

Linux ?????

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myzsh ?????

Check the env

```
cat /etc/shells
```

```
Reading state information... Done
91 packages can be upgraded. Run 'apt list --upgradable' to see them.
danny@DESKTOP-JOSRD1J:~$ cat /etc/shells
# /etc/shells: valid login shells
/bin/sh
/bin/bash
/bin/rbash
/bin/dash
/usr/bin/tmux
/usr/bin/screen
danny@DESKTOP-JOSRD1J:~$ S
```

Install zsh

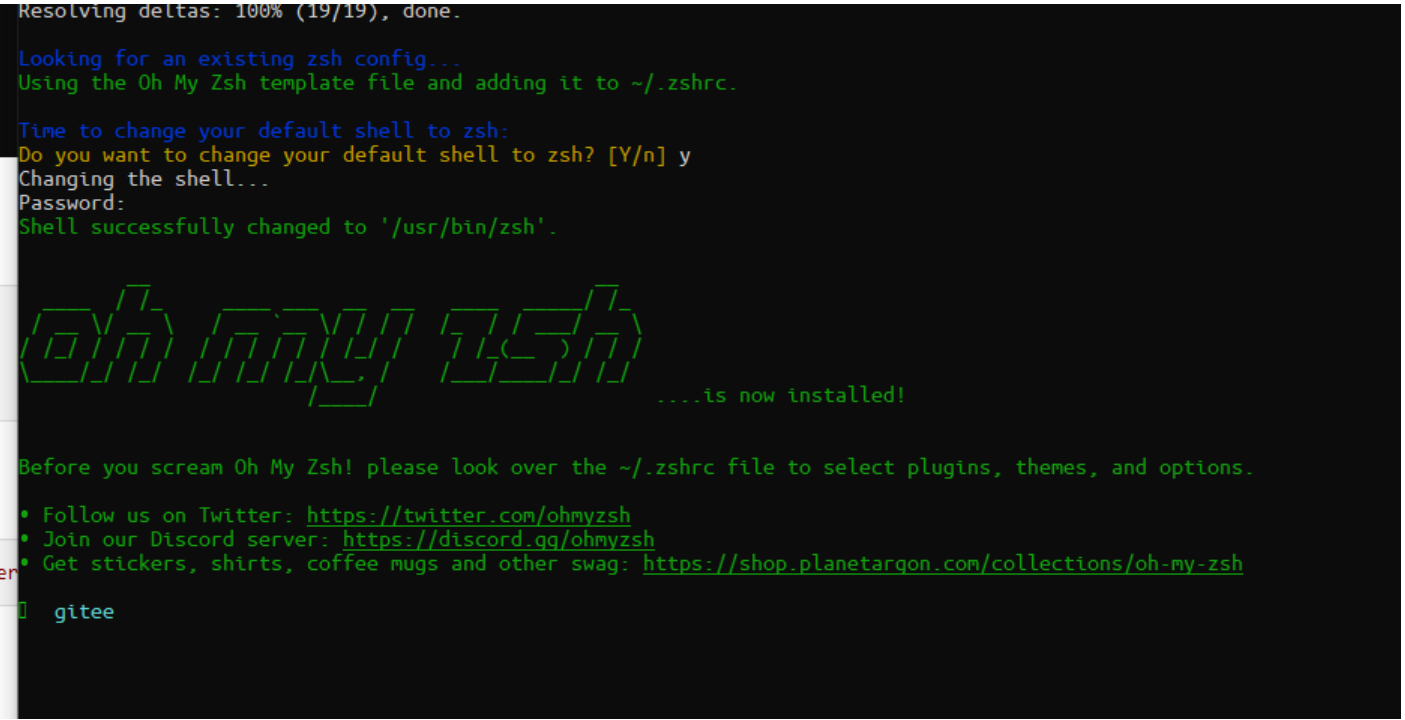
```
sudo apt-get install zsh
## replace zsh as default shell manager
sudo chsh -s $(which zsh) $USER
```

```
/usr/bin/screen
danny@DESKTOP-JOSRD1J:~$ sudo apt-get install zsh
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  zsh-common
Suggested packages:
  zsh-doc
The following NEW packages will be installed:
  zsh zsh-common
0 upgraded, 2 newly installed, 0 to remove and 91 not upgraded.
Need to get 4066 kB of archives.
After this operation, 15.2 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://mirrors.aliyun.com/ubuntu bionic-security/main amd64 zsh-common all 5.4.2-3ubuntu3.1 [3376 kB]
Get:2 http://mirrors.aliyun.com/ubuntu bionic-security/main amd64 zsh amd64 5.4.2-3ubuntu3.1 [690 kB]
Fetched 4066 kB in 2s (2010 kB/s)
Selecting previously unselected package zsh-common.
(Reading database ... 29293 files and directories currently installed.)
Preparing to unpack .../zsh-common_5.4.2-3ubuntu3.1_all.deb ...
Unpacking zsh-common (5.4.2-3ubuntu3.1) ...
Selecting previously unselected package zsh.
Preparing to unpack .../zsh_5.4.2-3ubuntu3.1_amd64.deb ...
Unpacking zsh (5.4.2-3ubuntu3.1) ...
Setting up zsh-common (5.4.2-3ubuntu3.1) ...
Setting up zsh (5.4.2-3ubuntu3.1) ...
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...
danny@DESKTOP-JOSRD1J:~$
```

