

1 上节课回顾

主要是部署相关的问题

(1) 上传文件超过一定的大小报错

先查看日志: tail -f /usr/local/nginx/logs/error.log

2022/02/25 20:29:58 [error] 1397#0: *405 client intended to send too large body

修改nginx.conf

client_max_body_size 64M; #多少M根据实际情况填写

```
http {
    include      mime.types;
    default_type  application/octet-stream;

    #log_format  main  '$remote_addr - $remote_user [$time_local] "$request
    #              '$status $body_bytes_sent "$http_referer' '
    #              '"$http_user_agent" "$http_x_forwarded_for"';

    #access_log  logs/access.log  main;

    sendfile      on;
    #tcp_nopush    on;

    client_max_body_size 64M; #多少M根据实际情况填写

    #keepalive_timeout  0;
    keepalive_timeout  65;

    #gzip  on;

    server {
        listen      80;
        server_name  localhost;
        index index.html index.htm default.htm default.html;
        #root /home/liaoqingfu/tc-front;
        root /root/tuchuang/0voice_tuchuang/tc-front;

        autoindex off;
    }
}
```

然后重启nginx。

(2) 加fastdfs-nginx-module后nginx启动异常

需要先启动tracker server

(3) 照抄ip的问题

```
[2021-05-20 04:18:49] ERROR - file: tracker_proto.c, line: 50, server: 120.27.131.197:22122, response status 28 != 0
```

(4) 路径不对

, "/home/lyt/fastdfs/storage`" can't be accessed,

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最好是pwd，然后复制出来路径填到配置文件里

2021/5/20 19:33:20

我试试

2021/5/20 19:35:11

卧槽，果然是，我用gedit打开，发现多一个字符

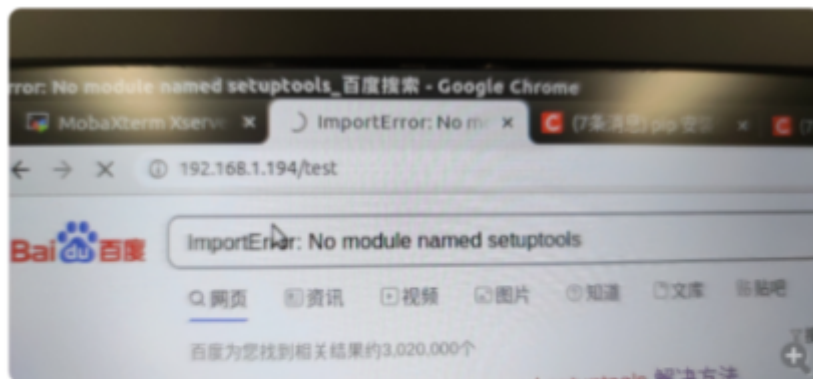
(5) fastcgi运行异常

```
root@lyt:/home/lyt/fast/test# spawn-fcgi -a 127.0.0.1 -p 8001 -f ./test
spawn-fcgi: child exited with: 127
root@lyt:/home/lyt/fast/test# ./test
./test: error while loading shared libraries: libfcgi.so.0: cannot open shared object file: No such file or directory
root@lyt:/home/lyt/fast/test#
```

编译后的库文件没有被识别，请先 ldconfig

(6) http访问异常

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老师，我这个test弹不出来

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看看 nginx的log

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```
root@iZbp1d83xkvoja33dn7ki2Z:~# ls -al /usr/local/nginx/logs/
total 444
drwxr-xr-x  2 root root  4096 May 21 11:33 .
drwxr-xr-x 11 root root  4096 May 12 20:55 ..
-rw-r--r--  1 root root 329153 May 21 15:15 access.log
-rw-r--r--  1 root root 98744  May 21 13:53 error.log
-rw-r--r--  1 root root    6  May 21 11:33 nginx.pid
```

查看nginx/logs下的日志

(7) redis编译依赖问题

2021/5/21 21:08:46

```
cd src && make install
make[1]: Entering directory '/home/lyt/fast/redis-6.2.3/src'
Hint: It's a good idea to run 'make test' ;)

