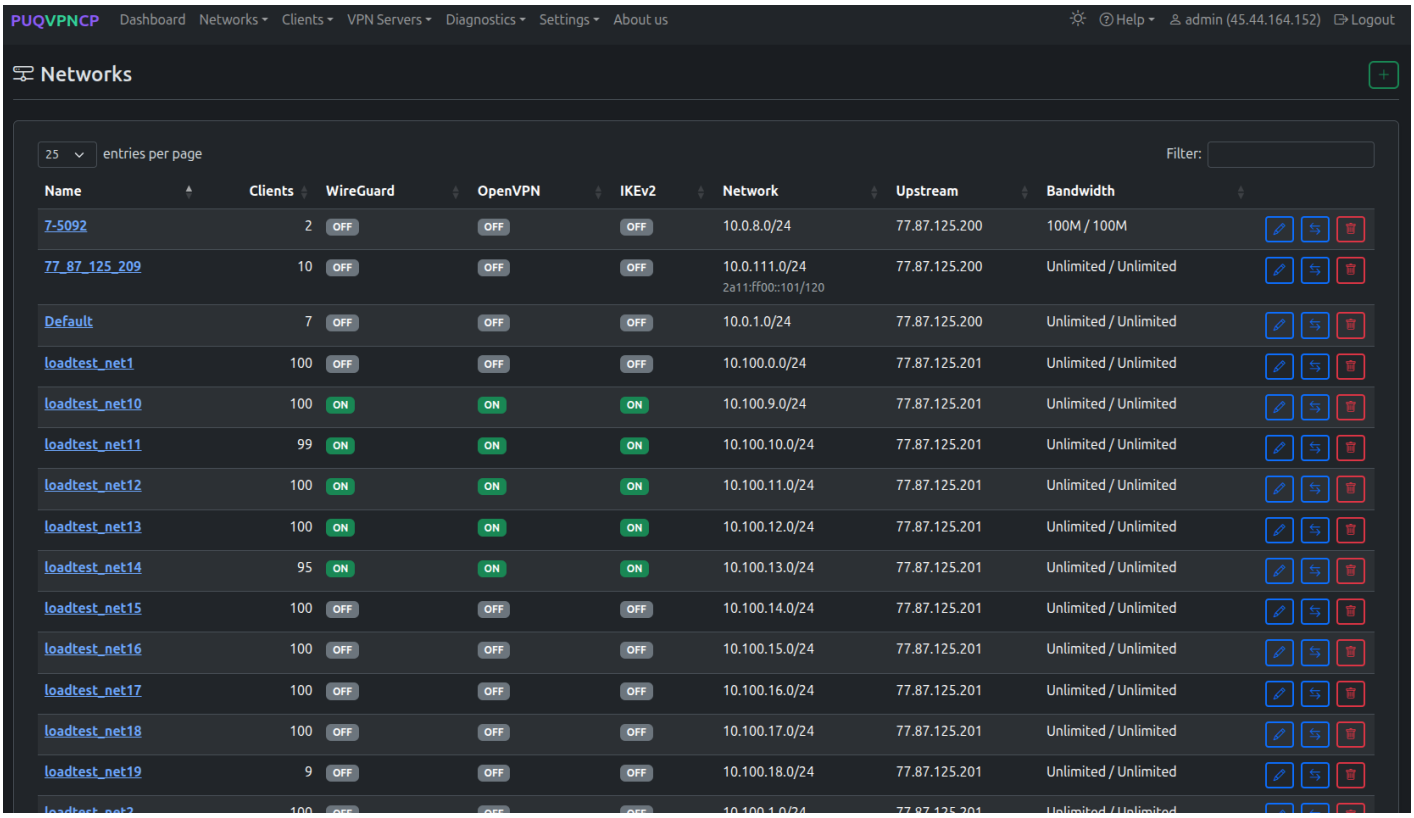
05. Networks

Networks are the core organizational unit in PUQVPNCP. Each network defines a VPN subnet with its own protocol settings, firewall rules, bandwidth limits, and upstream routing.

Networks List

Navigate to **Networks > List of networks** to see all configured networks.