Install oh-my-zsh

```
sudo apt-get install wget  
sudo apt-get install git
```

```
wget https://github.com/robbyrussell/oh-my-zsh/raw/master/tools/install.sh -O - | sh
```



```
Resolving deltas: 100% (19/19), done.  
Looking for an existing zsh config...  
Using the Oh My Zsh template file and adding it to ~/.zshrc.  
Time to change your default shell to zsh:  
Do you want to change your default shell to zsh? [Y/n] y  
Changing the shell...  
Password:  
Shell successfully changed to '/usr/bin/zsh'.  
  
oh my zsh .....is now installed!  
  
Before you scream Oh My Zsh! please look over the ~/.zshrc file to select plugins, themes, and options.  
• Follow us on Twitter: https://twitter.com/ohmyzsh  
• Join our Discord server: https://discord.gg/ohmyzsh  
• Get stickers, shirts, coffee mugs and other swag: https://shop.planetargon.com/collections/oh-my-zsh  
gitee
```

Install plugin

```
git clone https://github.com/zsh-users/zsh-autosuggestions $ZSH_CUSTOM/plugins/zsh-autosuggestions
```

```
git clone https://github.com/zsh-users/zsh-syntax-highlighting.git $ZSH_CUSTOM/plugins/zsh-syntax-highlighting
```

Edit myzsh theme

```
vim ~/.zshrc  
##add plugin  
plugins=(git zsh-autosuggestions zsh-syntax-highlighting)  
### select a theme  
ZSH_THEME="ys"
```

```
source ~/.zshrc
```

Install autojump

```
sudo apt-get install autojump
```

```
# add autojump.zsh in .zshrc
. /usr/share/autojump/autojump.zsh
```

oh-my-zsh ? `git` ?????????????????? `cd` ? `ls`
???

“??:

```
||||| git
|||||
zsh ||||| git |||||
```

???

1. ||| oh-my-zsh |||||
git config --add oh-my-zsh.hide-dirty 1
2. ||| oh-my-zsh ||||| git |||
git config --add oh-my-zsh.hide-status 1
3. ||||| oh-my-zsh |||||
git config --global oh-my-zsh.hide-dirty 1
4. ||||| oh-my-zsh ||||| git |||
git config --global oh-my-zsh.hide-status 1

```
# danny @ 1b159a1c7726 in ~ [18:02:33]
$ sudo apt-get install autojump
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  autojump
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 32.6 kB of archives.
After this operation, 157 kB of additional disk space will be used.
Get:1 http://ports.ubuntu.com/ubuntu-ports noble/universe arm64 autojump all 22.5.1-1.1
Fetched 32.6 kB in 2s (16.0 kB/s)
debconf: delaying package configuration, since apt-utils is not installed
Selecting previously unselected package autojump.
(Reading database ... 18674 files and directories currently installed.)
Preparing to unpack .../autojump_22.5.1-1.1_all.deb ...
Unpacking autojump (22.5.1-1.1) ...
Setting up autojump (22.5.1-1.1) ...
```

```
# Example format: plugins=(rails git textmate ruby lighthouse)
# Add wisely, as too many plugins slow down shell startup.
plugins=(git zsh-autosuggestions zsh-syntax-highlighting)

source $ZSH/oh-my-zsh.sh

# User configuration
. /usr/local/share/autojump.zsh

# export MANPATH="/usr/local/man:$MANPATH"

# You may need to manually set your language environment
# export LANG=en_US.UTF-8

# Preferred editor for local and remote sessions
# if [[ -n $SSH_CONNECTION ]]; then
#   export EDITOR='vim'
```

```
authorized_keys  known_hosts
```

2 ??config??