INSTALL redis-server
INSTALL redis-benchmark
INSTALL redis-cli
make[1]: Leaving directory '/home/lyt/fast/redis-6.2.3/src'
root@lyt:/home/lyt/fast/redis-6.2.3# ls
00-RELEASENOTES  CONDUCT  COPYING  INSTALL  MANIFESTO  redis.conf  root
BUGS             CONTRIBUTING  deps  Makefile  README.md  retest      root
root@lyt:/home/lyt/fast/redis-6.2.3# cd deps/
root@lyt:/home/lyt/fast/redis-6.2.3/deps# ls
hdr_histogram  hiredis  jemalloc  linenoise  lua  Makefile  README.md  update
root@lyt:/home/lyt/fast/redis-6.2.3/deps# make
Explicit target required
root@lyt:/home/lyt/fast/redis-6.2.3/deps#
```

2021/5/21 21:09:09

@零声学院【Darren老师】老师redis,make deps有问题，这是啥原因

ren727716391 2021/5/21 21:09:22

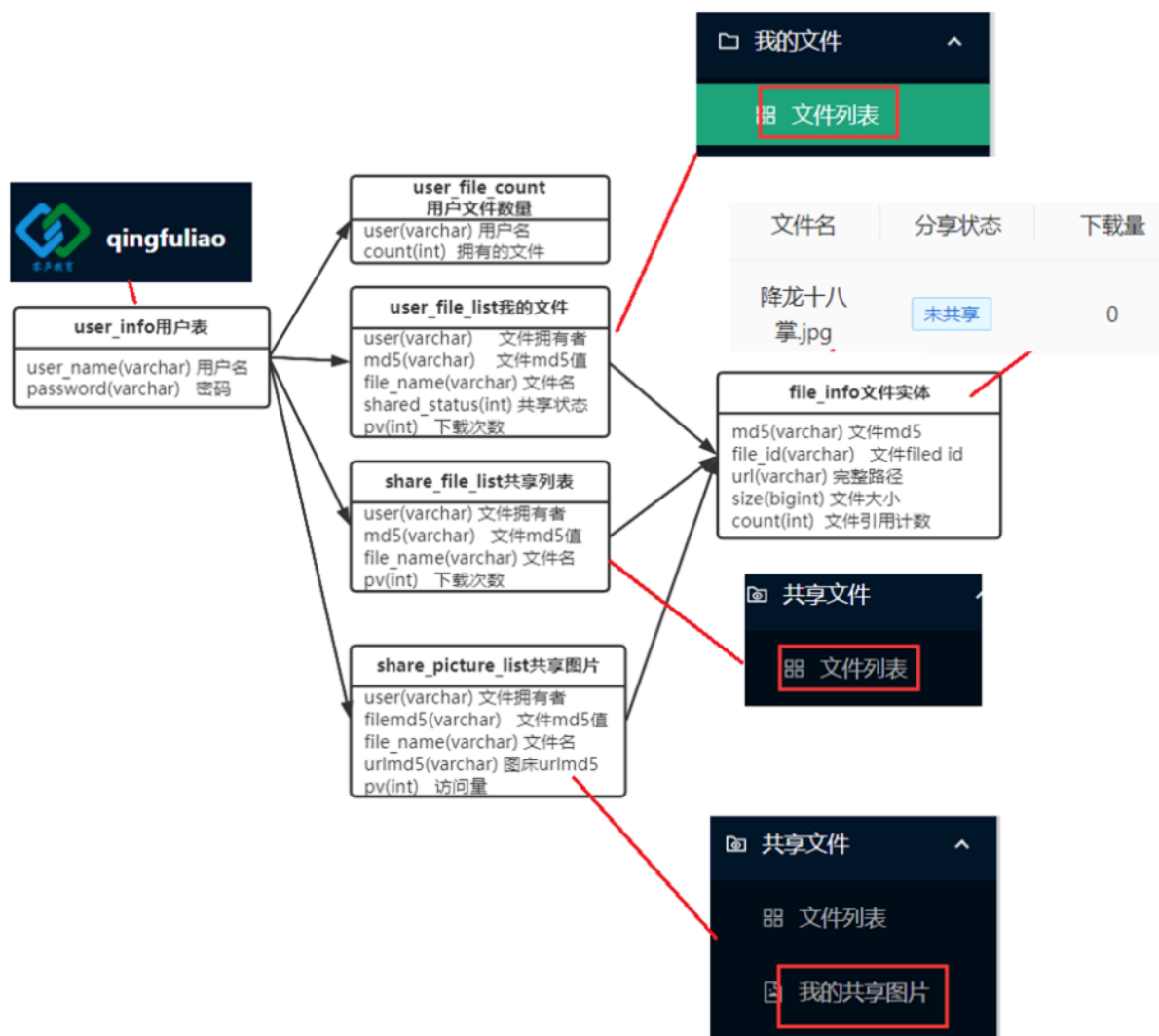
```
cd redis-6.2.3/deps/hiredis
make
make install
```

(8) 编译服务程序报错

```
root@izbp12g0t474mdbecfyuk4Z:~/0voice-cloud-disk# make
gcc -c src_cgi/login_cgi.c -o src_cgi/login_cgi.o -I./include -I/usr/include/fastdfs -I/usr/include/fastcommon -I/usr/local/include/hiredis/ -I/usr/include/mysql/ -Wall
In file included from src_cgi/login_cgi.c:16:0:
./include/redis_op.h:9:29: fatal error: hiredis/hiredis.h: No such file or directory
#include <hiredis/hiredis.h>
                           ^
compilation terminated.
Makefile:146: recipe for target 'src_cgi/login_cgi.o' failed
make: *** [src_cgi/login_cgi.o] Error 1
```

因为没有编译hiredis，回到(7) redis编译依赖问题

2 数据库设计



