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	**Train net**	**Train net**	**HomeAssistantServer**
Destination / Invert	**Unchecked**	**Unchecked**	**Checked**
Destination	**Train address**	**Train 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