

Hướng dẫn cài đặt và sử dụng PIVPN

1. Hướng dẫn cài đặt

a. Chuẩn bị

- Server Pi3 cài Rasbian Lite hoặc Ubuntu
- Kết nối internet
- 1 domain hoặc 1 IP cố định
- Cài OpenSSH Server để ssh vào
- Đảm bảo cài đặt sẵn **curl**

b. Cài đặt

Script cài đặt tự động và code lưu tại:

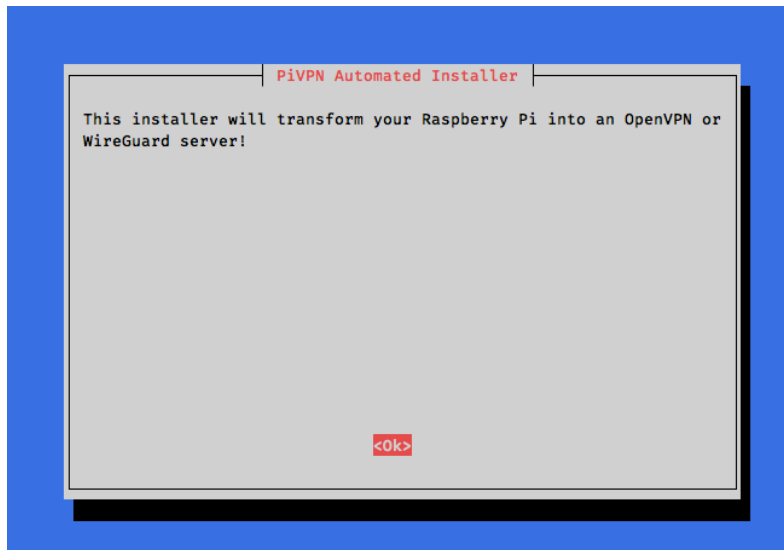
<https://github.com/baonq243/pivpn.git>

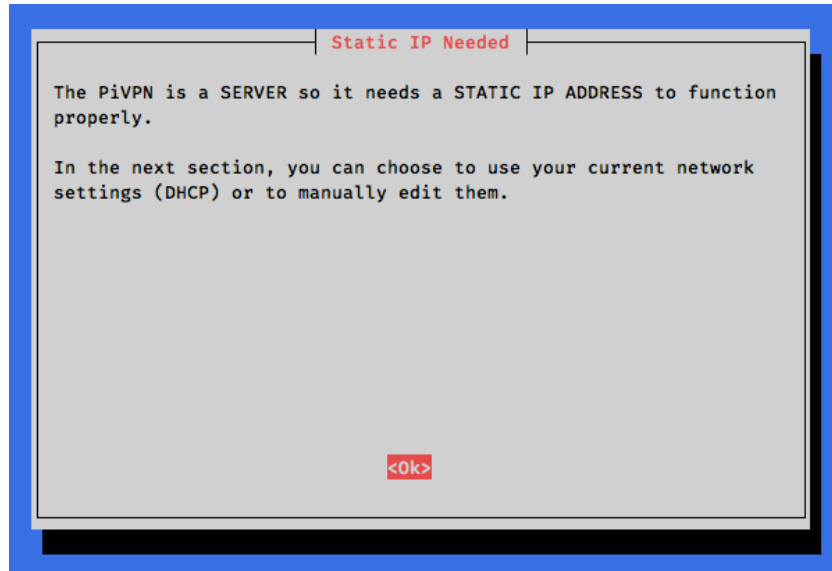
Để chạy script: sudo vào quyền root và chạy command sau:

curl

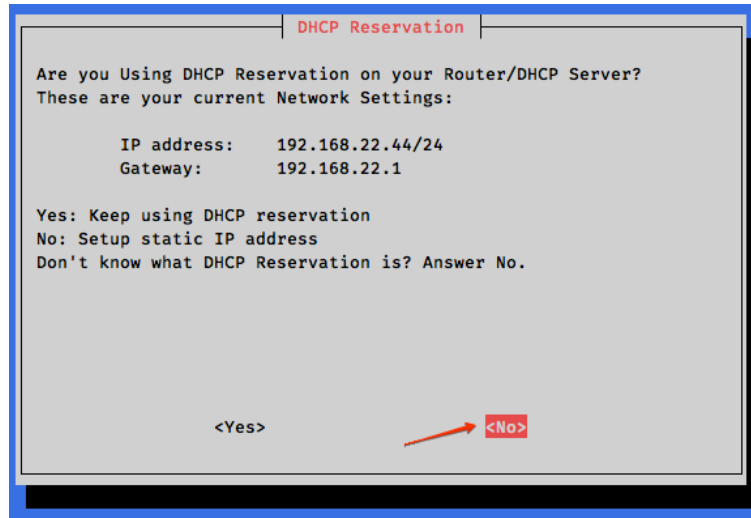
https://raw.githubusercontent.com/baonq243/pivpn/main/auto_install/install.sh | bash

Quá trình cài đặt sẽ qua các bước sau:

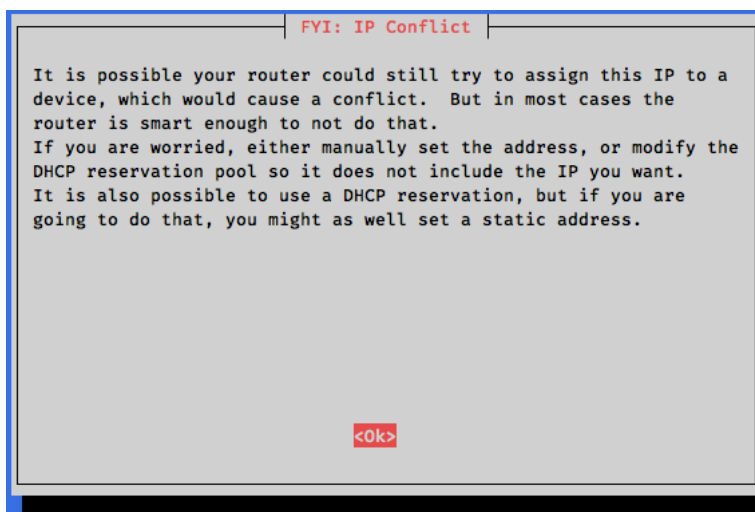
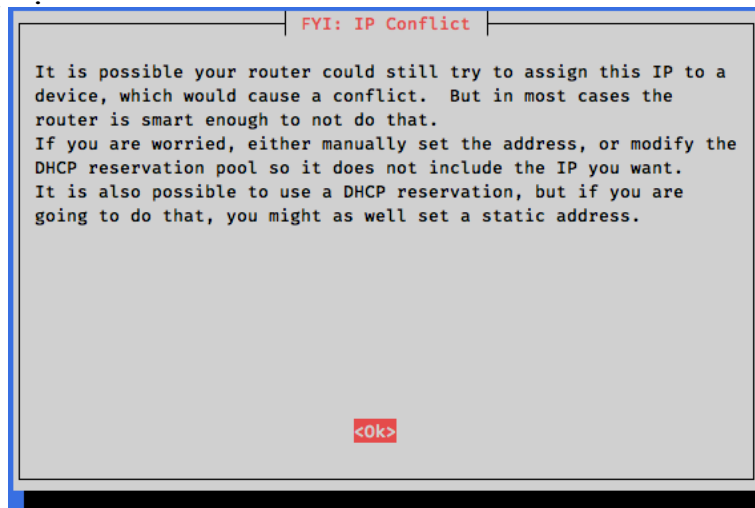