```
mysql> select user_name,password from user_info;
```

user_name	password
yezhaoxing	e10adc3949ba59abbe56e057f20f883e
qingfuliao	e10adc3949ba59abbe56e057f20f883e
king	e10adc3949ba59abbe56e057f20f883e
qingfu	e10adc3949ba59abbe56e057f20f883e
linux	e206a54e97690cce50cc872dd70ee896
yangyansong	fec23d52a76f52fde779cd77e6ae09fb

惊不惊喜

具体细节参考：《1-6 零声云盘数据库字典V1.1.pdf》

select user_name,password from **user_info**;

select user,count from **user_file_count**;

select user,md5,file_name,shared_status,pv from **user_file_list**;

select md5,file_id,url,size,count from **file_info**;

select user,md5,file_name,pv from **share_file_list**;

select user,filemd5,file_name,urlmd5,pv from **share_picture_list**;

select user,md5,file_name,shared_status,pv from user_file_list where user="qingfuliao";

3 redis作用

(1) 存储token: 登录名对应的token值, 并设置过期时间24小时;

key: 用户名

value: token

```
127.0.0.1:6379> get qingfuliao
665846549d655de01d6d6ecf41cc77d2
```

(2) 共享文件下载排行榜

zset结构

filed_id: md5(文件名)+文件名 (为什么不直接使用文件名?)

value: 下次次数

```
127.0.0.1:6379> ZREVRANGEBYSCORE FILE_PUBLIC_ZSET +inf -inf WITHSCORES
a1c06fdb08a1fff7712e6e19bffa47f降龙十八掌.jpg
2
c66b226fa63db759a6ff64fa42957b501.jpg
1
bd70982624f3bc9aaaff7d67e89e5c4520210415.png
0
```

比如

a1c06fdb08a1fff7712e6e19bffa47f (md5) 降龙十八掌 (文件名) .jpg

2 下载次数

filed_id: md5(文件名)+文件名 (为什么不直接使用文件名?)

1. 文件重名 (不能只使用文件名作为filed_id)
2. 不同的文件名 他们内容可能是一样的, 所以不能直接使用md5

(3) 排行榜filed_id映射文件名

hash结构

filed_id: md5(文件名)+文件名

value: 文件名 (思考: 为什么要做映射?)

```
127.0.0.1:6379> HGETALL FILE_NAME_HASH
c66b226fa63db759a6ff64fa42957b501.jpg
1.jpg
bd70982624f3bc9aaaff7d67e89e5c4520210415.png
20210415.png
a1c06fdb08a1fff7712e6e19bffa47f降龙十八掌.jpg
降龙十八掌.jpg
```

比如:

a1c06fdb08a1fff7712e6e19bffa47f降龙十八掌.jpg 对应排行榜里的元素

降龙十八掌.jpg 真正的文件名

即是通过 文件md5+文件名作为唯一key去区分。

- 相同的文件可以有不同的文件名
- 相同的文件名可以应对不同的文件。

4 接口设计

见《1-5 零声云盘接口文档V2.1.pdf》

HTTP测试: <https://getman.cn/>

Md5在线生成: <https://www.cmd5.com/>

Json在线校验: <https://www.bejson.com/json/format/>

5 重点逻辑

1-2 零声图床架构和功能分析v2.1.pdf

- 登录逻辑
- 上传逻辑
- 下载逻辑
- 分享逻辑

查看文件详细信息

```
root@iZbp1h2l856zgoegc8rvnhZ:~/tuchuang/0voice_tuchuang# fdfs_file_info /etc/fdfs/client.conf
group1/M00/00/00/ctepQmIZ52yAaD2pAHwRMGsipQw105.jpg
GET FROM SERVER: false
```

file type: normal

source storage id: 0

source ip address: 114.215.169.66

file create timestamp: 2022-02-26 16:40:12

file size: 8130864

file crc32: 1797432588 (0x6b22a50c)

storage_server_query_file_info

query_file_info_response

FastDFS的文件ID中可以反解出哪些字段? 文件ID中除了包含group name和存储路径外, 文件名中可以反解出如下几个字段:

- 1) 文件创建时间 (unix时间戳, 32位整数)
- 2) 文件大小
- 3) 上传到的源storage server IP地址 (32位整数)
- 4) 文件crc32校验码
- 5) 随机数 (这个字段用来避免文件重名)

tracker:

- 启动: /etc/init.d/fdfs_trackerd start
- 停止: /etc/init.d/fdfs_trackerd stop
- 重启: /etc/init.d/fdfs_trackerd restart

storage:

- 启动: /etc/init.d/fdfs_storaged start
- 停止: /etc/init.d/fdfs_storaged stop
- 重启: /etc/init.d/fdfs_storaged restart

上传: fdfs_upload_file /etc/fdfs/client.conf ./client.conf

下载: fdfs_download_file /etc/fdfs/client.conf

group1/M00/00/00/ctepQmIWJTCAcldiAAAHuj79dAY04.conf

删除文件: fdfs_delete_file /etc/fdfs/client.conf

group1/M00/00/00/ctepQmIWJTCAcldiAAAHuj79dAY04.conf

查看文件: fdfs_file_info /etc/fdfs/client.conf
group1/M00/00/00/ctepQmIWJTCAcldiAAAHuj79dAY04.conf