Home Network

"Your friends on trex all usin' PGP? I'll fuckin' read it in hex; that ain't shit to me."

2021-11-27

Hardware

Cable Modem

TODO

Router

Hostname `openwrt.lan`
Model TP-Link Archer C5
Version 21.02.3

Updating

```
opkg update
opkg list-upgradable
opkg list-upgradable | cut -f 1 -d ' ' | xargs -r opkg upgrade
```

Switch

TODO

Wireless AP

Model TP-Link EAP610 V2

NAS

Hostname `nas.lan`
Model QNAP TS-251
Disk 1 WDC WD40EFRX-68WT0N0 4TB
Disk 2 WDC WD40EFRX-68WT0N0 4TB

Printer

Hostname `BRW1008B16E541A.lan`

Model Brother HL-L2340D
Unprintable Area (Margins) 0.16"

```
yay brlaser
```

Raspberry Pi Rack

Io

Hostname `io`
Model Raspberry Pi 4 Model B Rev 1.2

Europa

Hostname `europa`
Model Raspberry Pi 4 Model B Rev 1.2

Services

- Home Assistant

Ganymede

Hostname `ganymede`
Model Raspberry Pi 3 Model B Rev 1.2

Services

- Blink Comparator
- Telegram Bot
- Timelapse

Callisto

Hostname `callisto`
Model Raspberry Pi Model B Rev 2

Thebe

Hostname `thebe`
Model Raspberry Pi Model B Rev 2

Misc.

```
ssh-copy-id -i ~/.ssh/id_rsa.pub kyle@io.lan
```

```
cat /sys/firmware/devicetree/base/model
```

Network

Static IPs

IP Address	Hostname	Description
10.0.0.1	openwrt.lan	Router
10.0.0.102	nas.lan	NAS
10.0.0.125	europa.lan	Home Assistant

Trusted VNET

IP Address 10.0.0.1
Network Address 10.0.0.0
Usable Host IP Range 10.0.0.1 - 10.0.255.254
Broadcast Address 10.0.255.255
Total Number of Hosts 65,536
Number of Usable Hosts 65,534
Subnet Mask 255.255.0.0
Wildcard Mask 0.0.255.255
Binary Subnet Mask 11111111.11111111.00000000.00000000
IP Class B
CIDR Notation /16
IP Type Private

Untrusted VNET

IP Address 10.1.0.1
Network Address 10.1.0.0
Usable Host IP Range 10.1.0.1 - 10.1.255.254
Broadcast Address 10.1.255.255
Total Number of Hosts 65,536
Number of Usable Hosts 65,534
Subnet Mask 255.255.0.0
Wildcard Mask 0.0.255.255
Binary Subnet Mask 11111111.11111111.00000000.00000000
IP Class B
CIDR Notation /16
IP Type Private

Configuration

Router

/etc/config/system

```
config system
    option hostname 'OpenWrt'
    option timezone 'UTC'
    option ttylogin '0'
    option log_size '64'
    option urandom_seed '0'

config timeserver 'ntp'
    option enabled '1'
    option enable_server '0'
    list server '0.openwrt.pool.ntp.org'
    list server '1.openwrt.pool.ntp.org'
    list server '2.openwrt.pool.ntp.org'
    list server '3.openwrt.pool.ntp.org'
```

