

Project Rajio

A web radio based on distributed media storage.

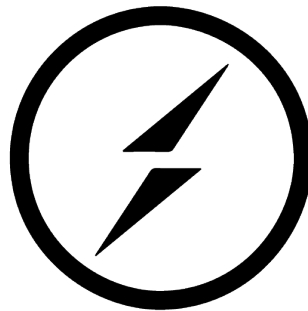
聽說期末很爆炸 (explosion~)
所以簡報就用極簡風

絕對不是因為懶



Requirements

- Python
 - eyeD3
 - gevent
- Node.js
 - Express
 - Socket.io
 - etc.



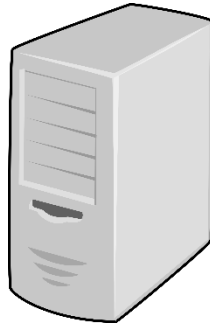
- JQuery / Materialize css
- Icecast2 / iceS



Architecture



webpage



www
server
(master)

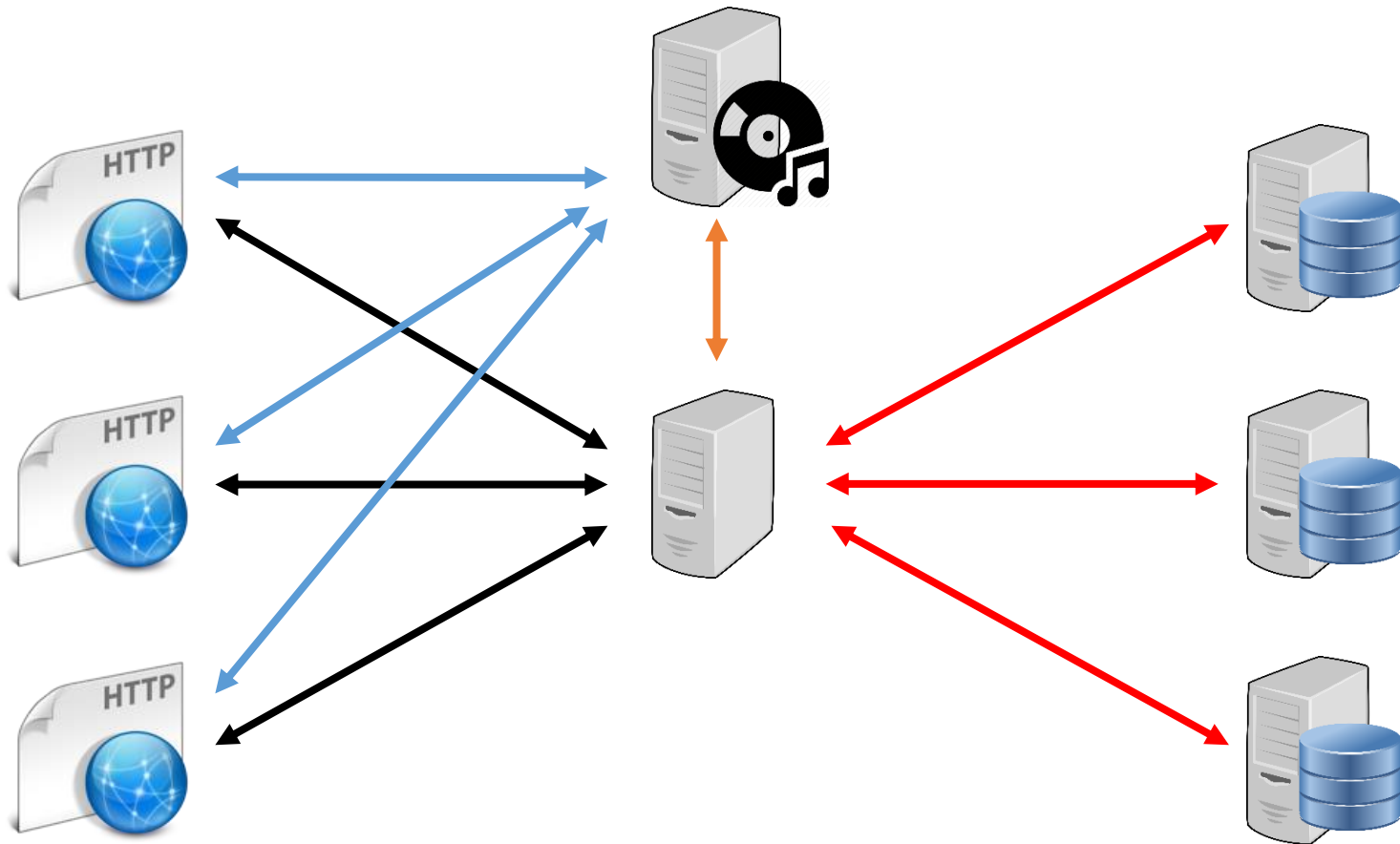


Song server
(slave)



Streaming
server

Architecture (Cont'd)



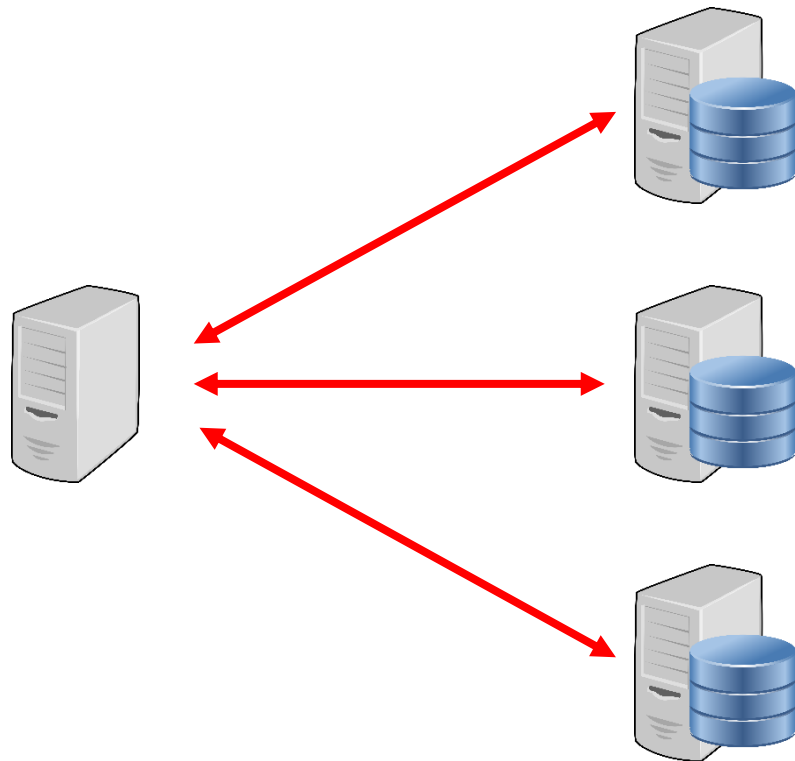
Architecture (Cont'd)

- Python

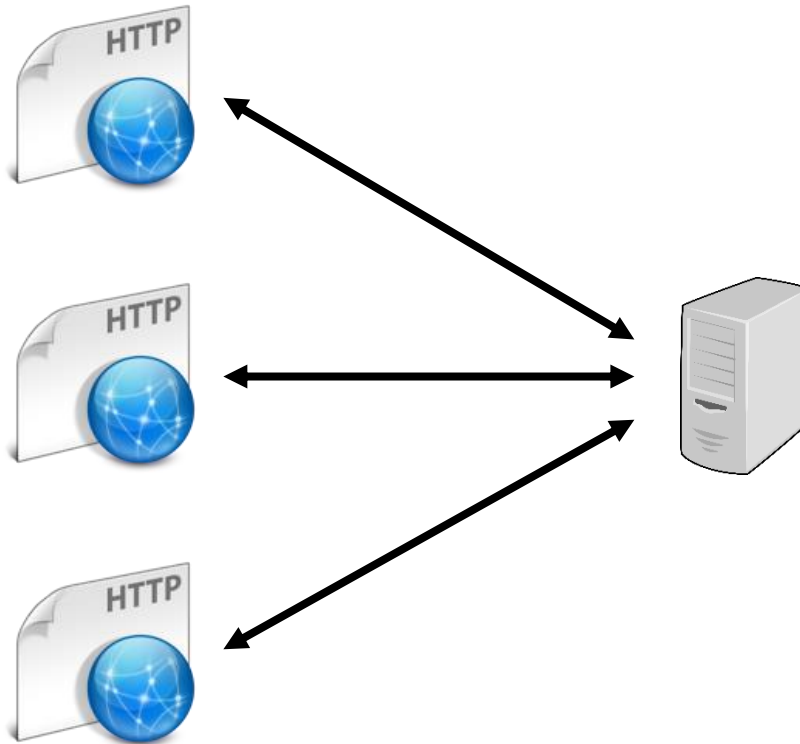
- eyeD3
- gevent / greenlet
- encoding issue

