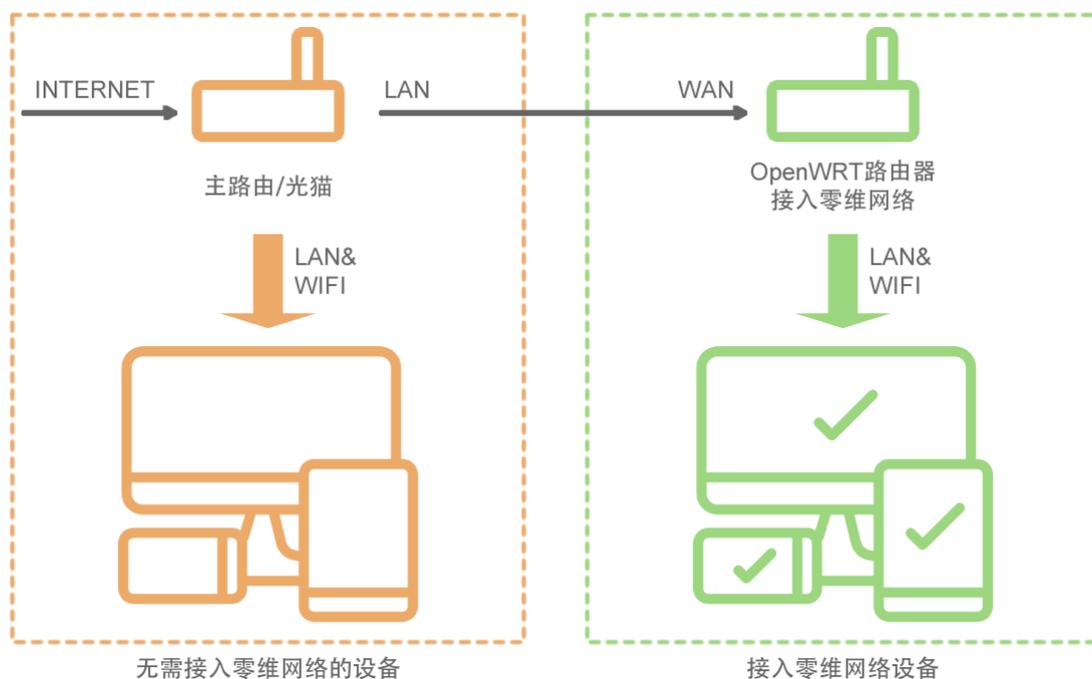


# OpenWrt 接入 OpenVPN 指南

## 必须条件

- 1, 适用的 OpenWrt 版本 : 19 以上
- 2, 本指南需要您具备一定的路由器操作知识
- 3, 在进行本指南之前, 请您确认路由器的 LAN 不在 10.82.0.0/16 和 10.83.0.0/16, 同时本路由器的 LAN 地址也不应该与前置路由器的 LAN 网络相冲突 (比如同为 192.168.1.1), 此时应该将其中一个路由器的 LAN 地址改为其它的地址, 比如 192.168.2.1/24。
- 4, 将用于连接至零维网络的路由器的 WAN 口连接至已联网的路由器的 LAN 口。



每一步都很重要, 请务必认真按照指南进行操作。

## 安装必要的软件包

- 1, 登录到路由器后, 请通过顶部的 “System” – “Software” 进入软件包管理界面。
- 2, 点击 “Update lists” 获取软件包列表。
- 3, 在 “Filter” 中依次搜索这些软件, 并点击 “install” 进行安装。
  - 1, luci-app-openvpn
  - 2, openvpn-openssl

## Software

Free space:  
97% (25.8 MB)

The screenshot shows the 'Software' management page. At the top, there's a 'Filter:' input field containing 'luci-app-openvpn' and a 'Clear' button. To the right, there's a 'Download and install package:' section with a 'Package name or URL...' input field and an 'OK' button. Further right, there are three buttons: 'Update lists...', 'Upload Package...', and 'Configure opkg...'. Below this, there are tabs for 'Available', 'Installed', and 'Updates'. A pagination bar shows 'Displaying 1-34 of 34'. A table lists available packages. The first row is highlighted with a red box around the package name 'luci-app-openvpn' and another red box around the 'Install...' button.