☐ ☐ .ssh☐

```
cd ~/.ssh/  
vim config
```

```

config~/.ssh/authorized_keysid_ssh.pub

```

```
Host workhost0 # 配置主机信息
    HostName 192.168.63.8 # 主机ip
    User zhangsan # 用户名
    Port 22
    IdentityFile ~/.ssh/id_ssh # ssh私钥文件

Host workhost1
    HostName 192.168.63.9
    User zhangsan
    Port 22
    IdentityFile ~/.ssh/id_ssh
```

3 ??

--	--	--	--	--	--	--	--

```
ssh workhost0
```

[illegible]

Nginx ?????

??nginx

```
wget http://soft.vpser.net/lnmp/lnmp1.6.tar.gz -c0 lnmp1.6.tar.gz
tar xzf lnmp1.6.tar.gz
cd lnmp1.6
./install.sh nginx
```

????

```
lnmp vhost add
```

??HTTP

```
server {
    listen      80;
    server_name www.netflix.com;

    location / {
        proxy_pass http://localhost:8080;
        proxy_set_header Host $host;
        proxy_set_header X-Real-IP $remote_addr;
        proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
        proxy_set_header REMOTE-HOST $remote_addr;
    }
}
```

??HTTPS

```
server {
    listen 443 ssl;
    server_name netflt.com;
    ssl_certificate /home/ubuntu/lisence/netflt.com.crt;
    ssl_certificate_key /home/ubuntu/lisence/netflt.com.key;
```

```
ssl_session_cache builtin:1000 shared:SSL:10m;
ssl_protocols TLSv1 TLSv1.1 TLSv1.2;
ssl_ciphers HIGH:!aNULL:!eNULL:!EXPORT:!CAMELLIA:!DES:!MD5:!PSK:!RC4;
ssl_prefer_server_ciphers on;
```

```
location /
```

```
{
```

```
    proxy_pass http://localhost:8181;
```

```
    proxy_set_header Host $host;
```

```
    proxy_set_header X-Real-IP $remote_addr;
```

```
    proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
```

```
    proxy_set_header REMOTE-HOST $remote_addr;
```

```
}
```

```
}
```

?? LazyVim ? nvim ??? c++ IDE

nvim, vim . (nvim)

nvim C++ nvim, nvim vscode IDE, nvim UI nvim .
nvim nvim, nvim .
nvim nvim, .
nvim nvim, nvim .
nvim, nvim .
nvim, nvim .
nvim nvim c++ nvim, nvim, nvim .

????? nvim

nvim : <https://github.com/neovim/neovim/blob/master/INSTALL.md>

macos

```
brew install neovim
```

linux

```
sudo apt-get install neovim
```

?? LazyVim ??????

nvim, nvim, nvim; nvim;

??????(??)

```
mv ~/.config/nvim{,.bak}
```

??????(??)

```
mv ~/.local/share/nvim{,.bak}
mv ~/.local/state/nvim{,.bak}
mv ~/.cache/nvim{,.bak}
```

?????? starter, ??????????, ??????? lazy ??????????

```
git clone https://github.com/LazyVim/starter ~/.config/nvim
```

?? .git ??,?????????? git repo

```
rm -rf ~/.config/nvim/.git
nvim
```

								:
								:



????????

```
lazyvim {} ,{} config {} ,{} ;
{} ,{} . Plugins {} ,{} ,
lazyvim {} ;
```

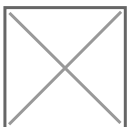


?????

```
example.lua , default.lua ;  
tokyonightly ; github_dark ;
```

```
-- Plugins/default.lua

return {
  { "projekt0n/github-nvim-theme" },
  {
    "LazyVim/LazyVim",
    opts = {
      colorscheme = "github_dark",
    },
  },
}
```



□ □ □ □

?? tab ???????,

```
-- config/options.lua
-- utf8
vim.g.encoding = "UTF-8"

-- 4 spaces Tab
vim.opt.tabstop = 4
vim.opt.softtabstop = 4

-- >> << 4 spaces
vim.opt.shiftwidth = 4

-- expandtab
vim.opt.expandtab = true

-- listchars
vim.opt.listchars = "space:·"

-- autoformat
vim.g.autoformat = false
```



neo-tree ??

vim, neo-tree, ;

```
return {
  "nvim-neo-tree/neo-tree.nvim",
  opts = {
    filesystem = {
      filtered_items = {
        visible = true,
        show_hidden_count = true,
        hide_dotfiles = false,
        hide_gitignored = true,
        hide_by_name = {
```

```
        --'.git', '.DS_Store',  -- 'thumbs.db',  
    },  
    never_show = {'.git'},  
},  
}  
}  
}
```

? docker ??? ubuntu ?????