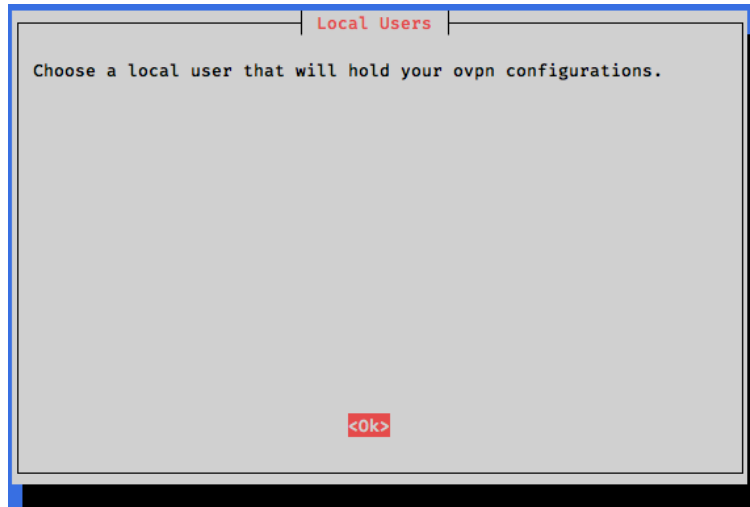


Chọn No để cài đặt IP static:



Chọn Ok để tiếp tục:

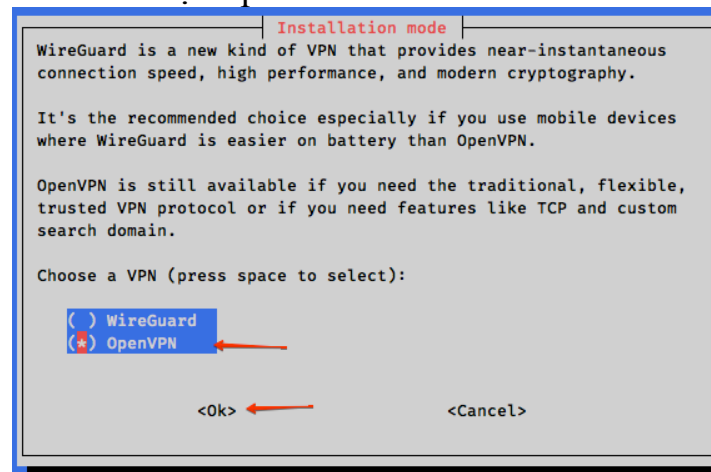




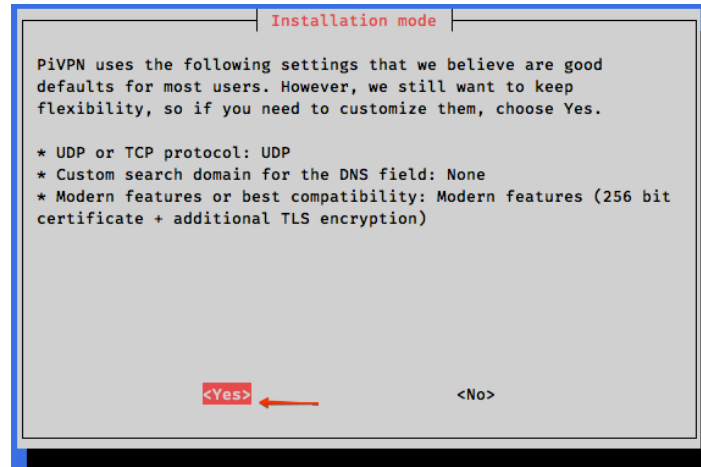
Chọn User OS:



