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Here are my notes how to configure pppoe-server to run as server for ADSL modem.

## Prerequisites

This list might be incomplete

```
apt-get install pppoe
```

## PPP configuration

### /etc/ppp/pppoe-server-options

```
# PPPoE server
#nologin
mru 1492
noreplacedefaultroute
proxyarp
ms-dns 192.168.1.1
```

### /etc/ppp/pap-secrets

```
# PPPoE server
#client hostname      <password>      IP
test      *          "test"          *
```

### /etc/ppp/chap-secrets

```
# client      server  secret  IP addresses
test          *      test    *
```

# Configuration

We will have fake network 10.0.0.0 on IP alias `eth0:1` and will give out addresses in that range. While we could go with just one network, this is more clean, since we will see difference in packets traveling over PPP link as opposed to direct connection.

```
ifconfig eth0 192.168.1.90 up
ifconfig eth0:1 10.0.0.1 up
```

## PADI

```
pppoe-relay -B eth0:1 -C eth0 -n 1 -F
```

## PPPoE

```
pppoe-server -I eth0:1 -T 60 -C fake -S fake -L 10.0.0.2 -R 10.0.0.10 -N 1 -F
```

## NAT

```
iptables -t nat -A POSTROUTING -s 10.0.0.0/24 -j SNAT --to-source 192.168.1.90
```

# Debugging

To sniff all traffic expect web (I guess that most ADSL modems have web interface) use something like:

```
tshark -i eth0 -f '!port 80'
```