

xquant: 【终版】整体编译运行+服务器nginx配置

1. 参考 xuquant-etcenv目录下的readme.md
2. linux git 配置
3. 从github上下载:
4. 下载 uws-legacy,
5. 编译 老版本的 uWebSockets/ v0.14.8版
6. 安装 google-glog日志库
7. 安装googletest安装
8. 新版 uWebsockets+uSockets 集成
 - 8.1.1. 在uSockets目录下执行 make
9. .bashrc中添加LD_LIBRARY_PATH
10. 远程服务器 开启防火墙
 - 10.1.1.1. VNC登录
11. 远程websocket nginx配置
 - 11.1. 腾讯云的配置
 - 11.2. nginx配置
 - 11.2.1. websocket 代理配置
 - 11.2.2. 80端口的默认路径配置
 - 11.3. client中的代码:
 - 11.4. nginx.conf 完整配置
 - 11.5. default配置
12. 腾讯云连接不了github

1. 参考 xuquant-etcenv目录下的readme.md

- <http://192.168.1.26/>
- bb && ./broadcaste
- rr && ./tmain.x

2. linux git 配置

```
1 export PS1="\[\e[37;40m\][\[\e[32;40m\]\u\[\e[31;40m\] @ \h \[\e[32;40m\]\w\[\e[0m\]] $ "
2 TZ='Asia/Shanghai'; export TZ
3 export VERSION=v18.16.1
4 export DISTR0=linux-x64
5 git config --global http.proxy "192.168.1.88:23457"
6 # git config --global http.version HTTP/1.1
7 git config --global http.postBuffer 524288000
8 export HTTP_PROXY=http://192.168.1.88:23457
9 export HTTPS_PROXY=http://192.168.1.88:23457
10 export PATH=$PATH:/usr/local/go/bin
11 ~
12 ~
```

3. 从github上下载:

```
1 git clone https://github.com/asialugf/xquant.git
```

修改.git/config, 增加 gitee.com 的url:

保证在新的服务器上对xquant的修改可以上传到github和gitee

```
1 [core]
2     repositoryformatversion = 0
3     filemode = true
4     bare = false
5     logallrefupdates = true
6 [remote "origin"]
7     url = https://github.com/asialugf/xquant.git
8     url = https://gitee.com/asialugf/xquant.git
9     fetch = +refs/heads/*:refs/remotes/origin/*
10 [branch "master"]
11     remote = origin
12     merge = refs/heads/master
```

4. 下载 uws-legacy,

```
1 git clone --recursive https://github.com/uNetworking/uws-legacy.git
```

注意要recursive下载到 老版本的 uWebSockets/ v0.14.8版。

在/xquant/uquant/extern/中也有备份：uws-legacy.tar.20231203.gz

5. 编译 老版本的 uWebSockets/ v0.14.8版

```
1 cd uws-legacy/uWebSockets
2 make
3 sudo make install
```

```
1 root@vincent:/home/rabbit/uws-legacy/uWebSockets# make install
2 make install `(uname -s)`
3 make[1]: 进入目录"/home/rabbit/uws-legacy/uWebSockets"
4 if [ -d "/usr/lib64" ]; then mkdir -p /usr/lib64 && cp libuWS.so /usr/lib64/; else mkdir -p /usr/lib && cp libuWS.so /usr/lib/; fi
5 mkdir -p /usr/include/uWS
6 cp src/*.h /usr/include/uWS/
7 make[1]: 离开目录"/home/rabbit/uws-legacy/uWebSockets"
8 root@vincent:/home/rabbit/uws-legacy/uWebSockets#
```

6. 安装 google-glog日志库

此处为语雀内容卡片，点击链接查看：

https://www.yuque.com/asialine/fo2koz/nskqca5d7dn7eo2d?view=doc_embed&inner=iuzz3

```
1 git clone https://github.com/google/glog.git
2 cd glog
3 mkdir build
4 cd build
5 cmake ..
6 make
7 sudo make install
```

7. 安装googletest安装

此处为语雀内容卡片，点击链接查看：

https://www.yuque.com/asialine/fo2koz/nskqca5d7dn7eo2d?view=doc_embed&inner=iuzz3

```
1  git clone https://github.com/google/googletest
2  cd googletest
3  mkdir build
4  cd build
5  cmake ..
6  make
7  sudo make install
```

8. 新版 uWebsockets+uSockets 集成

 Build software better, together

将 uWebsockets+uSockets 放在 uquant/目录下

8.1.1. 在uSockets目录下执行 make

- 生成 uSockets.a ， 将其改名为libuSockets.a
- 将 uSockets/src/libusockets.h copy 到 /usr/include下

