```
HGH @@@@@@@@@@@@@@@@@@@@@@@@
1081LocalSocks       socks5 proxy @1081
Privoxy 1082         http proxy   @1082
HGH @@@@@@@@@@@@@@@@@@@@@@@@
microsocks -p 1080   dedicated socks5 proxy
Reverse-SSH-Tunnel 1080
     @@@@@@ Client : ssh -L
SYD @@@@@@@@@@@@@@@@@@@@@@@@
```

```
+++++++++Linux Client as Gateway
1. Insstall a proxy server
2. Create a SSH Reverse Tunnel:
     ssh -v -N -R  reverse-port:localhost:1080 user@sshserver
++++++++++++++++++++++++++
Install a dedicated Proxy Server on Linux Client
sudo apt update && sudo apt install -y microsocks
microsocks -p 1080               # make it running,listening on port 1080
+++
Test Socks5: curl --proxy socks5h://localhost:1080 -I https://www.example.com
++++++++++++++++++++++++++
Run at boot
sudo systemctl daemon-reload
sudo systemctl enable microsocks
sudo systemctl start microsocks
```

```
##################################
/etc/systemd/system/microsocks.service
[Unit]
Description=Lightweight SOCKS5 Proxy
After=network.target
[Service]
ExecStart=/usr/bin/microsocks -p 1080
Restart=always
User=nobody
Group=nogroup
[Install]
WantedBy=multi-user.target
########################################
Reverse-SSH-Tunnel.service
常驻自启动,Reverse to Port 1080, remote listen reverse-port,
[Unit]
Description=Reverse SSH Tunnel to SSH Server
After=network-online.target
Wants=network-online.target
[Service]
ExecStart=/usr/bin/ssh -o "ServerAliveInterval=60" -o "ServerAliveCountMax=3" -N
-R reverse-port:localhost:1080 user@server
Restart=always
RestartSec=10
User=jiang
[Install]
WantedBy=multi-user.target
##############################
1081LocalSocks5.service
常驻自启动,本机上添加端口 1081 用于本地 socks5 共享
Port 1081 Firewall enable
[Unit]
Description=Port 1081 Socks5 for locals
```

```
After=network-online.target
Wants=network-online.target
[Service]
ExecStart=/usr/bin/ssh -o "ServerAliveInterval=60" -o "ServerAliveCountMax=3" -N
-D 0.0.0.0:1081 user@server
Restart=always
RestartSec=10
User=jiang
[Install]
WantedBy=multi-user.target

systemctl daemon-reload, enable, start   1081LocalSocks5.service
##############################
Local iphone share the socks5


[Windows Client] --> HTTP Proxy --> [Linux Local: 192.168.2.102]
                            |
                       Privoxy on port 1082
                            |
                   forwards to SOCKS5 localhost:1080
                            |
                       SSH tunnel to Remote SSH Server



1 install  privoxy, set a port 1082 to listen and forward socks5 to 1081 which
is tunneled to remote ssh server
2 set proxy  to  privoxy server IP with port 1082

Install privoxy and modify /etc/privoxy/config
  listen-address 0.0.0.0:1082
  forward-socks5t / localhost:1081 .
  for debug add some lines more:
            logfile /var/log/privoxy.log
            debug   1
            debug   4096
            log-messages 1         ;this line help to monitor the traffic


forward-socks5t ⇒ use SOCKS 5 with Tor extensions
/ ⇒ match all URLs
localhost:1081 ⇒ your local SOCKS 5 proxy
. ⇒ do not chain to any HTTP proxy afterward (direct via SOCKS)

Update:  ufw, daemon-reload, enable, restart privoxy
Test:
    socks5 proxy is working: curl --socks5  localhost:1080  ifconfig.me
    privoxy is running:  ps aux | grep privoxy
    Listening to port:  sudo lsof -i :1080
    http proxy is working:  curl --proxy localhost:1080 ifconfig.me

On mobile:
    Set http proxy to 192.168.2.102:1082
    Test http proxy is working:  curl --proxy 192.168.2.102:1080 ifconfig.me

If necessary check  tail -f  ....../privoxy/logfile



####################################
+++++++Offshore ssh server Linux
/etc/ssh/sshd_config:
AllowTcpForwarding yes
```

```
GatewayPorts yes
PermitOpen any

systemctl restart sshd
++++++++++++++++++++++++++++++++++++++++++++
ssh-copy-id -p ssh-port22  -i id_ed25519.pub user@sshserver
to avoid  password prompt
SSH keybase login
##########################################
++++ Windows Client,Use Reverse Tunnel
ssh -L 1080:localhost:reverse-port user@sshserver
firefox proxy to localhost:1080
use socks5
Test  curl --socks5 localhost:1080 ifconfig.me
use proxy
Test  curl --proxy localhost:1082 ifconfig.me
Both should show HGH IP
##########################################
SYD site
curl --socks5 localhost:reverse-port ifconfig.me  -->HGH IP
Add a privoxy service forward to 1082
   daemon-reload, enable, start
curl --proxy localhost:1082 ifconfig.me -->HGH IP

####################################
To ssh via socks5
sudo apt install connect-proxy
modify ~/.ssh/config
Host myserver
    HostName remote-server.com
    User your_username
    ProxyCommand connect -S 127.0.0.1:1080 %h %p



####################
check if proxy data sent to certain port
sudo tcpdump -i any port 1082
```