OPNsense Firewall

- Sources and inspiration
  - Set Up a Fully Functioning Home Network Using OPNsense
  - Videos
    - Set up a Full Network using OPNsense (Part 1: Overview)
    - Set up a Full Network using OPNsense (Part 2: OPNsense)
    - Set up a Full Network using OPNsense (Part 3: Switch)
    - Set up a Full Network using OPNsense (Part 4: Wireless Access Point))

Firewall > Aliases

	PrivateNetworks	HomeAssistantServer	HPPrinter		AdminPCs
Enabled	Checked	Checked	Checked	Checked	Checked
Name	PrivateNetworks	HomeAssistantServer	HPPrinter	HPE1820	AdminPCs
Type	Network(s)	Host(s)	Host(s)	Host(s)	Host(s)
Categories					
Content	__lan_network, __opt1_network, __opt2_network, __opt3_network	192.168.120.8	192.168.110.8	192.168.101.2	192.168.110.16-192.168.110.24
Statistics	Unchecked	Unchecked	Unchecked	Unchecked	
Description	All my local networks	Home Assistant Server for Train software	HP Printer	PC that can manage network item	

Firewall > NAT > Port Forward

!!!! These rules are only for testing at home, from my workplace, so it is easier to create documentation.
!!! Important they must be disabled or deleted during installation.

Server	OPNsense	HPE 1820	Home Assistant
Disabled	Checked	Checked	Checked
No RDR (NOT)	Unchecked	Unchecked	Unchecked
Interface	WAN	WAN	WAN
TCP/IP Version	IPv4	IPv4	IPv4
Protocol	TCP	TCP	TCP
Destination / Invert	Unchecked	Unchecked	Unchecked
Destination	WAN address	WAN address	WAN address
Destination port range from:	HTTP	(other) 8080	(other) 8123
Destination port range to:	HTTP	(other) 8080	(other) 8123
Redirect target IP	Single host or Network	Single host or Network	Single host or Network
	192.168.101.1	192.168.101.2	192.168.120.8
Redirect target port	HTTP	HTTP	8123
Pool Options:	Default	Default	Default
Log	Unchecked	Unchecked	Unchecked

Server	OPNsense	HPE 1820	Home Assistant
Category			
Description	**Nat to OPNsense**	**Nat to HPE 1820**	**Nat to Home Assistant**
Set local tag			
Match local tag			
No XMLRPC Sync	Unchecked	Unchecked	Unchecked
NAT reflection	Use system default	Use system default	Use system default
Filter rule association	**Pass**	**Pass**	**Pass**

Firewall > Rules > WAN

Only Automatically generated rules here

Firewall > Rules > LAN

Option	DNS	NTP Time	ICMP	HomeAssistant	HPPrinter	Access only to Internet
Action	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
TCP/IP Version	**IPv4**	**IPv4**	**IPv4**	**IPv4**	**IPv4**	**IPv4**
Protocol	**TCP/UDP**	**UDP**	**ICMP**	**TCP**	**TCP/UDP**	**any**
Source	**LAN net**	**LAN net**	**LAN net**	**AdminPCs**	**AdminPCs**	
Destination / Invert	**Unchecked**	**Unchecked**	**Unchecked**	**Unchecked**	**Unchecked**	**Checked**
Destination	**LAN address**	**LAN address**	**any**	**HomeAssistantServer**	**HPPrinter**	**PrivateNetworks**
Destination port range from:	**DNS**	**NTP**	**any**	**(other) 8123**	**any**	**any**
Destination port range to:	**DNS**	**NTP**	**any**	**(other) 8123**	**any**	**any**
Description	**Allow access to DNS**	**Allow access to NTP**	**Allow ICMPv4 from LAN to all network**	**Allow access for Admins to Home Assistant server**	**Allow access to Printer for Admins PC**	**Allow access only to Internet**

Firewall > Rules > Office

Option	DNS	NTP Time	HomeAssistant	HPE1820	Access only to Internet
Action	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
TCP/IP Version	**IPv4**	**IPv4**	**IPv4**	**IPv4**	**IPv4**
Protocol	**TCP/UDP**	**UDP**	**TCP**	**TCP**	**any**
Source	**Office net**	**Office net**	**AdminPCs**	**AdminPCs**	**Office net**

Option	DNS	NTP Time	HomeAssistant	HPE1820	Access only to Internet
Destination / Invert	Unchecked	Unchecked	Unchecked	Unchecked	Checked
Destination	Office address	Office address	HomeAssistantServer	HPE1820	PrivateNetworks
Destination port range from:	DNS	NTP	(other) 8123	HTTP	any
Destination port range to:	DNS	NTP	(other) 8123	HTTP	any
Description	Allow access to DNS	Allow access to NTP	Admin Accesss to Home Assistant Server	Admin Accesss to HPE 1820	Allow access only to Internet

Firewall > Rules > Train

Option	DNS	NTP Time	Home Assistatnt
Action	Pass	Pass	Pass
TCP/IP Version	IPv4	IPv4	IPv4
Protocol	TCP/UDP	UDP	any
Source	LAN net	LAN net	192.168.120.8
Destination / Invert	Unchecked	Unchecked	Checked
Destination	LAN address	LAN address	PrivateNetworks
Destination port range from:	DNS	NTP	any
Destination port range to:	DNS	NTP	any
Description	Allow access to DNS	Allow access to NTP	Allow HA Server access only to Internet

Firewall > Rules > IPCam