- Node.js

- net (TCP)
- child_process.spawn
- fetching snapshot
- security issue
- ip address mapping

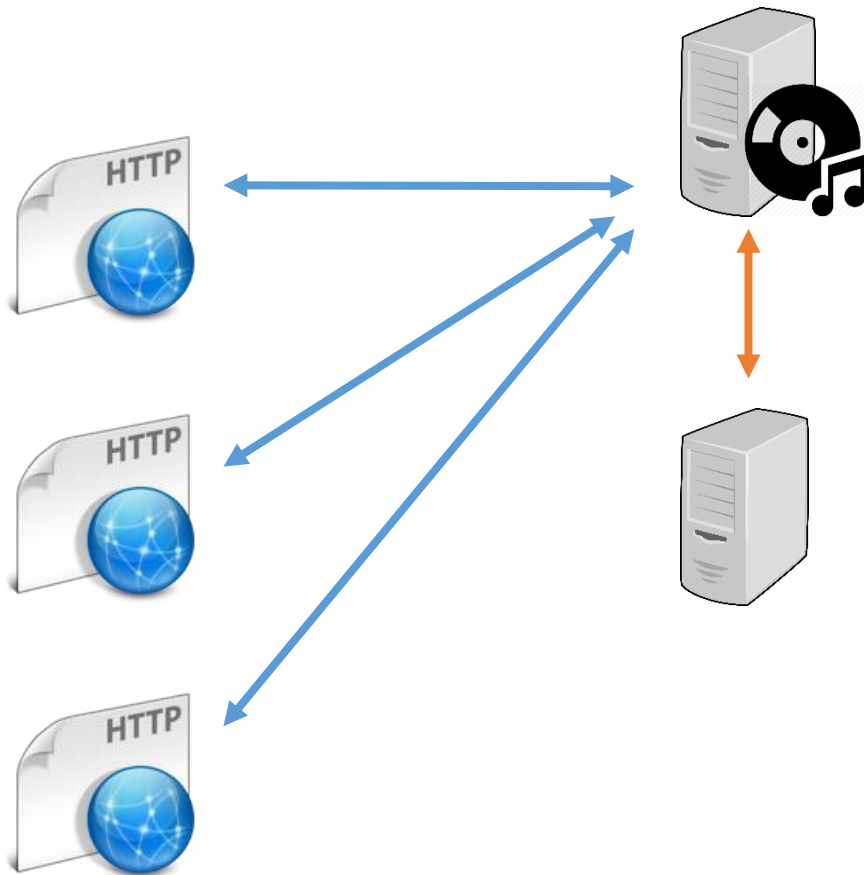


Architecture (Cont'd)



