

# Secure audio/video services – → H.323, H.350 and Firewalls

Setup, Installation and Configuration of  
GnuGK using H.350 endpoint authentication

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## → Hardware/Software requirements

- Hardware
  - A ‘modern’ PC should do the job
    - Some specs: 2GHz, 512MB, 100GB, 100Mb/s
- Software
  - Linux
  - A running OpenLDAP Server
    - openldap-devel packets!!

## → Hardware/Software requirements

- Download the following files from the workshop webpage
  - gnugk-2.0.8.tar.gz
  - pwlib-Pandora\_release-src.tar.gz
  - openh323-Pandora\_release-src.tar.gz
  - ldaplink.cxx
  - questnet-sample.conf

**NOTICE:** Yes, there are way newer version of GnuGK available, however, version 2.0.8 is the last version with an implemented and working H.235 stack ? we want H.235 in all devices!!

## → Installation/Configuration of GnuGK

- Compilation of pwlib

```
kewin@questnet> gzip -d pwlib-Pandora_release-src.tar.gz
kewin@questnet> tar -xvf pwlib-Pandora_release-src.tar
kewin@questnet> mkdir /usr/local/lib/pwlib_pandora
kewin@questnet> mv pwlib/* /usr/local/lib/pwlib_pandora
kewin@questnet> ln -sf /usr/local/lib/pwlib_pandora \
    /usr/local/lib/pwlib
kewin@questnet> export PWLIBDIR=/usr/local/lib/pwlib
kewin@questnet> cd $PWLIBDIR
kewin@questnet> ./configure --disable-sasl
kewin@questnet> make
```

## → Installation/Configuration of GnuGK

- Compilation of openh323

```
kewin@questnet> gzip -d openh323-Pandora_release-src.tar.gz
kewin@questnet> tar -xvf openh323-Pandora_release-src.tar
kewin@questnet> mkdir /usr/local/lib/openh323_pandora
kewin@questnet> mv openh323/* /usr/local/lib/openh323_pandora
kewin@questnet> ln -sf /usr/local/lib/openh323_pandora \
    /usr/local/lib/openh323
kewin@questnet> export OPENH323DIR=/usr/local/lib/openh323
kewin@questnet> cd $OPENH323DIR
kewin@questnet> ./configure
kewin@questnet> make
```

Now go and grab a cup of coffee....

# → Installation/Configuration of GnuGK

- Compilation of GnuGK

```
kewin@questnet> gzip -d gnugk-2.0.8.tar.gz
kewin@questnet> tar -xvf gnugk-2.0.8.tar
kewin@questnet> mkdir /srv/gnugk-2.0.8
kewin@questnet> mv openh323gk/* /srv/gnugk-2.0.8
kewin@questnet> mkdir /srv/gnugk-2.0.8/config
kewin@questnet> cp ldaplink.cxx /srv/gnugk-2.0.8/
kewin@questnet> cp questnet-sample.conf /srv/gnugk-2.0.8/config/
kewin@questnet> export LD_LIBRARY_PATH=$PWLIBDIR/lib:$OPENH323DIR/lib
kewin@questnet> cd /srv/gnugk-2.0.8
kewin@questnet> NO_PGSQL=1 NO_MYSQL=1 NO_RADIUS=1 HAS_ACCT=1 \
HAS_LDAP=1 LARGE_FDSET=16384 make both
```

# → Installation/Configuration of GnuGK

- Copy the questnet-sample.conf in a config/ subdirectory or to /etc/
- Sample file consist of 7 sections
  - Global settings
    - General settings of the GK, e.g. the IP address, name, etc.
  - Routing and proxy settings
    - Specific routing settings, and wheather the proxy is used or not
  - Gatekeeper monitoring
    - Who is allowed to monitor the GK?
  - Client authentication
    - Specification and additional settings for the client authentication
  - Neighboring
    - Neighbor Gatekeeper
  - Some extra stuff :-D
  - Accounting

# → Installation/Configuration of GnuGK

- Global settings

```
[Gatekeeper::Main]
Fourtytwo=42
Name=questnet.net.au
Home=xxx.xxx.xxx.xxx
EndpointIDSuffix=_gk-X.questnet.net.au
TimeToLive=300
TotalBandwidth=-1
StatusPort=7000
```

# → Installation/Configuration of GnuGK

- Routing and proxy settings

```
[RoutedMode]
```

```
GKRouted=1
```

```
H245Routed=1
```

```
CallSignalPort=1720
```

```
AcceptNeighborsCalls=1
```

```
AcceptUnregisteredCalls=1
```

```
RemoveCallOnDRQ=0
```

```
DropCallsByReleaseComplete=1
```

```
SendReleaseCompleteOnDRQ=1
```

```
SupportNATedEndpoints=1
```

```
[Proxy]
```

```
Enable=1
```

# → Installation/Configuration of GnuGK

- Gatekeeper monitoring

```
[GKStatus::Auth]  
rule=allow
```

# → Installation/Configuration of GnuGK

- Client authentication

```
[Gatekeeper::Auth]
```

```
LDAPAliasAuth=required;RRQ  
default=allow
```

```
[GkLDAP::LDAPAttributeNames]
```

```
H323ID=h323Identityh323-ID  
TelephoneNo=h323IdentityDialedDigits  
IpAddress=h323IdentityTransportID  
H235PassWord=h235IdentityPassword
```

```
[GkLDAP::Settings]
```

```
ServerName=xxx.xxx.xxx.xxx  
ServerPort=389  
SearchBaseDN=dc=sample,dc=questnet,dc=net,dc=au  
BindUserDN=cn=manager,dc=sample,dc=questnet,dc=net,dc=au  
sizeLimit=0  
timeLimit=5
```

# → Installation/Configuration of GnuGK

- Neighboring

```
[RasSrv::Neighbors]  
AUCGK=203.22.212.235:1719;*;
```

## → Installation/Configuration of GnuGK

- Some extra stuff

```
[RasSrv::ARQFeatures]  
CallUnregisteredEndpoints=1
```

```
[RasSrv::LRQFeatures]  
IncludeDestinationInfoInLCF=1  
CiscoGKCompatible=1
```

# → Installation/Configuration of GnuGK

- Accounting

```
[CallTable]
```

```
GenerateNBCDR=1
```

```
GenerateUCCDR=1
```

```
DefaultCallTimeout=0
```

```
AcctUpdateInterval=0
```

```
[Gatekeeper::Acct]
```

```
FileAcct=required;start,update,stop,on,off
```

```
default=accept
```

```
[FileAcct]
```

```
DetailFile=/var/log/acct.log
```

```
Rotate=0
```

## → Installation/Configuration of GnuGK

- You should now have a working Gatekeeper/Proxy using H.350 client authentication. Start the system by typing:

```
/srv/gnugk-2.0.8/obj_linux_x86_r/gnugk -c /etc/questnet-sample.conf &
```



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