9. .bashrc中添加LD_LIBRARY_PATH

uWs.so + glog.so

```
1  export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/usr/lib64:/usr/local/lib
```

运行环境准备

~/tdx_data 下放置数据文件：

abbit@vincent:~/xquant/trader/run\$ mkdir tbl

```

1 rabbit@vincent:~/xquant/trader/run$ mkdir tbl
2 rabbit@vincent:~/xquant/trader/run$ mkdir log
3 rabbit@vincent:~/xquant/uquant/tests/mock/tbl$ cp trade.json ~/xquant/trader/run/tbl

```

10. 远程服务器 开启防火墙

```

1
2 [root @ vincent ~] # ufw status
3 状态: 不活动
4 [root @ vincent ~] #
5 [root @ vincent ~] #
6 [root @ vincent ~] #
7 [root @ vincent ~] # ufw allow 9001
8 防火墙规则已更新
9 规则已更新(v6)
10 [root @ vincent ~] #
11 [root @ vincent ~] # ufw status
12 状态: 不活动
13 [root @ vincent ~] #
14 [root @ vincent ~] # ufw enable
15 在系统启动时启用和激活防火墙
16 [root @ vincent ~] # ufw status
17 状态: 激活
18
19 至                动作                来自
20 -                --                --
21 9001              ALLOW              Anywhere
22 9001 (v6)         ALLOW              Anywhere (v6)
23
24 [root @ vincent ~] #
25 [root @ vincent ~] #

```

腾讯云 采用

10.1.1.1. VNC登录

11. 远程websocket nginx配置

11.1. 腾讯云的配置

腾讯云

云产品

小程序

6

集团账号

备案

工具

客服支持

费用

轻量应用服务器

服务器

数据库

云硬盘

域名

数据备份

对象存储

镜像

密钥

防火墙模板

内网互联

自动化助手

OrcaTerm

Ubuntu-OWZl

上海

(公)

124.221.96.31

124.221.96.31

登录

关机

重启

重置密码

续费

更多

概要

域名

云硬盘

备份点

防火墙

SSH密钥

快照

监控

对象存储

主机安全

执行命令

防火墙只对服务器的入流量进行控制，可以设置允许或禁止公网或内网对轻量应用服务器实例的访问，出流量默认允许所有请求。[查看如何配置防火墙规则](#)

添加规则

一键放通

删除

排序

<input type="checkbox"/>	应用类型	来源	协议	端口	策略	备注	操作
<input type="checkbox"/>	HTTP (80)	0.0.0.0/0	TCP	80	允许	Web服务HTTP (80), 如 Apache, Nginx	编辑 删除
<input type="checkbox"/>	Linux login (22)	0.0.0.0/0	TCP	22	允许	Linux SSH登录	编辑 删除
<input type="checkbox"/>	自定义	0.0.0.0/0	TCP	8300	允许		编辑 删除

共 3 条

20 / 页

1 / 1 页

防火墙模板

内网互联

自动化助手

OrcaTerm

创建模板

请输入模板ID名称进行搜索

ID名称	创建时间	操作
lhins-f5gifi9y test01	2023-12-03 22:48:58	设置实例防火墙 管理模板规则 删除

共 1 条

20 / 页

选择轻量应用服务器

上海 1

请输入实例ID或者实例名查询

☒ ID/实例名

状态

☒ lhins-f5gifi9y

Ubuntu-OWZl

运行中

已选择 (1)

操作确认

☒ 我已知晓实例原防火墙规则将被当前模板覆盖，且无法还原

确定

取消

6

```
1  ufw enable
2  ufw allow ssh
3  ufw allow 80
4  ufw allow 8300
5  ufw allow 9001
```

11.2. nginx配置

```
1  service nginx stop
2  service nginx start
```

 [NGINX as a Proxy for Websockets | Mike Polinowski](#)

此处为语雀内容卡片，点击链接查看：https://www.yuque.com/asialine/fo2koz/7eb0d1ff-0f20-4155-8454-faec83d9486f?view=doc_embed

```
1  apt install nginx
2  service nginx restart
3  cd /etc/nginx
4  vi nginx.conf
```

