testing environment

Debian 11.6.0
Dahdi-3.2.0
Asterisk-20
Libpri-1.6.0

download
Download the DAHDI source code package from the OpenVox official website
https://www.openvoxtech.com/pub/drivers/dahdi-linux-complete/openvox_dahdi-linux-complete-current.tar.gz
Get Libpri from Digium website:
https://downloads.asterisk.org/pub/telephony/libpri/libpri-current.tar.gz
Get Asterisk from Digium website:
https://downloads.asterisk.org/pub/telephony/asterisk/asterisk-20-current.tar.gz
Usually run the following command in the directory/etc/src/to download and decompress DAHDI, Asterisk, and Libpri:
#wget https://www.openvoxtech.com/pub/drivers/dahdi-linux-complete/openvox_dahdi-linux-complete-current.tar.gz
#wget https://downloads.asterisk.org/pub/telephony/asterisk/asterisk-20-current.tar.gz
#wget https://downloads.asterisk.org/pub/telephony/libpri/libpri-current.tar.gz
tar -xvzf openvox_dahdi-linux-complete-current.tar.gz
tar –xvzf asterisk-20-current.tar.gz
tar –xvzf libpri-current.tar.gz

Install

Dependency package installation:
apt-get update
apt-get install build-essential
apt-get install git
apt-get install linux-headers-`uname -r`

Install Dahdi
Convert the path to the directory of the dahdi linux-comple-XX source code package (XX represents the DAHDI version), and run the following command to install DAHDI:
cd /usr/src/dahdi-linux-complete-XX
make
make install
make config

Install libpri
Convert the path to the directory where the libpri source code package is located, and run

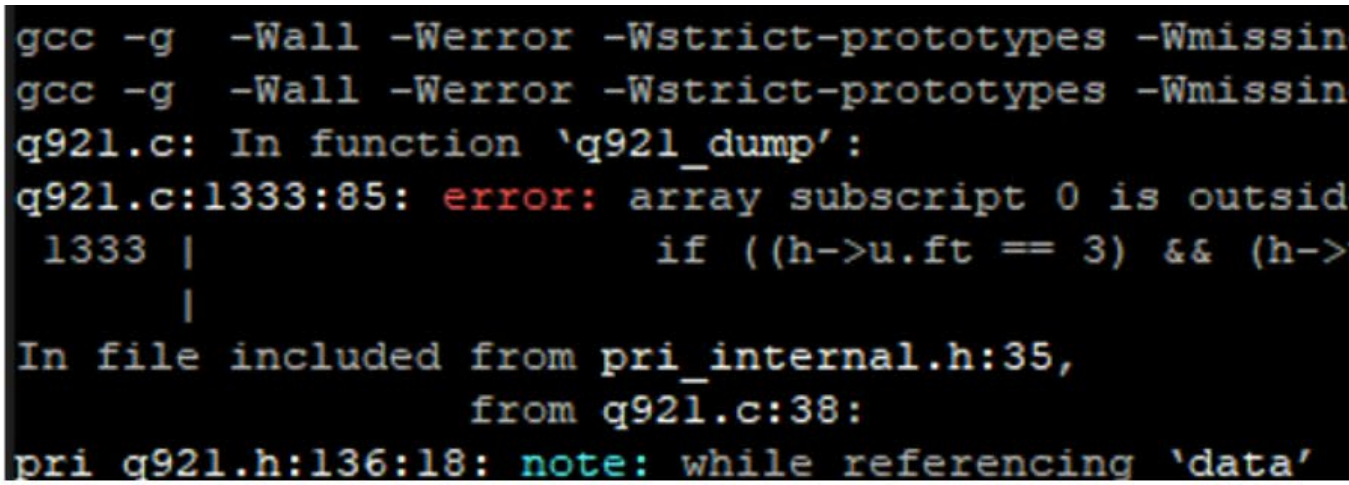
the following command to install Libpri:

cd libpri-XX

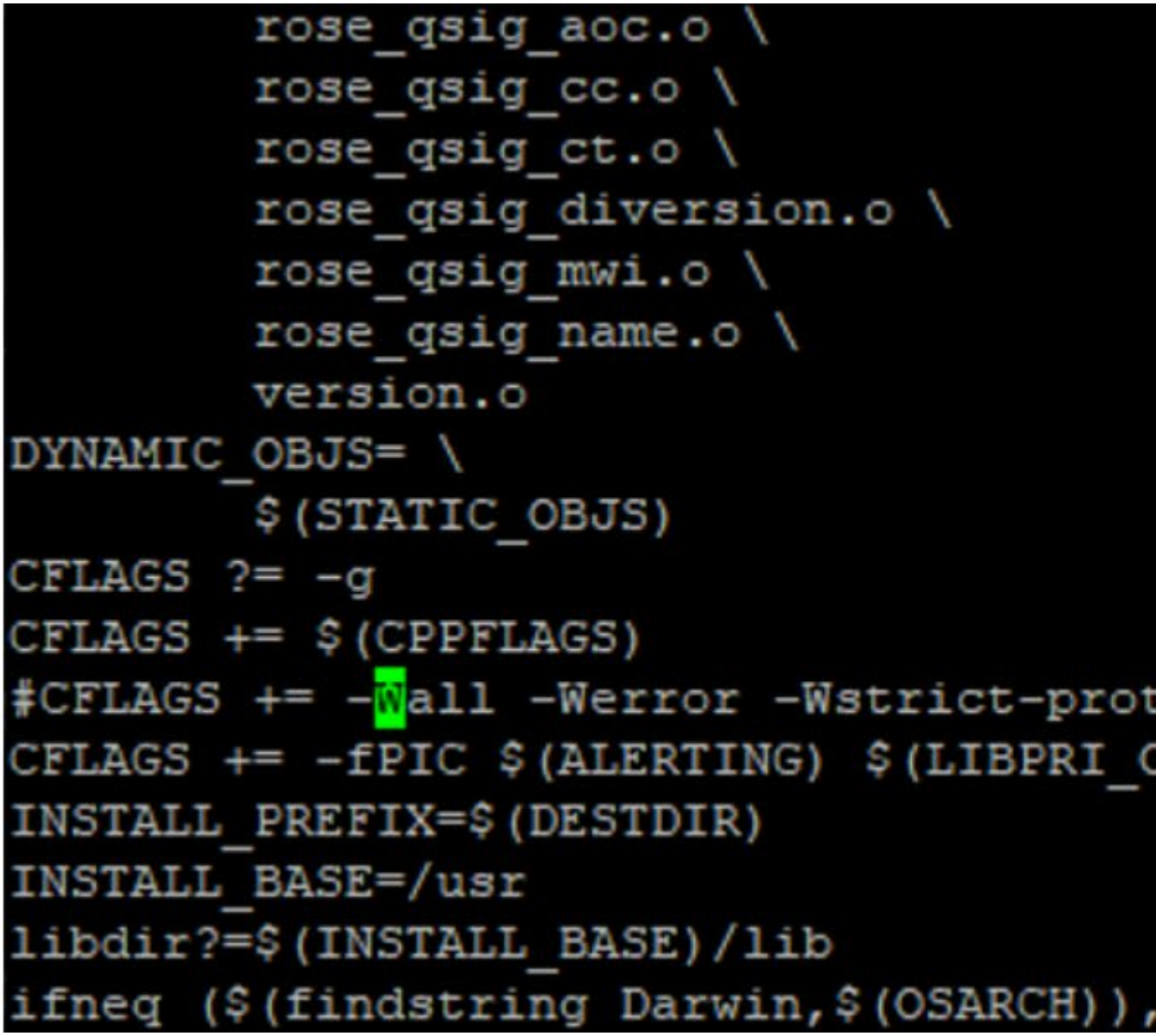
make

make install

Compilation encountered issues



Solution: Annotate the - all line in the libss7-1.6.0/Makefile file file



Install Asterisk

Convert the path to the Asterisk source code package directory (XX represents Asterisk version), and run the following command to install Asterisk:

cd asterisk-20.xx

Dependency package installation

#contrib/scripts/install_prereq install

. /configure

make

make install

make samples

configuration

Load Driver

After compilation, please run the following instructions to load the driver according to the corresponding board model:
modprobe dahdi
#Modprobe zaphfc (B100 in TE mode)//If it is NT mode, then modprobe zaphfc modes=1 force_11_up=0
#Modprobe wcb4xxp (B200, B400, B800)//If B800 has an NT port, refer to the following diagram to explain how to set the te_nt_override value according to the corresponding NT port and then execute modprobe wcb4xxp te_nt_override=required value
dahdi_genconf -vvv
dahdi_cfg –vvvvvv