?? ubuntu image

```
docker pull ubuntu
```

```
# danny @ Dannys-Mac-mini in ~/workspace/data/docker [17:29:23]
$ docker pull ubuntu
Using default tag: latest
latest: Pulling from library/ubuntu
Digest: sha256:80dd3c3b9c6cecb9f1667e9290b3bc61b78c2678c02cbdae5f0fea92cc6734ab
Status: Image is up to date for ubuntu:latest
docker.io/library/ubuntu:latest
```

What's next:

View a summary of image vulnerabilities and recommendations → [docker scout quickview ubuntu](#)

?? image ?????

```
docker images
```

```
# danny @ Dannys-Mac-mini in ~ [15:04:44]
$ docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
mariadb	latest	7656006f9d74	5 weeks ago	435MB
ubuntu	latest	20377134ad88	6 weeks ago	101MB
lscr.io/linuxserver/chromium	latest	891c0f6f451a	3 months ago	2.69GB
lscr.io/linuxserver/mariadb	latest	2cc172e0ecaa	4 months ago	371MB
lscr.io/linuxserver/bookstack	latest	6873b7829519	4 months ago	393MB

```
# danny @ Dannys-Mac-mini in ~ [15:06:50]
$
```

????

```
docker run --name ubuntu-dev -t -i -d -p 3316:22 ubuntu:latest
```

```
# danny @ Dannys-Mac-mini in ~/workspace/data/docker [17:32:16]
$ docker run --name ubuntu-dev -t -i -p 3316:22 ubuntu:latest
root@1b159a1c7726:/#
```

□□□□ :

- -name
- -i: STDIN -t
- -t: tty -i
- -d: ID
- -p: IP
hostPort:containerPort ip:hostPort:containerPort ip::containerPort
- ubuntu / ID

?? root password

```
passwd root
```

```
root@1b159a1c7726:/# service ssh start
* Starting OpenBSD Secure Shell server sshd
root@1b159a1c7726:/# passwd root
New password:
Retype new password:
passwd: password updated successfully
root@1b159a1c7726:/#
```

?? sudo ??

```
#  vim
apt-get update
apt-get install vim

#  sudo
apt-get install sudo

# 
adduser danny

#  sudo 
usermod -aG sudo danny
```

```
root@1b159a1c7726:/# adduser danny
info: Adding user `danny' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group `danny' (1001) ...
info: Adding new user `danny' (1001) with group `danny (1001)' ...
info: Creating home directory `/home/danny' ...
info: Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for danny
Enter the new value, or press ENTER for the default
    Full Name []:
    Room Number []:
    Work Phone []:
    Home Phone []:
    Other []:
Is the information correct? [Y/n]
info: Adding new user `danny' to supplemental / extra groups `users' ...
info: Adding user `danny' to group `users' ...
root@1b159a1c7726:/#
```

?? ssh ??

```
apt-get install openssh-client -y
apt-get install openssh-server -y
```

????, ??? ssh ??

```
vim /etc/ssh/sshd_config
service ssh start
```

```
# possible, but leave them commented. Uncommented options override the  
# default value.
```

```
Include /etc/ssh/sshd_config.d/*.conf
```

```
Port 22
```

```
#AddressFamily any
```

```
ListenAddress 0.0.0.0
```

```
#ListenAddress ::containerPort, ip:hostPort:containerPort, ip::containerPort,
```