Chọn OpenVPN để vào cài đặt OpenVPN



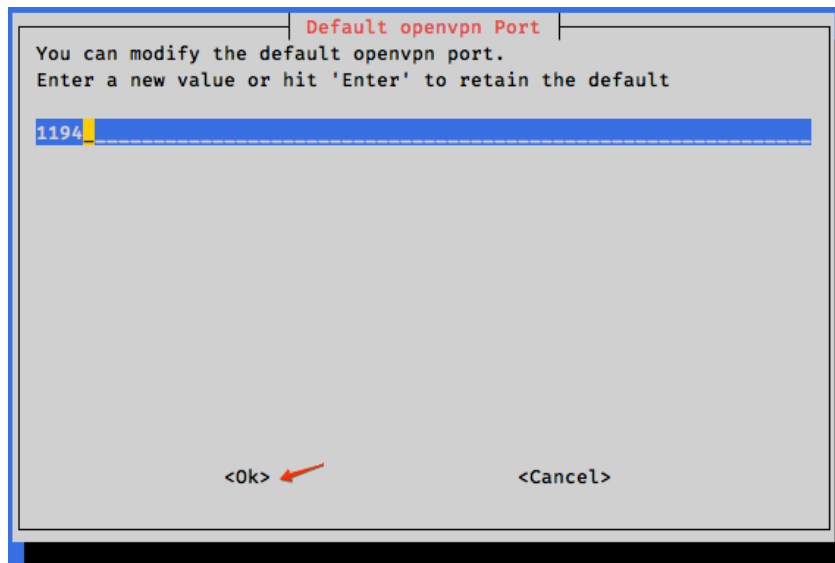
Chọn Yes để vào chế độ Custom



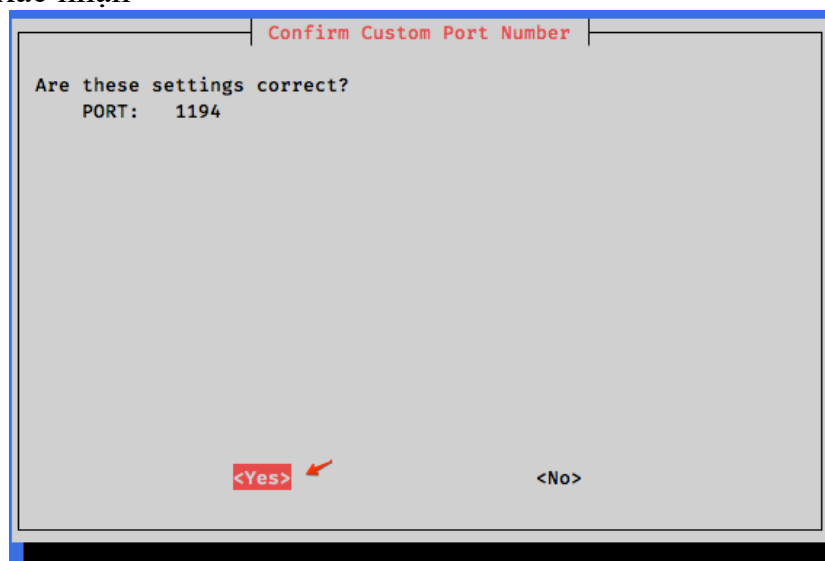
Chọn phương thức kết nối: UDP



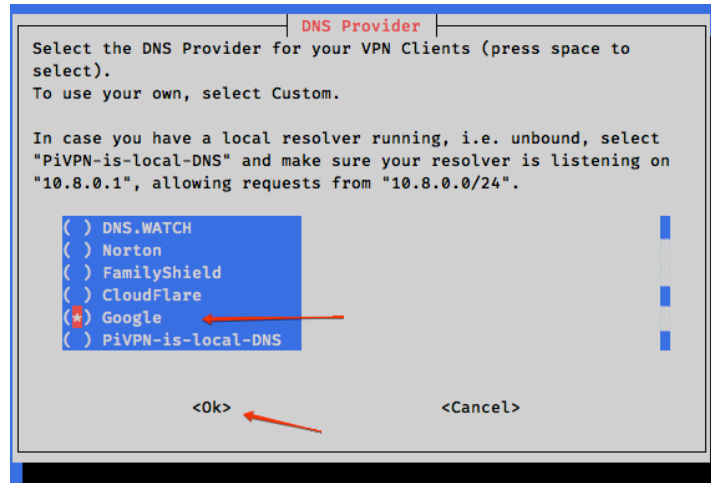
Port listen mặc định 1194: có thể thay đổi



