Introduction

The MurmurVoice module is currently tested with

- murmur 1.2.1
- OpenSim 0.7.1 postfix to 0.7.2.RC2

Pre-Requisites

• OpenSim complete tree installed including source code

Murmur

1. Download and unpack murmur:

```
# wget http://sourceforge.net/projects/mumble/files/Mumble/1.2.1/murmur-
static_x86-1.2.1.tar.lzma/download
# lzma -d murmur-static_x86-1.2.1.tar.lzma
# tar -xvf murmur-static_x86-1.2.1.tar
```

2. Edit murmur.ini:

```
database=<sqlight-file>
dbus=session
ice="tcp -h 127.0.0.1 -p 6502"
logfile=<log-file>
pidfile=<murmur-pid-file>
port=64737
```

<sqlight-file> The location can be freely defined. It will be created automatically

If the murmur server is running on another computer, use that IP n the ice parameter.

3. Start murmur (here with PWD installation dir):

```
# ./murmur.x86 -ini ./murmur.ini
```

Murmur will automatically start as daemon.

4. In order to shutdown glacier, it is necessary to use the kill command. The best is to use it in combination with a pid file. For example:

```
kill `cat <murrur-pid-file>`
```

ZeroC-Ice

As an alternative you can find Ice.dll and Glacier2.dll from the whisper server src/deps directory.

- 1. Install the package ice33-services (Ubuntu 9.10).
- 2. If the files Ice.dll and Glacier2.dll are not in the path, they must be copied to opensim/bin.

NOTE: Murmur 1.2.1 uses Ice 3.3.1. Therefore murmur.cs has been generated with Ice 3.3.1. If you use another version of murmur or Ice, you must recreate murmur.cs before compiling whisper.

Glacier2

THE CURRENT VERSION 0.2.0 OF THE MURMUR VOICE MODLUE SUPPORTS GLACIER2. HOWEVER IT HAS NOT BEEN FULLY TESTED. IF YOU RELY ON IT PERFORM SOME TESTS BEFOREHAND.

Glacier2 is a Ice routing and firewall utility, and allows you to securely run the server on one machine and murmur on another. Note that if both server and client are on a secure LAN, you can just use iptables to protect the Ice port, which is a lot easier than setting up Glacier2.

The examples here assume that *<Interface-IP>* is the public IP address of the server running Murmur. We're going to use the username "magic" with the password "pink".

Glacier2 will run on the same server where murmur is running.

Configuring Glacier2

1. Edit config file config.glacier2:

```
Glacier2.Client.Endpoints=tcp -h < Interface-IP> -p 4063
Glacier2.Server.Endpoints=tcp -h 127.0.0.1
Glacier2.SessionTimeout=60
Glacier2.CryptPasswords=passwords.txt
```

2. Then, create a password hash using the OpenSSL utility.

```
openssl passwd pink
```

this will spit out a hash, which looks something like CTThafhdv9Lz2

3. Add the follwing line to passwords.txt containing:

```
magic CTThafhdv9Lz2 (Example only)
```

4. Start glacier2 as this:

```
glacier2router --Ice.Config=config.glacier2 --daemon --pidfile <glacier2-pid-file>
```

5. In order to shutdown glacier2 it is necessary to issue a kill command on the pid:

```
kill `cat <glacier2-pid-file>`
```

OpenSim

Using the Pre-Compiled Binary

1. Checkout the source code to a new directory (here MurmurVoice):

```
# git clone git://github.com/vgaessler/whisper_server.git MurmurVoice
# cd MurmurVoice
# git reset --hard 0.2.0
```

- 2. Manually copy Ice.dll and Glacier2.dll from the /src/deps folder to the OpenSim bin directory.
- 3. Build with nant passing the path to the OpenSim bin directory as property osbin:

```
# nant -D:obin=<path-to-opensim/bin>
```

The Module is compiled and the resulting dll is copied to the opensim directory.