```
#HostKey /etc/ssh/ssh_host_rsa_key
```

```
#HostKey /etc/ssh/ssh_host_ecdsa_key
```

```
#HostKey /etc/ssh/ssh_host_ed25519_key
```

```
# Ciphers and keying
```

```
#RekeyLimit default none
```

```
Include /etc/ssh/sshd_config.d/*.conf
```

```
Port 22
```

```
#AddressFamily any
```

```
ListenAddress 0.0.0.0
```

```
#ListenAddress ::
```

```
#HostKey /etc/ssh/ssh_host_rsa_key
```

```
#HostKey /etc/ssh/ssh_host_ecdsa_key
```

```
#HostKey /etc/ssh/ssh_host_ed25519_key
```

```
# Ciphers and keying
```

```
#RekeyLimit default none
```

```
# Logging
```

```
#SyslogFacility AUTH
```

```
#LogLevel INFO
```

```
# Authentication:
```

```
#LoginGraceTime 2m
```

```
#PermitRootLogin prohibit-password
```

```
PermitRootLogin yes
```

```
#StrictModes yes
```

```
#MaxAuthTries 6
```

```
#MaxSessions 10
```

安装 ssh 服务

```
# 更新源并安装 vim
```

```
apt-get update
```

```
apt-get install vim
```

```
apt-get install openssh-client -y
```

```
apt-get install openssh-server -y
```

?? zsh,

📖 : <http://www.netflt.com/books/linux/page/myzsh-1xF>

neovim ?????

?? cmd ??, (???????????)

```
sudo apt-get install neovim
```

??????

```
## install gcc build env
sudo apt-get install build-essential
sudo apt-get install cmake

### could not find luajit
sudo apt-get install luajit

## Could NOT find Gettext
sudo apt-get install gettext libgettextpo-dev

# get source
git clone https://github.com/neovim/neovim.git

cd neovim

#switch stable branch
git checkout stable

make CMAKE_BUILD_TYPE=RelWithDebInfo

sudo make install
```


Home (H) Install (I) Update (U) Sync (S) Clean (X) Check (C) Log (L) Restore (R) Profile (P) Debug (D)
Help (?)

Total: 46 plugins

Installed (31)

- blink.cmp 5.44ms blink.cmp nvim-lspconfig
 - o bufferline.nvim [b]b [B]B <leader>bp <leader>bP <leader>br <leader>bl <S-h> <S-l> VeryLazy
 - o cmake-tools.nvim VeryLazy
 - o conform.nvim ConformInfo <leader>cF (v) <leader>cF
 - o diffview.nvim VeryLazy
- friendly-snippets 0.12ms blink.cmp
- o fzf-lua FzfLua <c-j> (t) <c-k> (t) <leader>, <leader>/ <leader>: <leader>fb <leader>fc <leader>ff <leader>fF <leader>fg <leader>fr <leader>fR <leader>gc <leader>gs <leader>s" <leader>sa <leader>sb <leader>sc <leader>sc <leader>sd <leader>sd <leader>sg <leader>sg <leader>sh <leader>sh <leader>sj <leader>sk <leader>sl <leader>sl <leader>sm <leader>sm <leader>sr <leader>sr <leader>sq <leader>sq <leader>sw <leader>sw <leader>sw (v) <leader>sw (v) <leader>uC <leader>ss <leader>ss <leader>S <leader><space>
- o gitsigns.nvim VeryLazy LazyFile
- o grub-far.nvim GrugFar <leader>sr (v) <leader>sr
- o lazydev.nvim LazyDev lua
- LazyVim 2.11ms start
- o lua-line.nvim VeryLazy
- o mini.pairs VeryLazy
- neo-tree.nvim 15.49ms neo-tree LazyVim
- nightfox.nvim 0.31ms colorscheme terafox
- o noise.nvim <c-f> (i) <c-f> (s) <c-b> (i) <c-b> (s) <c-f> <leader>sn <c-b> <S-Enter> (c) <leader>snl <leader>snh <leader>sna <leader>snd <leader>snt VeryLazy
- nui.nvim 0.05ms nui.line neo-tree.nvim
- o nvim-dap VeryLazy nvim-dap-ui
- o nvim-dap-ui VeryLazy
- nvim-lspconfig 13.72ms lspconfig nvim-ufo
- o nvim-nio nvim-dap-ui

blink.cmp]: Downloading pre-built binary

usr/local/share/nvim/runtime/lua/vim/_system.lua:245: EROENT: no such file or directory

ress ENTER or type command to continue

?????? gdb

```
nvim-dap  gdb  gdb-14.2, (dap , set
breakpints not stopped)
```

```
wget https://ftp.gnu.org/gnu/gdb/gdb-14.2.tar.gz
tar xf gdb-14.2.tar.gz
cd gdb-14.2

mkdir build
cd build
../configure --enable-targets=all --with-expat --with-python=/usr/bin/python3