Networks list — shows protocols, IP, upstream, and bandwidth for each network

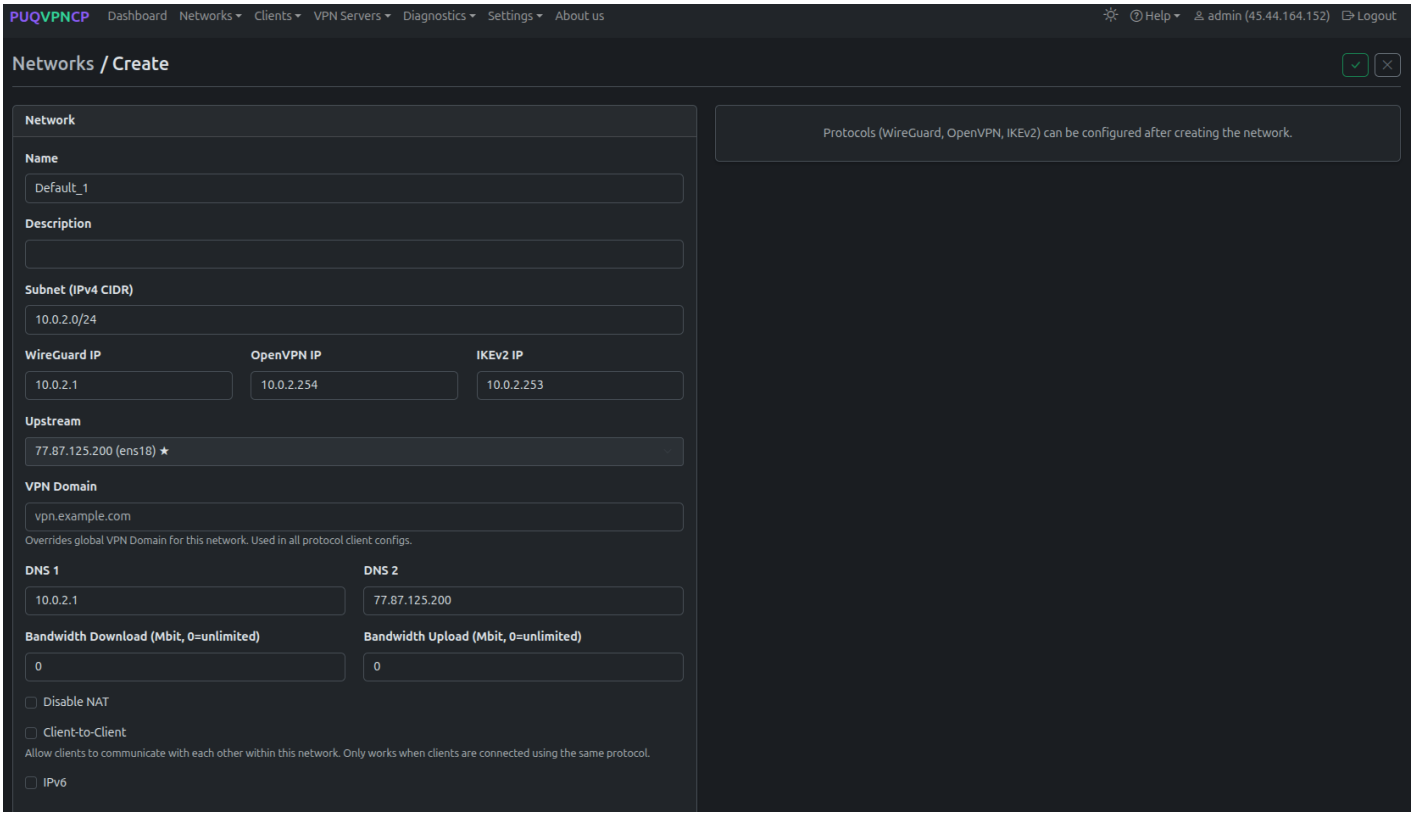
The table displays:

Column	Description
Name	Network identifier
Clients	Number of client accounts
WireGuard / OpenVPN / IKEv2	Protocol enabled status (ON/OFF)
Network	Subnet CIDR

Column	Description
IP	Server IP for the network
Upstream	Internet exit point (direct IP or WireGuard tunnel)
Bandwidth	Download/Upload limits in Mbit

Creating a Network

Navigate to **Networks > Add network** or click the **+** button.