/etc/config/network

```
config interface 'loopback'
    option device 'lo'
    option proto 'static'
    option ipaddr '127.0.0.1'
    option netmask '255.0.0.0'

config globals 'globals'
    option ula_prefix 'fdbe:7046:3929::/48'

config device
    option name 'br-lan'
    option type 'bridge'
    list ports 'eth1.1'

config interface 'lan'
    option device 'br-lan'
    option proto 'static'
    option ipaddr '10.0.0.1'
    option netmask '255.255.0.0'
    option ip6assign '60'
    list dns '10.0.0.125'

config interface 'wan'
    option device 'eth0.2'
    option proto 'dhcp'

config interface 'wan6'
    option device 'eth0.2'
    option proto 'dhcpv6'

config interface 'iot'
    option device 'br-iot'
    option proto 'static'
    option ipaddr '10.1.0.1'
    option netmask '255.255.0.0'
    option ip6assign '60'

config switch
    option name 'switch0'
    option reset '1'
    option enable_vlan '1'

config switch_vlan
    option device 'switch0'
    option vlan '1'
    option vid '1'
    option ports '0t 2 3 4'
    option description 'LAN'

config switch_vlan
    option device 'switch0'
    option vlan '3'
    option vid '3'
    option ports '0t 5'
    option description 'IoT'

config switch_vlan
    option device 'switch0'
    option vlan '2'
```

```
/etc/config/dhcp
```

```
config dnsmasq
    option domainneeded '1'
    option localise_queries '1'
    option rebind_protection '1'
    option rebind_localhost '1'
    option local '/lan/'
    option domain 'lan'
    option expandhosts '1'
    option readethers '1'
    option leasefile '/tmp/dhcp.leases'
    option resolvfile '/tmp/resolv.conf.d/resolv.conf.auto'
    option ednspacket_max '1232'
    option sequential_ip '1'
    option authoritative '1'
    option localservice '1'

config dhcp 'lan'
    option interface 'lan'
    option start '100'
    option limit '150'
    option leasetime '12h'
    option dhcpv4 'server'
    option dhcpv6 'server'
    option ra 'server'
    list ra_flags 'managed-config'
    list ra_flags 'other-config'

config dhcp 'wan'
    option interface 'wan'
    option ignore '1'

config odhcpd 'odhcpd'
    option maindhcp '0'
    option leasefile '/tmp/hosts/odhcpd'
    option leasetrigger '/usr/sbin/odhcpd-update'
    option loglevel '4'

config dhcp 'iot'
    option interface 'iot'
    option start '100'
    option limit '150'
    option leasetime '12h'
    option dhcpv4 'server'
    option dhcpv6 'server'
    option ra 'server'
    option ra_slaac '1'
    list ra_flags 'managed-config'
    list ra_flags 'other-config'

config host
    option ip '10.0.0.134'
    option mac '2C:AA:8E:2C:63:9A'

# Wyze Cam 1
config host
    option ip '10.0.0.136'
    option mac '2C:AA:8E:2F:7A:15'

# Wyze Cam 2
```

/etc/config/wireless

```
config wifi-device 'radio0'
    option type 'mac80211'
    option path 'pci0000:00/0000:00:00.0'
    option channel '36'
    option band '5g'
    option htmode 'VHT80'
    option cell_density '0'
    option disabled '1'

config wifi-device 'radio1'
    option type 'mac80211'
    option path 'platform/ahb/18100000.wmac'
    option channel '1'
    option band '2g'
    option htmode 'HT20'
    option cell_density '0'

config wifi-iface 'wifinet2'
    option device 'radio0'
    option mode 'ap'
    option ssid 'OpenWrt'
    option encryption 'sae-mixed'
    option key '0n0kd1n8'
    option network 'lan'
    option disabled '1'

config wifi-iface 'wifinet1'
    option device 'radio1'
    option mode 'ap'
    option network 'iot'
    option encryption 'psk-mixed'
    option key '0n0kd1n8'
    option ssid 'K IoT'
    option hidden '1'
```

/etc/config/firewall

```
config defaults
    option input 'ACCEPT'
    option output 'ACCEPT'
    option forward 'REJECT'
    option synflood_protect '1'

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

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

config zone
    option name 'wan'
    list network 'wan'
    list network 'wan6'
    option input 'REJECT'
    option output 'ACCEPT'
    option forward 'REJECT'
    option masq '1'
    option mtu_fix '1'

config forwarding
    option src 'lan'
    option dest 'wan'

config rule
    option name 'Block Wyze'
    option dest 'wan'
    option target 'REJECT'
    option src 'lan'
    list src_mac '2C:AA:8E:2C:63:9A'
    list src_mac '2C:AA:8E:2E:D8:86'
    list src_mac '2C:AA:8E:2F:7A:15'
    list src_mac '2C:AA:8E:2F:7A:A8'

config rule
    option name 'Allow-DHCP-Renew'
    option src 'wan'
    option proto 'udp'
    option dest_port '68'
    option target 'ACCEPT'
    option family 'ipv4'

config rule
    option name 'Allow-Ping'
    option src 'wan'
    option proto 'icmp'
    option icmp_type 'echo-request'
    option family 'ipv4'
    option target 'ACCEPT'
```