Package name	Version	Size (.ipk)	Description
luci-app-openvpn	git-22.025.78197-18b1130	12.8 KB	LuCI Support for OpenVPN

## 配置 OpenVPN 客户端

刷新一次网页后，您可以发现顶部导航多出了“VPN”。进入“VPN” – “OPENVPN”。删除所有默认的配置。

然后，目标转移到这里。

### OVPN configuration file upload

The screenshot shows the 'OVPN configuration file upload' form. It has a text input field containing 'OneVnet-OVA'. To its right is a '选择文件' (Choose file) button, followed by the text 'OV.A.TCP.ovpn'. Further right is an 'Upload' button.

左侧框框中填写配置名称，您可以任意填写。

点击“选择文件”选择下载回来 ovpn 文件，然后点击“upload”。

接下来，您可以在“OpenVPN Instances”看到刚刚上传的配置文件，点击“Edit”。

### OpenVPN instances

Below is a list of configured OpenVPN instances and their current state

Name	Enabled	Started	Start/Stop	Port	Protocol	
OneVnetOVA	<input type="checkbox"/>	no	<input type="button" value="start"/>	500	tcp	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

现在，我们要开始为其配置账号密码。

请按照截图进行操作，将红框处，由系统提供的额外配置选项，写入到蓝色框框的位置。然后，再在绿色框框处填写您的零维账号和密码。最后点击“Sava”。

## Overview » Instance "OneVnetOVA"

Section to modify the OVPN config file (/etc/openvpn/OneVnetOVA.ovpn)

```
ucwGZEGERt6PMVzJl0KzkDJFwLz5TsYzJXh0wPEnz6D9Tf+SV2HK11cPsiq6W81B
kG7a6RiUGoFh9CEgCcQ1BIIdkc+N77+Dc1etD7BHxYvNtJ0eMiYT+1gtM6cTpyL1
Vj76QZ2xoE9p/2Z1VGFsvZPOS.jjhJbk1++vUfIB6z02CP2Shk7/G/mnhP+y8Rv+j
m09tWfG0XcY6Wubep3nYAfLk18T82m1NutLGJpzz1NWY4zancgPgCTh/AaAmT9K
br810gs54zAC2WYSX1gQD7V/+Poi2arOYSCaJ5AqTnkWYB079R9+ow1DAQABo4IB
FjCCARIwHqYDVR00BIEFPBjv1541+IueREqKH89Nyx8jhrAMIHIBgNVHSMEdow
gdeAFpbjv1541+IueREqKH89Nyx8jhrAoYgZpIGwMLGtMQswCQYDVQQGEwJVUzEL
MAkGA1UECBMCQ0EzFTATBgNVBAcTDGFhbnkzYzYwNSJhbnkzYzYwNSJhbnkzYzYw
dC1GdW5zdG9uMR0wGyYDVQQLEzRNeU9yZ2FuaXphdG11bmF5YW5pdDEPMAOGA1UE
AxMGe2VydmlMRARwDgYDVQQpEwdFYXN5U1NBMSU1NBMSU1NBMSU1NBMSU1NBMSU1
eWhvc3QubXlkZ1haW6CCQCBaJjSjVaneTAMBgNVHRMBAQAD/MAOGCSqGSIb3
DQgEBCUAA4IBAQA0jYzcnQX35+ jzgKJixdyXzwlEsgviCDJnRfJdW1V9Z+vtfWw
pEZZYezwRNd6SG910m1u4//k6m2ydhFH13/aT0wmpGc200p10t2yzoVnFAJfSStk
w8JQe9WNBa1MIqJfIrpXzZc65sCjtrm/5E1yr9V9kD9m0ZKB91yvf1XfR7uurXxq
HHSLzaTAC15c1WzGPNr3cBbk+ezbgL1YrJ0x3DOWFR0PAkpnWvFBQGCXqausLZ1
HO1OLUdeJyrc2s8aEM9d1VbkLRGpIKNP+3bt/jX9R23kGoJT+NFGYw4czcJvSS4Q
IJrKshPn1FvG4TrA3YbB+n/C3k/C+nwVsymD
-----END CERTIFICATE-----
</ca>
auth-user-pass /etc/openvpn/OneVnetOVA.auth
```