## error: Building GDB requires GMP 4.2+, and MPFR 3.1.0+.
sudo apt-get install libmpc-dev

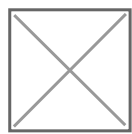
## makeinfo: not found
sudo apt-get install texinfo

##,
sudo apt-get install flex bison libreadline-dev

make
sudo make install
```

NVM ????? Node.js

nvm?Node Version Manager???????????????????????????????? Node.js ???



????? nvm?

-  Node.js
-  Node.js 
-  Node.js 

?? nvm

❑ macOS/Linux ❑❑❑ nvm❑

```
# curl
curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.39.3/install.sh | bash

# wget
wget -qO- https://raw.githubusercontent.com/nvm-sh/nvm/v0.39.3/install.sh | bash

# shell
source ~/.bashrc

# 
source ~/.zshrc
```

Windows nvm-windows

1.  nvm-windows <https://github.com/coreybutler/nvm-windows/releases>
2.  nvm-setup.zip
3.        

nvm ☐ ☐ ☐ ☐ ☐

```
# 安装 nvm
nvm --version

# 安装 Node.js
nvm list-remote

# Windows 安装
nvm list available
```

```
# LTS 安装
nvm install --lts

# 安装指定版本
nvm install 18.17.0
nvm install 16.20.1

# 列出所有安装版本
nvm list
# 查看当前版本
nvm ls

# 切换版本
nvm use 18.17.0

# 设置默认版本
nvm alias default 18.17.0

# 查看当前版本
nvm current

# 卸载指定版本
nvm uninstall 16.20.1
```

创建项目

```
# 创建项目 A 使用 Node.js 18
cd project-a
nvm use 18.17.0
node --version # v18.17.0

# 创建项目 B 使用 Node.js 16
cd ../project-b
nvm use 16.20.1
node --version # v16.20.1

# 创建 .nvmrc 文件
echo "18.17.0" > .nvmrc
nvm use # 使用 .nvmrc 指定的版本
```

????????

创建文件 **Node.js** 文件

创建文件 `hello.js` 文件

运行

```
// hello.js
console.log('Hello, Node.js!');
console.log('Node.js 版本:', process.version);
console.log('当前目录:', process.cwd());
console.log('操作系统:', process.platform);
```

运行结果

```
Hello, Node.js!
Node.js 版本: v18.17.0
当前目录: /Users/username/projects
操作系统: darwin
```

检查安装

```
# 检查 npm 安装情况
npm config get prefix

# 检查 npm 配置
npm config list

# 检查 Node.js 安装位置
which node

# Windows 用户
where node
```

?? SSH Tunnel ??????????????

OpenCode AI OpenCode CLI OpenCode

Streaming ssh -D

SOCKS5 http://

Cannot connect to API: The socket connection was closed unexpectedly

UnsupportedProxyProtocol fetching "https://moonshot.cn"

Linux Systemd SSH HTTP-to-SOCKS

?? ??????????????

1. ??? SSH ????????

OpenCode AI HTTP Chunked Stream DeepSeek-

R1 Tool Call SSH

RST Socket

2. ?????? UnsupportedProxyProtocol?

OpenCode fetch()

http://127.0.0.1:8080 127.0.0.1:8080

3. ???????

OpenCode CLI

| (127.0.0.1:8080)

▼

[8080] — (http-proxy-to-socks)

▼

[1080] — (SSH -D)

▼

? ??????????????????

????

????????
????

SSH ?????

ssh user@remote_server_ip

???????? SSH ?????

????

SSH ?????????????????

Systemd ?????

????

```
sudo vim /etc/systemd/system/ssh-proxy.service
```

????????

your_username ?????

```
[Unit]
Description=SSH SOCKS5 Proxy Service
After=network.target

[Service]
Type=simple
# ????? Linux
User=your_username
# -N: ?????; -D: ?? SOCKS5 ??; ServerAliveInterval: 15????
ExecStart=/usr/bin/ssh -N -D 1080 -o ServerAliveInterval=15 -o StrictHostKeyChecking=no -i
/home/your_username/.ssh/id_rsa user@remote_server_ip
# ?????5
Restart=always
RestartSec=5

[Install]
WantedBy=multi-user.target
```

???????? HTTP ??????

HTTP ☐ ☐ ☐

npx SSH ☐ ☐ ☐