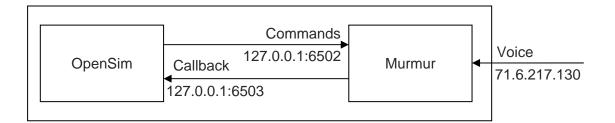
4. Add the following lines to OpenSim.ini:

```
[MurmurVoice]
```

; New voice daemon which will do speaker indication,

```
; positional voice, and high quality audio codec. Host voice on the
; same server, or use Glacier2 to proxy the insecure ICE protocol.
enabled = true
; Hostname to send the user
murmur_host = <murmur-ip>
; Server identifier (normally 1)
murmur_sid
           = 1
; Endpoint to system running mumble (see murmur.ini)
murmur_ice = tcp -h 127.0.0.1 -p 6502
; Endpoint to this system: callback entry from murmur server
; (not needed for glacier2)
murmur_ice_cb= tcp -h 127.0.0.1 -p 6503
; Parent channel name to use
channel_name = <channel-name> must be the same as the region name
; Enable use of glacier2 (ignore murmur_ice_cb if false)
           = true
glacier
: the following parameters are only used when working with Glacier 2
; Glacier proxy
glacier_ice = Glacier2/router:tcp -p 4063 -h <murmur-ip>
; Glacier session user
glacier_user = <glacier2-user-name>
; Glacier session password
glacier_pass = <glacier2-password>
```

Example 1: Direct Connection on Same Server



Murmur.ini

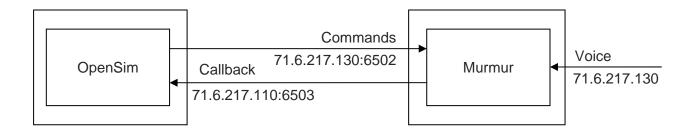
```
database=/var/murmur.sqlite
dbus=session
ice="tcp -h 127.0.0.1 -p 6502"
logfile=/var/murmur.log
pidfile=/tmp/murmur.pid
port=64737
```

OpenSim.ini

```
[MurmurVoice]
    ; New voice daemon which will do speaker indication,
    ; positional voice, and high quality audio codec. Host voice on the
   ; same server, or use Glacier2 to proxy the insecure ICE protocol.
   enabled
                = true
    ; Hostname to send the user
   murmur_host = 71.6.217.130
   ; Server identifier (normally 1)
   murmur_sid
                = 1
    ; Endpoint to system running mumble
   murmur_ice = tcp -h 127.0.0.1 -p 6502
    ; Endpoint to this system (not needed for glacier2)
   murmur_ice_cb= tcp -h 127.0.0.1 -p 6503
    ; Parent channel name to use
   channel_name = MyRegion
    ; Enable use of glacier2 (ignore murmur_ice_cb if false)
                = false
   glacier
    ; Glacier proxy
   glacier_ice = Glacier2/router:tcp -p 4063 -h <murmur-ip>
    ; Glacier session user
   glacier user = <glacier2-user-name>
    ; Glacier session password
   glacier_pass = <glacier2-password>
```

The Glacier2 settings will not be taken into account.

Example 2: Connection Between two Different Servers



Murmur.ini

```
database=/var/murmur.sqlite
dbus=session
ice="tcp -h 71.6.217.130 -p 6502"
logfile=/var/murmur.log
pidfile=/tmp/murmur.pid
port=64737
```

OpenSim.ini

[MurmurVoice]

```
; New voice daemon which will do speaker indication, ; positional voice, and high quality audio codec. Host voice on the ; same server, or use Glacier2 to proxy the insecure ICE protocol. enabled = true
```

```
; Hostname to send the user
murmur_host = 71.6.217.130
; Server identifier (normally 1)
murmur_sid
            = 1
; Endpoint to system running mumble
murmur_ice = tcp -h 71.6.217.130 -p 6502
; Endpoint to this system (not needed for glacier2)
murmur_ice_cb= tcp -h 71.6.217.110 -p 6503
; Parent channel name to use
channel_name = MyRegion
; Enable use of glacier2 (ignore murmur_ice_cb if false)
            = false
glacier
; Glacier proxy
glacier_ice = Glacier2/router:tcp -p 4063 -h <murmur-ip>
; Glacier session user
```

The Glacier2 settings will not be taken into account.

glacier_user = <glacier2-user-name>
; Glacier session password
glacier_pass = <glacier2-password>