注意，pass 后面有一个空格

Section to add an optional `auth-user-pass` file with your credentials `/etc/openvpn/OneVnetOVA.auth`

```
onevnet 第一行为零维账号
onevnet123456 第二行为密码
```

Save

点击“overview”回到主界面。将“Enable”勾上，再点击“Save & apply”激活 OpenVPN。

## OpenVPN

### OpenVPN instances

Below is a list of configured OpenVPN instances and their current state

Name	Enabled	Started	Start/Stop	Port	Protocol	
OneVnetOVA	<input checked="" type="checkbox"/>	yes (6084)	stop	500	tcp	<a href="#">Edit</a> <a href="#">Delete</a>

至此，OpenVPN 已经完成配置并连接至零维网络了，不过现在还无法使用，我们需要进行最后一步：调整防火墙。

## 调整防火墙配置

点击顶部导航栏的“Nework” – “Firewall”，进入到这个界面。

General Settings Port Forwards Traffic Rules NAT Rules

## Firewall - Zone Settings

The firewall creates zones over your network interfaces to control network traffic flow.

### General Settings

Enable SYN-flood protection

Drop invalid packets

Input: accept

Output: accept

Forward: reject

### Routing/NAT Offloading

Experimental feature. Not fully compatible with QoS/SQM.

Software flow offloading

Software based offloading for routing/NAT

### Zones

Zone → Forwardings	Input	Output	Forward	Masquerading	
lan ⇒ wan	accept	accept	accept	<input type="checkbox"/>	⋮ Edit Delete
wan ⇒ REJECT	reject	accept	reject	<input checked="" type="checkbox"/>	⋮ Edit Delete

Add

点击红框处的“Edit”按钮。

切换到“Advanced Settings”，点击“Covered devices”，勾选“tun0”。

General Settings **Advanced Settings** Conntrack Settings

The options below control the forwarding policies between this zone (wan) and other zones. *Destination zones* cover forwarded traffic **originating from wan**. *Source zones* match forwarded traffic from other zones **targeted at wan**. The forwarding rule is *unidirectional*, e.g. a forward from lan to wan does *not* imply a permission to forward from wan to lan as well.

Covered devices: tun0

Covered subnets:

Restrict to address family:  Ethernet Adapter: "tun0"

Restrict Masquerading to given source subnets:

Restrict Masquerading to given destination subnets: 0.0.0.0/0

Enable logging on this zone

Dismiss Save

点击“Save”，然后点击“Save & Apply”。

## 调整启动项顺序

如果不调整启动项顺序，OpenWrt 会在启动系统时同时启动 OpenVPN，导致路由器网络

异常，因此，需要在路由器正常启动完所有接口后，再启动 OpenVPN 客户端。

具体做法时：

- 1, 进入 “System” – “Startup”
- 2, 找到 OpenVPN 启动项，然后将其设置为 Disabled（默认为 Enabled，只需要点击一次按钮即可）

### Startup

Initscripts Local Startup

You can enable or disable installed init scripts here. Changes will be applied after a device reboot.  
**Warning: If you disable essential init scripts like "network", your device might become inaccessible!**

3,

Start priority	Initscript	
90	openvpn	<span>Disabled</span> <span>Start</span> <span>Restart</span> <span>Stop</span>

4, 点击 “Local Startup”，在红框位置输入

5, “sleep 5”

6, “/etc/init.d/openvpn start”

### Startup

Initscripts Local Startup

This is the content of /etc/rc.local. Insert your own commands here (in front of 'exit 0') to execute them at the end of the boot process.

```
# Put your custom commands here that should be executed once  
# the system init finished. By default this file does nothing.
```

```
sleep 5  
/etc/init.d/openvpn start
```

7,

8, 点击 “Save” 保存

## 完成

至此，所有配置都完成了！

您可以随时在 <https://vnet.one/ips> 查看是否已经接入到了零维网络。