11.2.1. websocket 代理配置

`/etc/nginx/nginx.conf`

外网 8300 内网9001

```

1  map $http_upgrade $connection_upgrade {
2      default upgrade;
3      '' close;
4  }
5
6  upstream websocket {
7      server localhost:9001;
8  }
9
10 server {
11     listen 8300;
12     location / {
13         proxy_pass http://websocket;
14         proxy_http_version 1.1;
15         proxy_set_header Upgrade $http_upgrade;
16         proxy_set_header Connection $connection_upgrade;
17         proxy_set_header Host $host;
18     }
19 }

```

11.2.2. 80端口的默认路径配置

在nginx.conf文件中有两句配置：

```

1  include /etc/nginx/conf.d/*.conf;
2  include /etc/nginx/sites-enabled/*;

```

在 `/etc/nginx/sites-enabled`] # 目录下修改：

`lrwxrwxrwx 1 root root 34 Dec 3 20:14 default -> /etc/nginx/sites-available/default`

要注意 `/home/rabbit` 目录要有读写权限

```

1  server {
2      listen 80 default_server;
3      listen [::]:80 default_server;
4
5      # root /var/www/html;
6      root /home/rabbit/xquant/website/chart;
7

```

用 nc 查看 8300 端口对 外网 IP 不通，所以需要在腾讯云上开放此端口


```
1 [root @ vincent /etc/nginx] #
2 [root @ vincent /etc/nginx] # nc -zvw3 127.0.0.1 9001
3 Connection to 127.0.0.1 9001 port [tcp/*] succeeded!
4 [root @ vincent /etc/nginx] # nc -zvw3 127.0.0.1 8300
5 Connection to 127.0.0.1 8300 port [tcp/*] succeeded!
6 [root @ vincent /etc/nginx] #
7 [root @ vincent /etc/nginx] # nc -zvw3 127.0.0.1 8300
8 Connection to 127.0.0.1 8300 port [tcp/*] succeeded!
9 [root @ vincent /etc/nginx] #
10 [root @ vincent /etc/nginx] # nc -zvw3 124.221.96.31 8300
11 nc: connect to 124.221.96.31 port 8300 (tcp) timed out: Operation now in progress
12 [root @ vincent /etc/nginx] #
```

11.3. client 中的代码:

kd_2023_01_k3_color_ok.html

```
1 let socket = new WebSocket('ws://124.221.96.31:8300/');
```

11.4. nginx.conf 完整配置

```

1  rabbit@vincent:~$ cat /etc/nginx/nginx.conf
2  user www-data;
3  worker_processes auto;
4  pid /run/nginx.pid;
5  include /etc/nginx/modules-enabled/*.conf;
6
7  events {
8      worker_connections 768;
9      # multi_accept on;
10 }
11
12 http {
13
14     ##
15     # Basic Settings
16     ##
17
18     sendfile on;
19     tcp_nopush on;
20     types_hash_max_size 2048;
21     # server_tokens off;
22
23     # server_names_hash_bucket_size 64;
24     # server_name_in_redirect off;
25
26
27     map $http_upgrade $connection_upgrade {
28         default upgrade;
29         '' close;
30     }
31
32     upstream websocket {
33         server localhost:9001;
34     }
35
36     server {
37         listen 8300;
38         location / {
39             proxy_pass http://websocket;
40             proxy_http_version 1.1;
41             proxy_set_header Upgrade $http_upgrade;
42             proxy_set_header Connection $connection_upgrade;
43             proxy_set_header Host $host;
44         }
45     }
46

```

```

47
48     include /etc/nginx/mime.types;
49     default_type application/octet-stream;
50
51     ##
52     # SSL Settings
53     ##
54
55     ssl_protocols TLSv1 TLSv1.1 TLSv1.2 TLSv1.3; # Dropping SSLv3, re
f: POODLE
56     ssl_prefer_server_ciphers on;
57
58     ##
59     # Logging Settings
60     ##
61
62     access_log /var/log/nginx/access.log;
63     error_log /var/log/nginx/error.log;
64
65     ##
66     # Gzip Settings
67     ##
68
69     gzip on;
70
71     # gzip_vary on;
72     # gzip_proxied any;
73     # gzip_comp_level 6;
74     # gzip_buffers 16 8k;
75     # gzip_http_version 1.1;
76     # gzip_types text/plain text/css application/json application/jav
ascript text/xml application/xml application/xml+rss text/javascript;
77
78     ##
79     # Virtual Host Configs
80     ##
81
82     include /etc/nginx/conf.d/*.conf;
83     include /etc/nginx/sites-enabled/*;
84
85 }
86
87
88 #mail {
89 #     # See sample authentication script at:
90 #     # http://wiki.nginx.org/ImapAuthenticateWithApachePhpScript
91 #

