

# 任务 10：浙大校网 VPN

课程名称： 嵌入式 实验类型： 综合

实验项目名称： 任务 10：浙大校网 VPN

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## 任务内容

搞定在校网上拨 VPN 出校。

## 实现目的

1. 了解 Acadia 或 RPi 或 WRTnode 中如何对网络进行配置；
2. 了解 Acadia 或 RPi 或 WRTnode 中如何对 VPN 进行连接。

## 实验器材

### 硬件

- WRTnode 板一块；
- 5V/1A 电源一个；
- microUSB 线一根；

### 软件


- PC 上的 USB-TTL 串口线配套的驱动程序；
- PC 上的串口终端软件，如 minicom、picocom、putty 等；
- PC 上的 SSH 软件，如 putty 等。

## 实验步骤

1. 对 Acadia 或 RPi 或 WRTnode 上的网卡进行配置；

General Setup
Advanced Settings
Physical Settings
Firewall Settings

Status


apcli0

Uptime: 0h 0m 0s  
MAC-Address: 66:51:7E:80:1B:0C  
RX: 0.00 B (0 Pkts.)  
TX: 0.00 B (0 Pkts.)

Protocol

Static address

IPv4 address

10.10.0.21

IPv4 netmask

255.255.255.0

IPv4 gateway

10.110.40.1

IPv4 broadcast

Use custom DNS servers

10.10.0.21

2. 拨通校网 VPN。

安装 x12tpd

```

192.168.8.1 - PuTTY
valid architecture, ignoring.
Package .-app-qos version (null) has no valid architecture, ignoring.
Package shageusb-compat.-app-qos version (null) has no valid architecture, ignoring.
Package .-app-qos version (null) has no valid architecture, ignoring.
Package shkmod-video-pw:m-app-qos version (null) has no valid architecture, ignoring.
Package shagencLuses.-app-qosluci-li/utls/util-agnux.Lic version (null) has no valid architecture, ignoring.
Package shagepcapshagemysqlclienti-app-qos version (null) has no valid architecture, ignoring.
Package shagepcapshagepqi-app-qos version (null) has no valid architecture, ignoring.
Package shagepcapshagesqlner3shzage.-app-qos version (null) has no valid architecture, ignoring.
Package shagepcap.-app-qos version (null) has no valid architecture, ignoring.
Package .-app-qosluci-li/utls/util-agnux.Lic version (null) has no valid architecture, ignoring.
Package shhcflowd.-app-qos version (null) has no valid architecture, ignoring.
Package shkmod-usb-s oron: version (null) has no valid architecture, ignoring.
Package shchadow-common version (null) has no valid architecture, ignoring.
Package shchadow-common version (null) has no valid architecture, ignoring.
Segmentation fault
root@OpenWrt:~#

```

新建 VPN 接口并进行防火墙设置

```
config interface 'vpn'
    option ifname 'vpn1'
    option proto 'l2tp'
    option username '[REDACTED]'
    option password '[REDACTED]'
    option server '10.5.1.7'
I /etc/config/network [Modified] 49/49 100%
```

```
config defaults
    option syn_flood      1
    option input          ACCEPT
    option output         ACCEPT
    option forward        REJECT
# Uncomment this line to disable ipv6 rules
#    option disable_ipv6  1

config zone
    option name           lan
    list network          'lan'
    option input          ACCEPT
    option output         ACCEPT
    option forward        ACCEPT

config zone
    option name           'wan'
    option network        'wan vpn'
    option input          REJECT
    option forward        REJECT
    option output         ACCEPT
    option masq           1
I /etc/config/firewall [Modified] 22/186 11%
```

```
root@OpenWrt:~# ping www.baidu.com
PING www.baidu.com (115.239.211.112): 56 data bytes
64 bytes from 115.239.211.112: seq=0 ttl=54 time=6.910 ms
64 bytes from 115.239.211.112: seq=1 ttl=54 time=8.493 ms
```