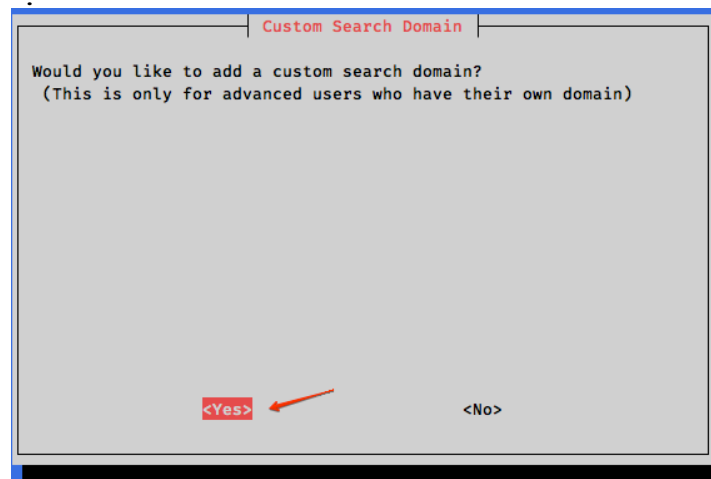
Chọn Yes để xác nhận



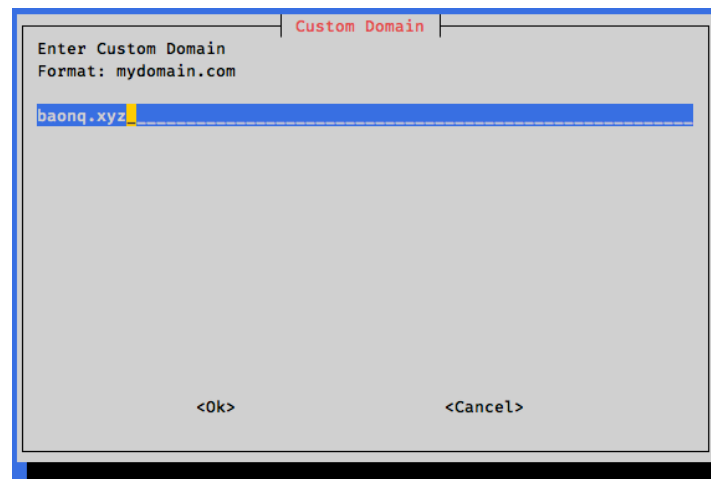
Chọn DNS server gửi xuống clients: 8.8.8.8

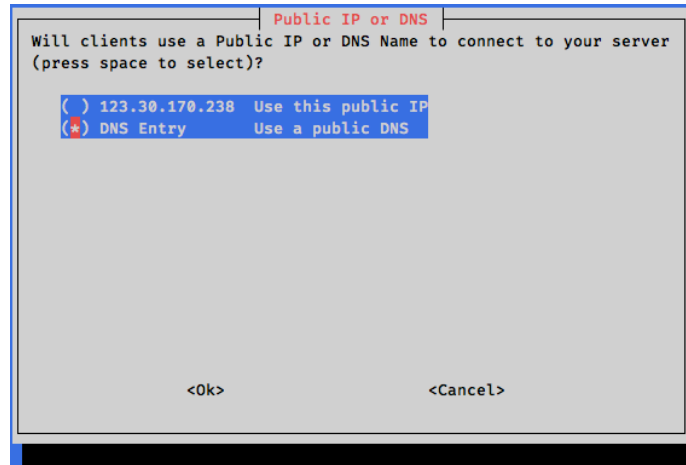


Chọn Yes để tiếp tục:

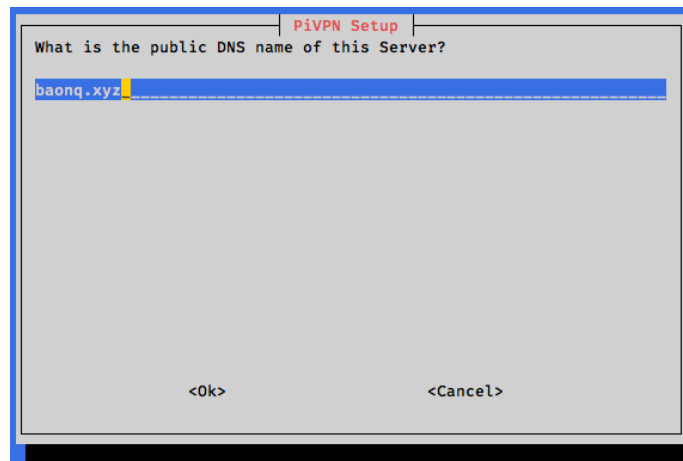


Điền domain client sẽ kết nối tới:

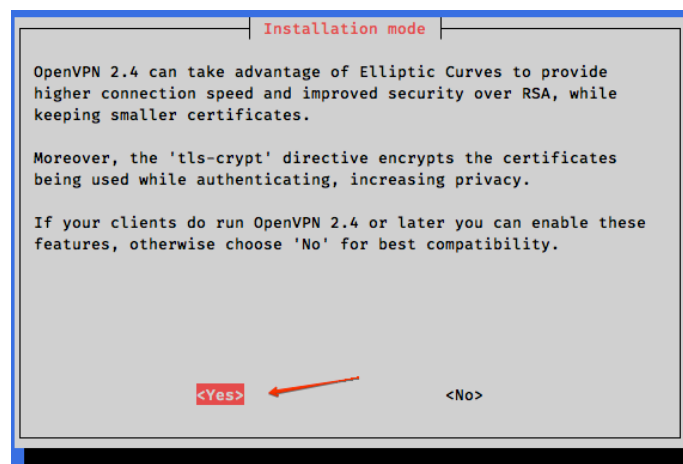




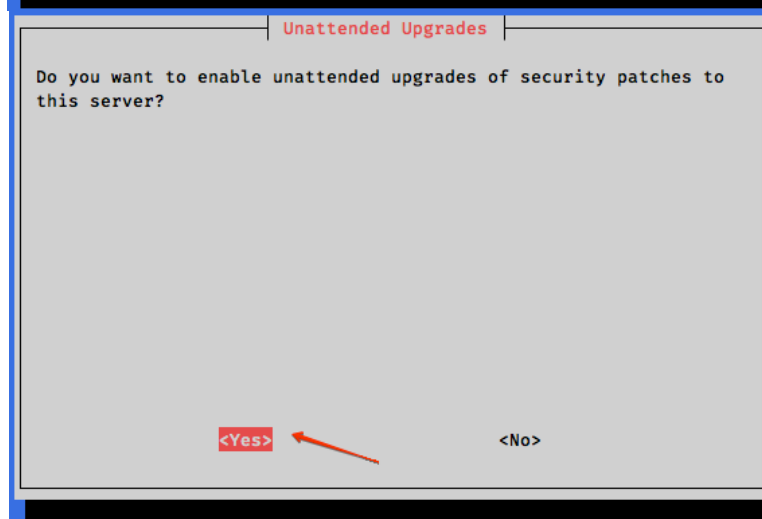
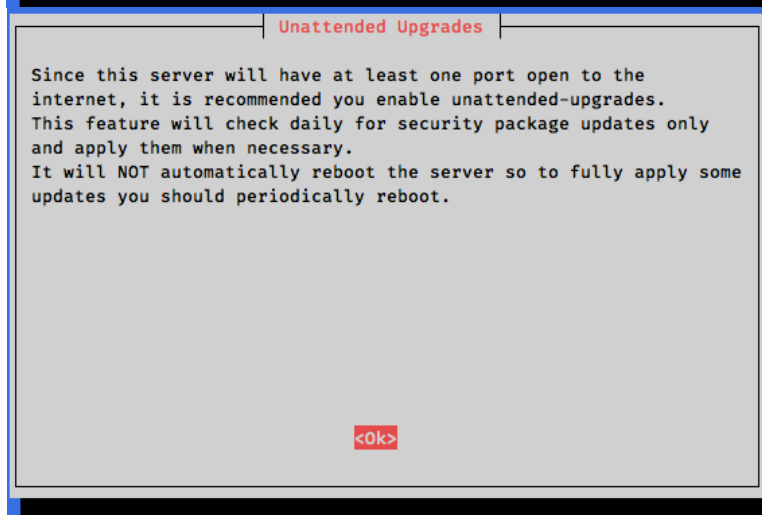
Điền domain client sẽ kết nối tới:



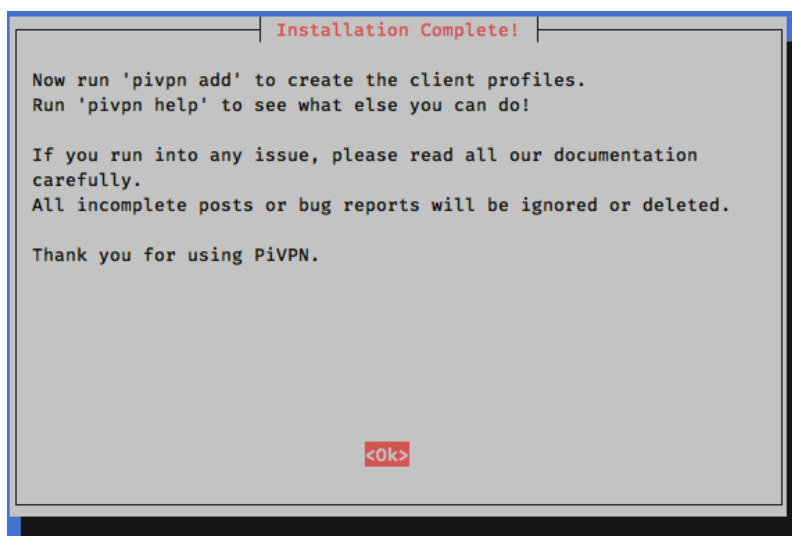
Yêu cầu OpenVPN client ver2.4 trở lên: chọn Yes để tiếp tục



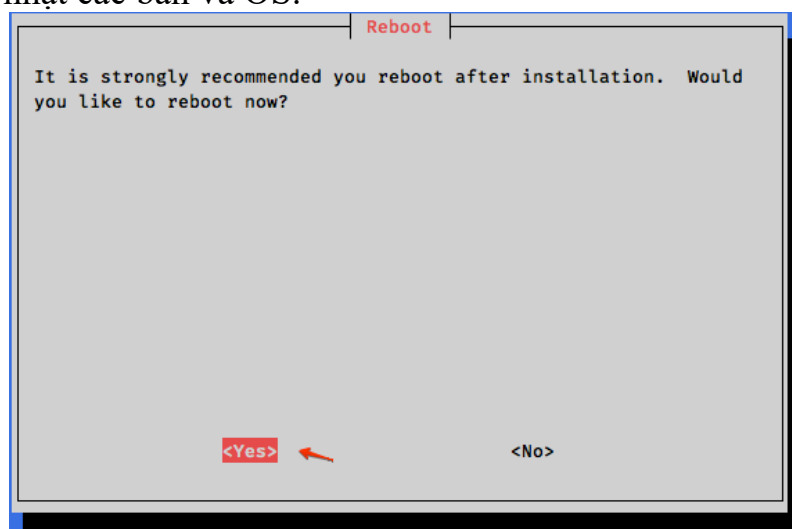
Chọn độ dài bit: 256



Chọn Ok để tiếp tục



Reboot để cập nhật các bản vá OS:



Kiểm tra openvpn đã hoạt động hay chưa: **netstat -tulpn**

```
root@raspberrypi:~# netstat -tulpn
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
tcp        0      0 0.0.0.0:22             0.0.0.0:*               LISTEN      566/sshd
tcp6       0      0 :::22                  :::*                     LISTEN      566/sshd
udp        0      0 0.0.0.0:68             0.0.0.0:*               557/dhcpd
udp        0      0 0.0.0.0:1194           0.0.0.0:*               561/openvpn
udp        0      0 0.0.0.0:5353           0.0.0.0:*               361/avahi-daemon: r
udp        0      0 0.0.0.0:43781          0.0.0.0:*               361/avahi-daemon: r
udp6       0      0 :::40936                :::*                     361/avahi-daemon: r
udp6       0      0 :::5353                 :::*                     361/avahi-daemon: r
root@raspberrypi:~#
```