```

```
92 # # auth_http localhost/auth.php;
93 # # pop3_capabilities "TOP" "USER";
94 # # imap_capabilities "IMAP4rev1" "UIDPLUS";
95 #
96 # server {
97 #     listen      localhost:110;
98 #     protocol    pop3;
99 #     proxy        on;
100 # }
101 #
102 # server {
103 #     listen      localhost:143;
104 #     protocol    imap;
105 #     proxy        on;
106 # }
107 #}
108 rabbit@vincent:~$
```

11.5. default配置

```

1  rabbit@vincent:~$ cd /etc/nginx/sites-available/
2  rabbit@vincent:/etc/nginx/sites-available$ ll
3  总计 12
4  drwxr-xr-x 2 root root 4096 Dec  4 12:35 ./
5  drwxr-xr-x 8 root root 4096 Dec  4 12:18 ../
6  -rw-r--r-- 1 root root 2523 Dec  4 12:35 default
7  rabbit@vincent:/etc/nginx/sites-available$
8  rabbit@vincent:/etc/nginx/sites-available$
9  rabbit@vincent:/etc/nginx/sites-available$ cat *
10 ##
11 # You should look at the following URL's in order to grasp a solid understanding
12 # of Nginx configuration files in order to fully unleash the power of Nginx.
13 # https://www.nginx.com/resources/wiki/start/
14 # https://www.nginx.com/resources/wiki/start/topics/tutorials/config_pitfalls/
15 # https://wiki.debian.org/Nginx/DirectoryStructure
16 #
17 # In most cases, administrators will remove this file from sites-enabled/ and
18 # leave it as reference inside of sites-available where it will continue to be
19 # updated by the nginx packaging team.
20 #
21 # This file will automatically load configuration files provided by other
22 # applications, such as Drupal or Wordpress. These applications will be made
23 # available underneath a path with that package name, such as /drupal8.
24 #
25 # Please see /usr/share/doc/nginx-doc/examples/ for more detailed examples.
26 ##
27
28 # Default server configuration
29 #
30 server {
31     listen 80 default_server;
32     listen [::]:80 default_server;
33
34     # SSL configuration
35     #
36     # listen 443 ssl default_server;
37     # listen [::]:443 ssl default_server;
38     #
39     # Note: You should disable gzip for SSL traffic.

```

```

40     # See: https://bugs.debian.org/773332
41     #
42     # Read up on ssl_ciphers to ensure a secure configuration.
43     # See: https://bugs.debian.org/765782
44     #
45     # Self signed certs generated by the ssl-cert package
46     # Don't use them in a production server!
47     #
48     # include snippets/snakeoil.conf;
49
50     # root /var/www/html;
51     # root /home/rabbit/ht;
52     # root /home/rabbit/xquant/website/chart;
53     root /home/rabbit/xquant/website/chart;
54
55     # Add index.php to the list if you are using PHP
56     index index.html index.htm index.nginx-debian.html;
57
58     server_name _;
59
60     location / {
61         # First attempt to serve request as file, then
62         # as directory, then fall back to displaying a 404.
63         try_files $uri $uri/ =404;
64     }
65
66     # pass PHP scripts to FastCGI server
67     #
68     #location ~ /\.php$ {
69     #     include snippets/fastcgi-php.conf;
70     #
71     #     # With php-fpm (or other unix sockets):
72     #     fastcgi_pass unix:/run/php/php7.4-fpm.sock;
73     #     # With php-cgi (or other tcp sockets):
74     #     fastcgi_pass 127.0.0.1:9000;
75     #}
76
77     # deny access to .htaccess files, if Apache's document root
78     # concurs with nginx's one
79     #
80     #location ~ /\.ht {
81     #     deny all;
82     #}
83 }
84
85
86 # Virtual Host configuration for example.com

```

```

87 #
88 # You can move that to a different file under sites-available/ and symlin
   k that
89 # to sites-enabled/ to enable it.
90 #
91 #server {
92 #     listen 80;
93 #     listen [::]:80;
94 #
95 #     server_name example.com;
96 #
97 #     root /var/www/example.com;
98 #     index index.html;
99 #
100 #     location / {
101 #         try_files $uri $uri/ =404;
102 #     }
103 #}
104 rabbit@vincent: /etc/nginx/sites-available

```

12. 腾讯云连接不了github

<https://www.itbulu.com/git-github-outtime.html>

在 /etc/hosts中加下以下:

```

1  192.30.255.112 github.com
2  192.30.255.112 raw.githubusercontent.com

```