```
# systemctl daemon-reload

# systemctl enable --now http-to-socks

# systemctl status http-to-socks
```

? ? ? ? ? ? ? ? ? ? ? ? ? ?

OpenCode CLI ☐

[illegible]

```
vim ~/.bashrc
```

[illegible]

```
# 禁用 UnsupportedProxyProtocol 警告
export HTTPS_PROXY=127.0.0.1:8080
export HTTP_PROXY=127.0.0.1:8080

# 禁用 TUI 警告
export NO_PROXY=localhost,127.0.0.1

# 设置 API 超时时间为 10 秒
export API_TIMEOUT_MS=600000
```

[illegible]

```
source ~/.bashrc
```

A diagram illustrating a memory segment. It consists of a horizontal row of 16 small squares representing bytes. The first square contains the value 0x00, and the last square contains 0xF. Above the squares, the address range 0x00000000 - 0x0000000F is indicated. A label 'opcode' points to the first eight squares.

opcode

Socket ☐☐☐☐

? ? ? ? ? ? ? ? ? ? ? ? ? ?

[illegible]

```
curl -I --proxy 127.0.0.1:8080 https://moonshot.cn
```

API ##### HTTP ##### 401 405 ##### Connection Refused
#####

SSH

```
sudo journalctl -u ssh-proxy -f
```

#####

```
sudo systemctl stop http-to-socks
```


CLI ##### 127.0.0.1:8080

Mac M???? (ARM64) ??

Docker-Compose

????????????????

???????? Apple Silicon M1/M2/M3/M4 16G 512G Mac
 Docker

?? ?? ????????????

Mac ARM Bridge “

+ Host + Rosetta 2 ”

• Host () “ 5 ”

Node.js Docker Mac Redis

• (: cached) macOS Linux

VS Code

• Rosetta 2 ARM64

QEMU

• 16G Mac mini 6G 12G

macOS

? ?? ????????????

Mac Docker Desktop

1. Rosetta Docker Desktop -> Settings () -> General -> “Use Rosetta for x86/amd64 emulation on Apple Silicon”

2. Host Mac Homebrew
Nginx(80) MySQL(3306) Redis(6379) ()
brew services stop mysql)

? ?? ????????

Mac (Terminal)

```
# 1. 
mkdir -p ~/bt-server/wwwroot ~/bt-server/backup

# 2. 
cd ~/bt-server

# 3. 
touch docker-compose.yml
```

? ?? ??????? (docker-compose.yml)

~/bt-server/docker-compose.yml

```
version: '3.8'

services:
  baota:
    image: ubuntu:22.04
    container_name: bt-mac-mini
    restart: always
    privileged: true
    network_mode: host

# 16G Mac 
deploy:
  resources:
    limits:
      cpus: '6.0'      # 6 CPU
      memory: 12g     # 12G
    reservations:
      memory: 6g      # 6G

volumes:
```

```
#  ⚡ :cached  10 秒
- ~/bt-server/wwwroot:/www/wwwroot:cached
- ~/bt-server/backup:/www/backup
```

environment:

```
- TZ=Asia/Shanghai  #  时区
```

```
#  Linux  容器
```

command: >

```
/bin/bash -c "
apt-get update &&
apt-get install -y wget curl sudo ufw lsb-release init &&
tail -f /dev/null
"
```

? ?? ?????????? LTS ????

1. ??????????

~/bt-server 目录

```
docker compose up -d
```

() Ubuntu 22.04 ARM64 1)

2. ?????????? LTS ??

Running LTS

```
docker exec -it bt-mac-mini /bin/bash -c "$(curl -sS0 https://bt.cn && wget -O install_lts.sh
https://bt.cn && bash install_lts.sh ed8484bec)"
```

y/n y

3. ??????????

```
docker exec -it bt-mac-mini bt default
```

“ ” http://localhost:32451/b8a2c1d0
Mac

“ARM”

LNMP Apple Silicon

1.

- Nginx 1.24 1.26 -> “(RPM)”
- MySQL 8.0 -> “(RPM)”
 - MySQL 8.0 ARM64 5.7
- PHP 8.1 / 8.2 / 8.3 -> “(RPM)”
 - PHP M JIT ARM64

??

“Compiled” Mac
Linux OpenSSL Swoole 100%

??

12G

1. MySQL 8.0

- -> MySQL 8.0 -> ->
- - “4-8GB”
 - innodb_buffer_pool_size InnoDB 4096MB (4G)