2. Quản trị Openvpn:

Các command: pivpn hỗ trợ:

```

root@raspberrypi:~# pivpn -h
/bin/bash: warning: setlocale: LC_ALL: cannot change locale (en_US.UTF-8)
::: Control all PiVPN specific functions!
:::
::: Usage: pivpn <command> [option]
:::
::: Commands:
::: -a, add [nopass]      Create a client ovpn profile, optional nopass
::: -c, clients           List any connected clients to the server
::: -d, debug            Start a debugging session if having trouble
::: -l, list             List all valid and revoked certificates
::: -r, revoke           Revoke a client ovpn profile
::: -h, help             Show this help dialog
::: -u, uninstall        Uninstall PiVPN from your system!
::: -up, update          Updates PiVPN Scripts
::: -bk, backup          Backup Openvpn and ovpn dir
root@raspberrypi:~#

```

Tạo User bằng command: **pivpn -a**

Quá trình tạo sẽ hỏi điền username, số ngày tài khoản hết hạn và password

```

root@raspberrypi:~# pivpn -a
/bin/bash: warning: setlocale: LC_ALL: cannot change locale (en_US.UTF-8)
/bin/bash: warning: setlocale: LC_ALL: cannot change locale (en_US.UTF-8)
::: Create a client ovpn profile, optional nopass
:::
::: Usage: pivpn [-a|add] [-n|--name <arg>] [-p|--password <arg>][nopass] [-d|--days <number>] [-b|--bitwarden] [-i|--iOS] [-o|--ovpn] [-h|--help]
:::
::: Commands:
::: [none]                Interactive mode
::: nopass               Create a client without a password
::: -n,--name            Name for the Client (default: "raspberrypi")
::: -p,--password        Password for the Client (no default)
::: -d,--days           Expire the certificate after specified number of days (default: 1080)
::: -b,--bitwarden       Create and save a client through Bitwarden
::: -i,--iOS             Generate a certificate that leverages iOS keychain
::: -o,--ovpn            Regenerate a .ovpn config file for an existing client
::: -h,--help           Show this help dialog

Enter a Name for the Client: baonq
How many days should the certificate last? 1080
Enter the password for the client:
Enter the password again to verify:
spawn ./easyrsa build-client-full baonq

Note: using Easy-RSA configuration from: /etc/openvpn/easy-rsa/vars
Using SSL: openssl OpenSSL 1.1.1d 10 Sep 2019
Generating an EC private key
writing new private key to '/etc/openvpn/easy-rsa/pki/easy-rsa-933.42RHSv/tmp.cXFSDv'
Enter PEM pass phrase:
Verifying - Enter PEM pass phrase:
-----
Using configuration from /etc/openvpn/easy-rsa/pki/easy-rsa-933.42RHSv/tmp.bFa08A
Check that the request matches the signature
Signature ok
The Subject's Distinguished Name is as follows
commonName      :ASN.1 12:'baonq'
Certificate is to be certified until May 19 06:44:59 2024 GMT (1080 days)

Write out database with 1 new entries
Data Base Updated

Client's cert found: baonq.crt
Client's Private Key found: baonq.key
CA public Key found: ca.crt
tls Private Key found: ta.key

=====
Done! baonq.ovpn successfully created!
baonq.ovpn was copied to:
/home/pi/ovpn
for easy transfer. Please use this profile only on one
device and create additional profiles for other devices.
=====

```

List danh sách file đã tạo:

```

root@raspberrypi:~# ls /home/pi/ovpn
baonq.ovpn

```

Copy file .ovpn về các Client và kết nối VPN