Icecast is a open source streaming protocol
This is based on ogg
server does not need to care about the format(ogg), it just forward request data coming

# Stream process

- client initially do a non-standard method(SOURCE) HTTP request to the server
- it's uri is knows as stream mount point it the uri others listening to the music
- server can authorize the request if needed (normally via basic auth)
- once it does the authentication, server responds
  - 200 OK
    - after client receives this, it will simply send music data (ogg)
    - server takes data and send it to all connected clients
  - 404 Unauthorized
    - server close the socket

## Sample Request to Stream

following is first few bytes of the initial request for the icecast server asking to stream my music.

```
SOURCE /stream HTTP/1.0
Authorization: Basic c291cmNlOmhhY2ttZQ==
ice-bitrate: 128
ice-name: Arunoda Susiripala's Broadcast
ice-genre:
ice-description:
ice-url: http://www.rogueamoeba.com/nicecast/
ice-public: 1
User-Agent: aucast/1.0
Content-Type: audio/mpeg
```

`HTTP/1.1 200 OK`

```
...D...........................................................
...............................................................
...............................................................
...............................................................
............................................................d....
.W.0`.4..-....!.b....(.+..`...`.
.$..@....y......^!.................C...@....L....|..2.......... ..3.`
s.......|>...........4..$.r .....~.... g..=.V.|1.....O..c......?.........,.2f.
```

## Implementing Server with Node

- NodeJS does not support non-standard HTTP methods
- Since then we cannot use node's `http` module for this
- we've to use `net` module to access TCP raw data and parse HTTP ourselves