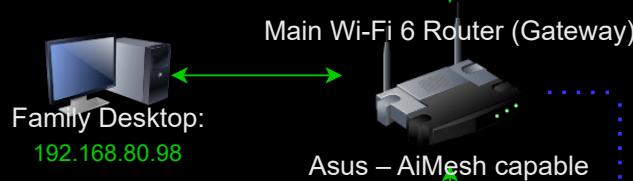**Logical Network Topology**

Cabling (Ethernet)

Guest / IoT Wi-Fi 6

Virtual Network (vSwitch Links)

Internet/WAN

Main LAN: 192.168.80.0/24

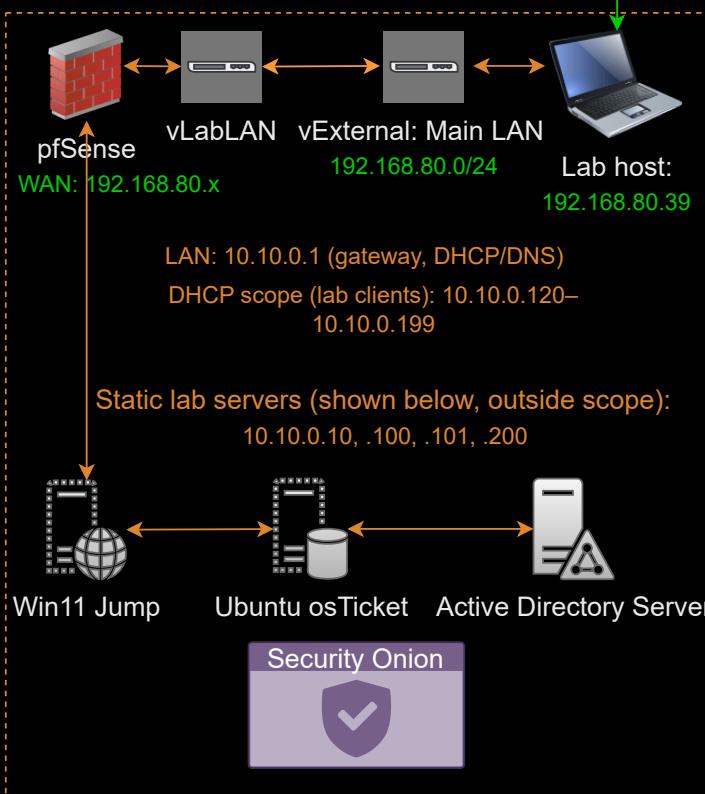Gateway: 192.168.80.1

DHCP: 192.168.80.2–254

ISP Modem (Bridge Mode)

Guest LAN: 192.168.112.0/24

SSID: Tron7.1 (Wi-Fi 6)

Isolated from Main LAN

Main Wi-Fi 6 Router (Gateway)

Family Desktop:
192.168.80.98

Asus – AiMesh capable
192.168.80.1

Front Door:
192.168.112.7

Garage:
192.168.112.18

Xbox

Stereo receiver:
192.168.80.202

LAN Switch:

192.168.80.248

Driveway:
192.168.112.14

Washing machine:
192.168.112.251

Virtual Lab: 10.10.0.0/24

pfSense
WAN: 192.168.80.x

vLabLAN

vExternal: Main LAN
192.168.80.0/24

Lab host:
192.168.80.39

Main TV:
192.168.112.248

LAN: 10.10.0.1 (gateway, DHCP/DNS)

DHCP scope (lab clients): 10.10.0.120–
10.10.0.199

Static lab servers (shown below, outside scope):
10.10.0.10, .100, .101, .200

Win11 Jump

Ubuntu osTicket

Active Directory Server

Security Onion

*Device models and
IPs masked for
privacy*

LAN Extension / Wi-Fi 6

Asus AiMesh node (Ethernet backhaul)

Office Desktop:
192.168.80.224