATION = OFF

S/T 1   S/T 2   S/T 3   S/T 4

CARD ID SWITCHES
CDIP SWITCHES 1 TO 3 CAN BE USED TO SET THE CARD ID (VERY USEFUL FO REMOTELY IDENTIFYING INDIVIDUAL CARDS)

HFC 4S

ON

PCM IN

PCM OUT

ONBOARD PFM CONNECTOR
PLEASE CLOSE THE JUMPER BRIDGES WHEN USING AN EXTERNAL PFM!

POWER FEEDING (ONLY FOR NT MODE)

POWER FEEDING ENABLED FOR THIS PORT (PFM REQUIRED)

POWER FEEDING DISABLED

POWER CONNECTOR
CONNECTOR FOR EXTERNAL POWER FEEDING MODULE TO FEED S/T INTERFACES OF UP TO 4 QUADBRI CARDS (AVAILABLE OPTIONALLY)

TOP VIEW OF THE CARD

YOU NEED:
- THE PCIEXPRESS-BASED JUNGHANNS.NET ISDN INTERFACE CARD YOU WANT TO INSTALL
- AN ANTI-STATIC WRISTBAND
- A PHLLIPS-HEAD SCREWDRIVER
- A FREE PCIEXPRESS SLOT*

* PLEASE DEACTIVATE THE IRQ-SHARING

1. OPEN THE COMPUTER CASE
2. UNSCREW THE METAL GUARD COVERING THE REAR OPENING FOR THE PCIEXPRESS SLOT
3. GENTLY INSERT THE TABBED EDGE OF THE PCIEXPRESS CARD INTO THE SLOT
4. PRESS DOWN FIRMLY ON THE TOP EDGE OF THE CARD UNTIL YOU HEAR THE PINS CLICK INTO PLACE
5. CHECK THE ALIGNMENT OF THE MATAL BRACKET. IF THE CARD IS PLACED CORRECTLY, YOU CAN FIX IT WITH THE SCREW YOU REMOVED IN STEP 2.
6. CLOSE THE COMPUTER CASE

JUST BUILD IN YOUR PCIEXPRESS CARD

WARNING:

ENSURE YOU TURNED OF THE COMPUTER AND REMOVED ALL CABLES FROM THE BACK BEFORE OPENING THE COMPUTER CASE!

ALWAYS PICK UP THE CARD BY ITS METAL BRACKET AND THE OUTER EDGE OF THE SILICON BOARD AND TAKE CARE NOT TO TOUCH ANY GOLD CIRCUITRY!

3. CONFIGURE AND INSTALL THE DRIVERS

AT FIRST FIND OUT THE LATEST BRISTUFF DRIVER VERSION AT OUR WEBSITE:

http://www.junghanns.net/en/download.html

TO INSTALL THE BRISTUFF DRIVERS FOR YOUR CARD PLEASE LOGIN TO YOUR COMPUTER AS **ROOT.**

IN THE FOLLOWING STEPS YOU REPLACE "<VERSION>" WITH THE LATEST VERSION NUMBER, E.G. 0.3.0-PRE-1y-q

CHANGE THE DIRECTORY TO /usr/src/ :

```
Server:~ # cd /usr/src/
```

DOWNLOAD THE BRISTUFF DRIVERS:

```
Server:~ # wget http://www.junghanns.net/downloads/
bristuff-<version>.tar.gz
```

EXECUTE THE "TAR" COMMAND TO DECOMPRESS THE DRIVER FILES:

```
Server:~ # tar xvf bristuff-<version>.tar.gz
```

NOW RUN THE FOLLOWING COMMANDS TO INSTALL THE BRISTUFF AND ASTERISK DRIVERS:

```
Server:~ # cd /usr/src/bristuff-<version>/
Server:~ # ./install.sh
```

DURING THE INSTALLATION YOU HAVE TO PRESS <ENTER> A FEW TIMES. IF THERE WERE NO ERRORS DURING THE INSTALLATION PROCESS THE INSTALLATION HAD BEEN SUCCESSFULL.

4. COPY THE CONFIGURATION FILES

NOW WE NEED TO COPY SOME CONFIGURATION FILES.
COPY THE QOZAP/ZAPATA.CONF TO /ETC/ASTERISK AND COPY THE
QOZAP/ZAPTEL.CONF FILE TO /ETC

```
Server:~ # cd /usr/src/bristuff-<version>/
Server:~ # cp qozap/zapata.conf /etc/asterisk
Server:~ # cp qozap/zaptel.conf /etc
```

THE INSTALLATION OF THE DRIVERS IS COMPLETED AT THIS POINT.
NOW WE ARE ABLE TO LOAD THE DRIVERS.

TO LOAD THE DRIVERS WE HAVE TO RUN THE FOLLOWING
COMMANDS:

```
Server:~ # modprobe qozap
Server:~ # ztcfg
```

IF THE DRIVERS WERE INSTALLED CORRECTLY, THE LIGHTS ON THE
CARD WILL TURN ON AFTER YOU HAVE LOADED THE DRIVERS.

WARNING:

IF YOU HAVE ANY OTHER ZAPTEL DEVICE IN YOUR
MACHINE THEN MAKE SURE THAT ZTCFG ONLY
RUNS ONCE! (OR RUN ZTCFG -S AND THEN ZTCFG
AGAIN)

TO START YOUR ASTERISK CLI JUST RUN THE
FOLLOWING COMMAND:

```
Server:~ # asterisk -vvvgc
```

SO WE ARE DONE AND ALL I HAVE TO SAY IS
HAVE FUN AND GOOD BYE. SEE YOU NEXT
TIME, YOUR ANT BILL.