If B100 and B800 have NT ports, edit/etc/modprobe.d/dahdi.cnf according to the following diagram to automatically load parameters during startup
vi /etc/modprobe.d/dahdi.conf

```
# You should place any module parameters for your DAHDI
# Example:
#
# options wctdm24xxp latency=6

# B100 in NT mode
options modprobe zaphfc modes=1 force_11_up=0

#The default value of parameter te_nt_override=0xFF set
#ports as TE mode. "1" stands for TE,"0" stands for NT.
#example, if user wants to set port 1-2 to TE mode, port
#te_nt_override should be 0x03 (it is 0000 0011 in binar
#The system runs "modprobe wcb4xxp" with value 0xFF in d
#it will set all ports as TE mode , so it is necessary t
#wcb4xxp te_nt_override=0x03" for NT mode when the machi

#B800 port 1-2 to TE mode, port 3-8 to NT mode
options modprobe wcb4xxp te_nt_override=0x03
~
~
~
```

Under normal circumstances, after executing the command "dahdi_gengconf", the system will automatically generate two files:/etc/dahdi/system.exe and/etc/asterisk/dahdi-channels.exe. Check if the generated configuration file meets your requirements, or you can manually modify the relevant parameters. It is worth noting that it is confirmed that dahdi-

channels.conf is included in chan_dahdi.conf. If not, please run the command:
echo "#include dahdi-channels.conf" >>/etc/asterisk/chan_dahdi.conf

Add corresponding board drivers to/etc/dahdi/modules to achieve automatic loading of board drivers upon startup
#cp /etc/dahdi/modules.sample /etc/dahdi/modules
#chmod 0777 /etc/dahdi/modules
#vi /etc/dahdi/modules

```
# Contains the list of modules to be loaded / unloaded b
#
# NOTE:  Please add/edit /etc/modprobe.d/dahdi or /etc/m
#        would like to add any module parameters.
#
# Format of this file: list of modules, each in its own
# Anything after a '#' is ignore, likewise trailing and
# whitespaces and empty lines.

# Digium TE205P/TE207P/TE210P/TE212P: PCI dual-port T1/E
# Digium TE405P/TE407P/TE410P/TE412P: PCI quad-port T1/E
# Digium TE220: PCI-Express dual-port T1/E1/J1
# Digium TE420: PCI-Express quad-port T1/E1/J1


#OpenVox D130
opvxd115

#OpenVox D230
#OpenVox D430
#OpenVox D830
#OpenVox D1630
wct4xxp

-
#OpenVox B100
zaphfc

#OpenVox B200
#OpenVox B400
#OpenVox B800
wcb4xxp

#OpenVox A400
wctdm

#OpenVox A810
#OpenVox A1610
#OpenVox A2410
opvxa24xx

# Digium TE435
```

Using B100 board as an example to configure
The following shows a portion of the basic channel configuration file/etc/dahdi/systemconf:

```
# Span 1: ZTHFC1 "HFC-S PCI A ISDN card 0 [TE] " (MASTER)
span=1,1,0,ccs,ami
# termtype: te
bchan=1-2
hardhdlc=3
echocanceller=mg2,1-2
# Global data
loadzone = us
defaultzone = us
```