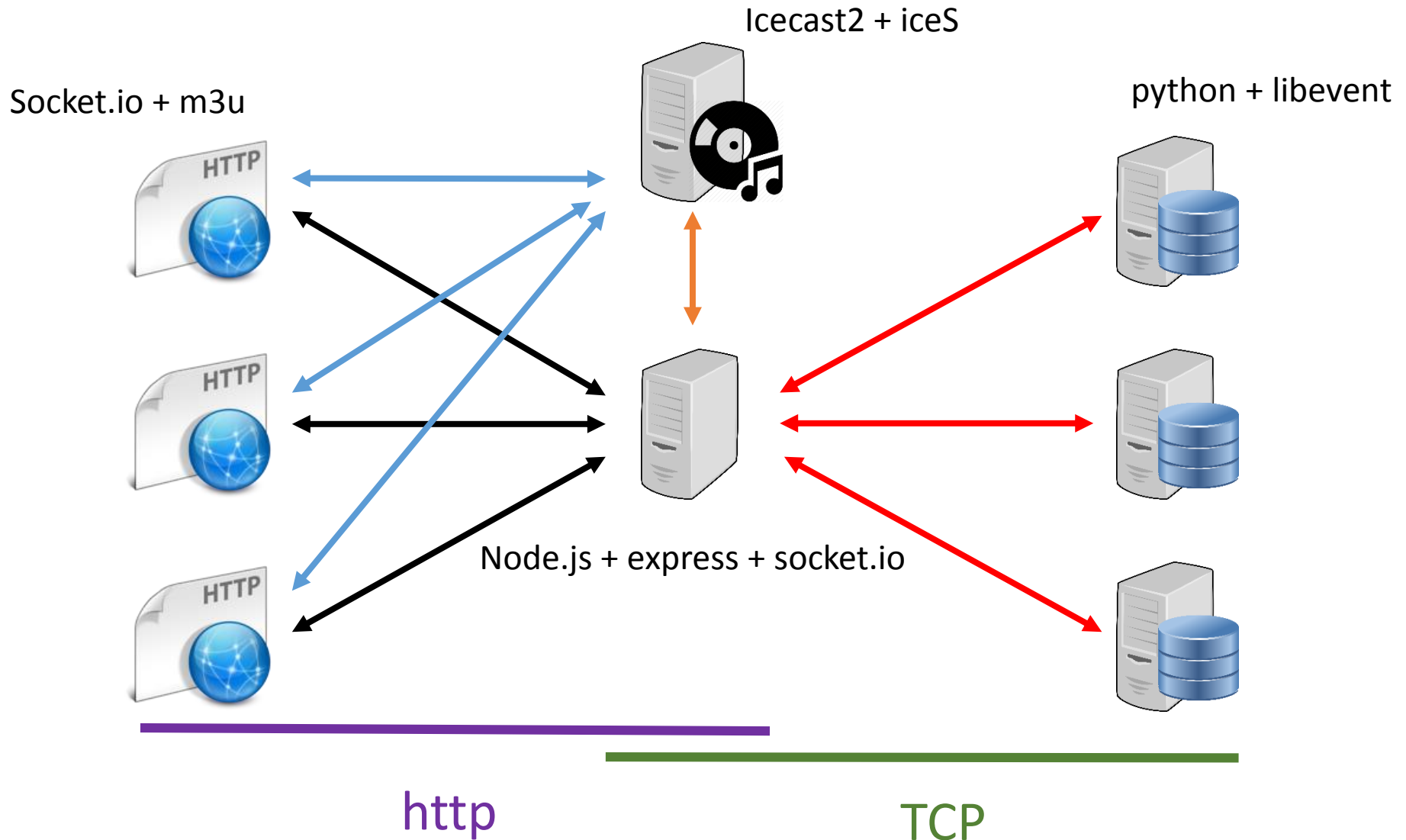
- Socket.io
 - websocket (http)
- Node.js
 - merge snapshot
 - resnap snapshot
 - Best matching

Architecture (Cont'd)



- Icecast2
 - Shoutcast
 - Ogg Vorbis
- IceS
 - mp3 lame
- HTML 5
 - Audio : m3u

Architecture (Cont'd)



Further more ...

- Broken pipe strategy
- Server down strategy enforcement
- Meta info search / filter
- Windows encoding issue
- Lyrics display (basic crawler completed)
- Covers display / Cover crawler
- Icecast2 current title encoding issue
- Bullet screen support
- Faster performance, smaller memory usage

Live Demo



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