

# t-online

This is about connecting the Draytec Vigor 165 as simple Modem to a VDSL2 t-online connection in Germany

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# setup



I am using the following hardware for this setup

- 1 DrayTek Vigor 165 as VDSL2 Modem (250/40 Connection)
- 1 apu3c4 (black) as OPNsense router (VLAN WIFI LAN)
- 1 apu3c4 (red) as docker host (LAN) with a 1TB SATA SSD inside
- 1 Cisco SG 200-8

# DrayTek Vigor 165

I did configure the DrayTek Vigor 165 as a Modem with t-online.

I use the following settings

**DrayTek Vigor165**

Auto Logout IPv6

Wizards  
Online Status

Internet Access  
**General Setup**  
PPPoE / PPPoA  
MPoA / Static or dynamic IP  
IPv6  
Multi-PVC/VLAN  
LAN  
Routing  
NAT  
Firewall  
Objects Setting  
CSM  
Applications  
System Maintenance  
Diagnostics

Support Area  
Product Registration

All Rights Reserved.

Internet Access >> General Setup

**WAN 1**

Display Name: Telekom  
Physical Mode: VDSL2  
DSL Mode: Auto  
DSL Modem Code: Default

VLAN Tag insertion	Customer	Service
<b>ADSL</b>	Disable Tag value: 0 (0~4095) Priority: 0 (0~7)	
<b>VDSL2</b>	Enable Tag value: 7 (0~4095) Priority: 0 (0~7)	Disable Tag value: 0 (0~4095) Priority: 0 (0~7)

**Note:**  
In DSL auto mode, the router will reboot automatically while switching between VDSL2 and ADSL lines.

**DrayTek Vigor165**

Auto Logout IPv6

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Internet Access >> PPPoE / PPPoA

**PPPoE / PPPoA Client Mode**

PPPoE/PPPoA Client  Enable  Disable

**DSL Modem Settings (for ADSL mode only)**

Multi-PVC channel: Channel 1  
VPI: 8  
VCI: 35  
Encapsulating Type: VC MUX  
Protocol: PPPoA  
Modulation: Multimode

**PPPoE Pass-through**

For Wired LAN<sup>2</sup>

**WAN Connection Detection**

Mode: ARP Detect

**MTU**: 1500 (Max:1500)

Auto Logout IPv6

Wizards  
Online Status

Internet Access  
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PPPoE / PPPoA  
**MPoA / Static or dynamic IP**  
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Status: Ready

MPoA / Static or dynamic IP

**MPoA (RFC1483/2684)**  Enable  Disable

**DSL Modem Settings (for ADSL mode only)**

Multi-PVC channel Channel 2

Encapsulation 1483 Bridged IP LLC

VPI 1

VCI 32

Modulation Multimode

**WAN Connection Detection**

Mode ARP Detect

**MTU** 1500  
(Max: 1500)

**RIP Protocol**

Enable RIP

**Bridge Mode**

Enable Full Bridge Mode  
 Enable Bridge Mode

WAN IP Network Settings

Obtain an IP address automatically

Router Name router01

Domain Name home

DHCP Client Identifier \*

Username

Password

Specify an IP address WAN IP Alias

IP Address 0.0.0.0

Subnet Mask 0.0.0.0

Gateway IP Address 0.0.0.0

Default MAC Address  
 Specify a MAC Address

MAC Address: 01 · 11 · A · 94 · 3 · 1

**DNS Server IP Address**

Primary IP Address 1.1.1.1

Secondary IP Address 8.8.8.8

Auto Logout IPv6

Wizards  
Online Status

Internet Access  
General Setup  
PPPoE / PPPoA  
MPoA / Static or dynamic IP  
IPv6  
**Multi-PVC/VLAN**  
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Internet Access >> Multi-PVC/VLAN

Multi-PVC/VLAN

Channel	Enable	WAN Type	VPI/VCI	VLAN Tag
1	<input checked="" type="checkbox"/>	VDSL		7
3. WAN3	<input type="checkbox"/>	VDSL		None
4. WAN4	<input type="checkbox"/>	VDSL		None
5. WAN5	<input type="checkbox"/>	VDSL		None
6.	<input type="checkbox"/>	VDSL		None

Note:  
Channel 2 is reserved.

Auto Logout IPv6

Wizards  
Online Status

Internet Access  
LAN  
**General Setup**  
Bind IP to MAC  
Routing  
NAT  
Firewall  
Objects Setting  
CSM  
Applications  
System Maintenance  
Diagnostics

Support Area  
Product Registration

LAN >> General Setup

**Ethernet TCP / IP and DHCP Setup**

**LAN IP Network Configuration**

For NAT Usage

1st IP Address 10.51.0.1

1st Subnet Mask 255.255.255.0 / 24

For IP Routing Usage  Enable  Disable

2nd IP Address 192.168.2.1

2nd Subnet Mask 255.255.255.0

RIP Protocol Control Disable

**LAN 1 IPv6 Setup**

**DHCP Server Configuration**

Disable  Enable Server

Relay Agent:  1st Subnet  2nd Subnet

**DNS Server IP Address**

Primary IP Address

Secondary IP Address

Force router to use address for DNS



# docker

To be able to reach the DrayTec Vigor 165 admin page from other vlans I added a route to traefik.

This is my `/etc/environment` file

```
PATH="/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games"
"
PUID=1001
PGID=1001
TZ="Europe/Zurich"
DOMAINNAME="apu07.home"
DNS=10.51.0.254
```

This is my `docker-compose.yml` file

```
version: '3.7'

services:
  traefik:
    container_name: traefik
    domainname: ${DOMAINNAME}
    image: traefik
    restart: unless-stopped
    command:
      - --api.insecure=true
      - --providers.docker
      - --providers.docker.exposedbydefault=false
      - --entrypoints.web.address=:80
      - --providers.file.directory=/rules
      - --providers.file.watch=true
      #- --providers.docker.defaultRule="Host(`${DOMAINNAME}`)"
    ports:
      - "80:80"
      - "443:443"
      - "8080:8080"
    volumes:
      - /var/run/docker.sock:/var/run/docker.sock
```

```
- ./traefik/rules:/rules
networks:
- default
- discovery
dns:
- ${DNS}
```

```
networks:
discovery:
```

And I have traefik rules in a `traefik/rules/vigor.toml` file for the DrayTec Vigor 165

```
[http.routers]
  [http.routers.vigor-rtr]
    entryPoints = ["web"]
    rule = "Host(`vigor.apu07.home`)"
    service = "vigor-svc"

[http.services]
  [http.services.vigor-svc]
    [http.services.vigor-svc.loadBalancer]
      passHostHeader = true
      [[http.services.vigor-svc.loadBalancer.servers]]
        url = "http://10.51.0.1:80"
```