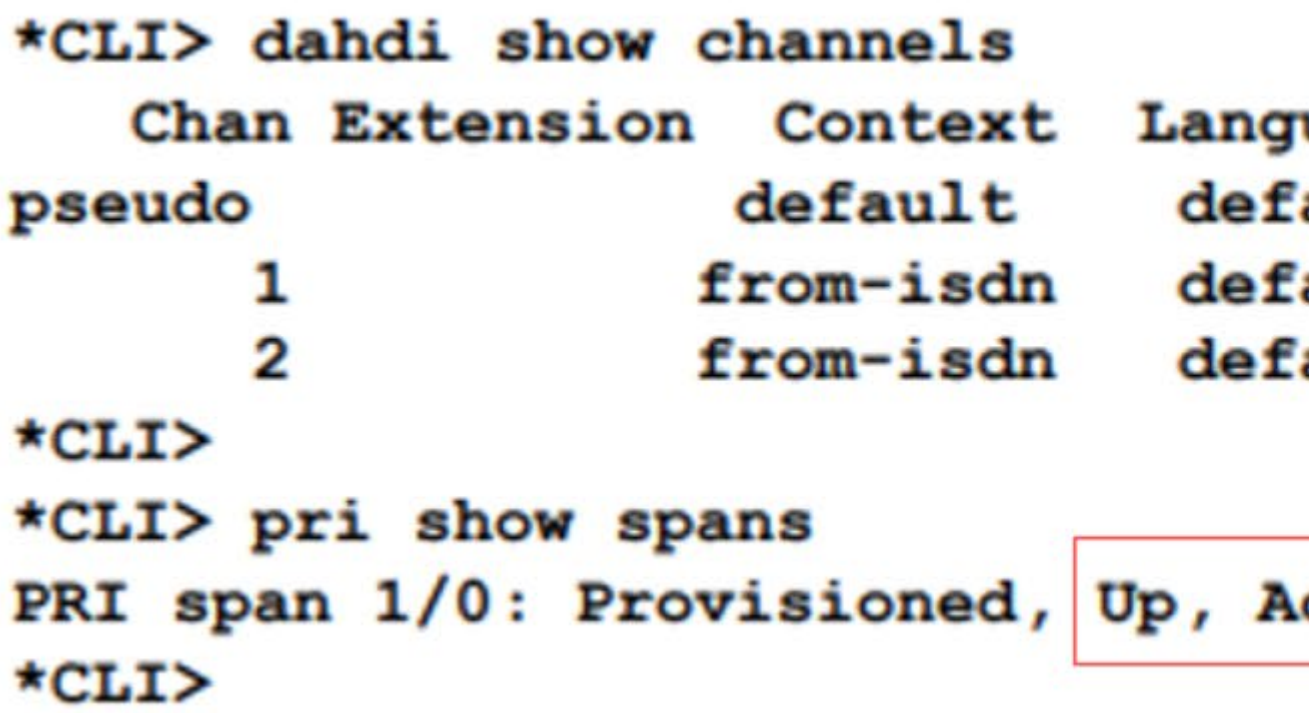
A part of the file/etc/asterisk/dahdi-channels.exe is shown in the following figure:

```
; Span 1: ZTHFC1 "HFC-S PCI A ISDN card 0 [TE] " (MASTER)
group=0,11
context=from-isdn
overlapdial=yes # must add this line
switchtype = euroisdn
signalling = bri_cpe_ptmp
channel => 1-2
context = default
group = 63
```

Start Asterisk

```
# asterisk -vvvvvgc
```

If Asterisk is already running, run 'asterisk-r' instead. In the CLI interface, please run Dahdi Show Channels "and" Pri Show Spans ":



Write a dialing plan

Please write a dial plan in the extensions.onf file. The following diagram illustrates a simple inbound and outbound plan:

#vi /etc/asterisk/extensions.conf

When a call comes in from the BRI board, SIP/100 will ring If the extension created is xxxx, modify it to sip/xxxx

[from-isdn]

exten => _X.,1,Dial(SIP/100,,r)

exten => _X.,n,Hangup()

When the extension is set to 'from internet', outgoing calls will be sent from E1 card dahdi/1 (where 1 represents channel 1), with ${INTERN} being the called number

[from-internal]

exten => _X.,1,Dial(dahdi/1/${EXTEN},,r)

exten => _X.,n,Hangup()

After setting up the dial plan, please run "asterisk-r" and execute the command "dialplan reload" in the CLI interface, and then you can dial