Create a new network

Required Fields

Field	Description	Example
Name	Unique network name (alphanumeric + underscore)	`office_vpn`
Subnet (IPv4 CIDR)	Network subnet	`10.0.0.0/24`
WireGuard IP	Server IP for WireGuard interface	`10.0.0.1`
OpenVPN IP	Server IP for OpenVPN interface	`10.0.0.254`

Field	Description	Example
IKEv2 IP	Server IP for IKEv2	`10.0.0.253`

Optional Fields

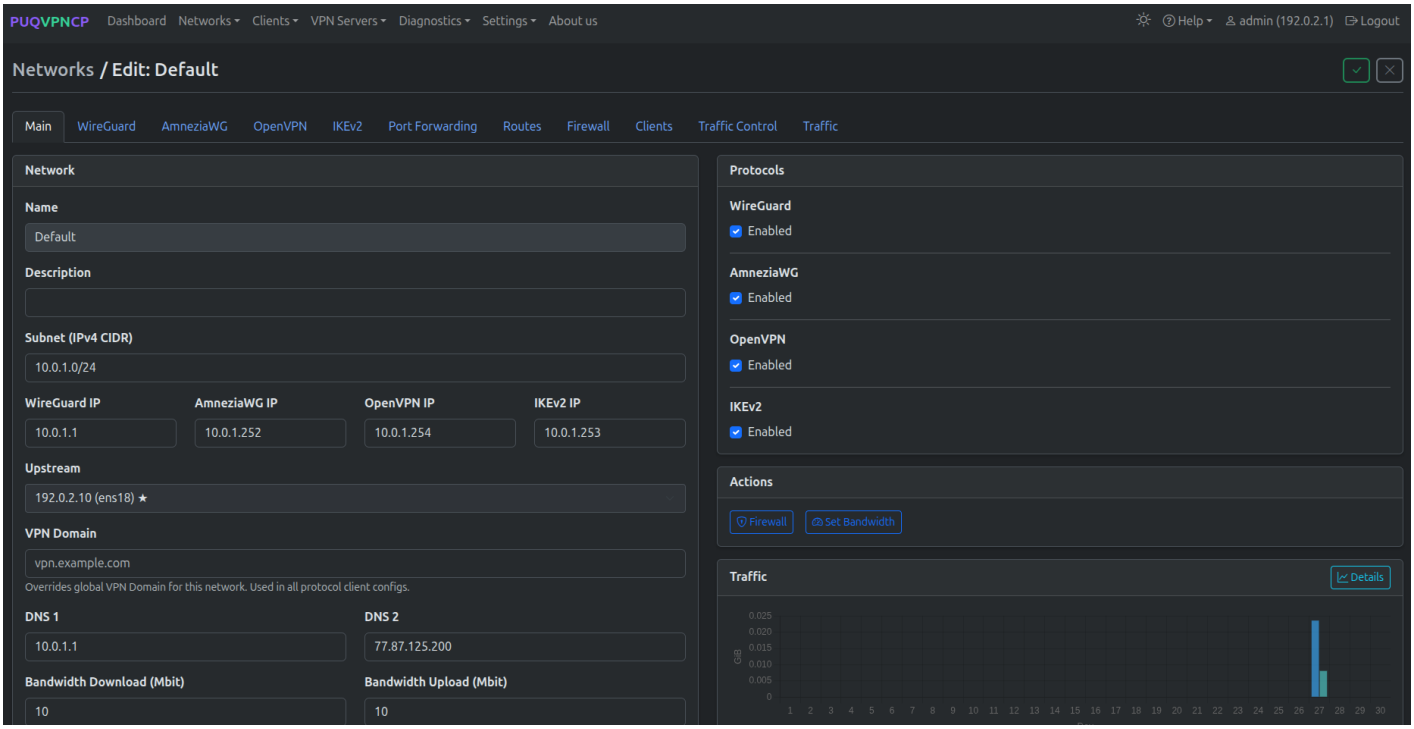
Field	Description
Description	Free-text description
Upstream	Select internet exit: server IP (direct) or WireGuard upstream tunnel
VPN Domain	Override the global VPN domain for this network
DNS 1 / DNS 2	DNS servers pushed to VPN clients
Bandwidth Download / Upload	Network-wide bandwidth limit (Mbit, 0 = unlimited)
Disable NAT	Disable SNAT for this network (for bridged setups)
Client-to-Client	Allow clients within the same network to communicate
IPv6	Enable IPv6 dual-stack

> **Note:** VPN protocols (WireGuard, AmneziaWG, OpenVPN, IKEv2) can be enabled after creating the network.

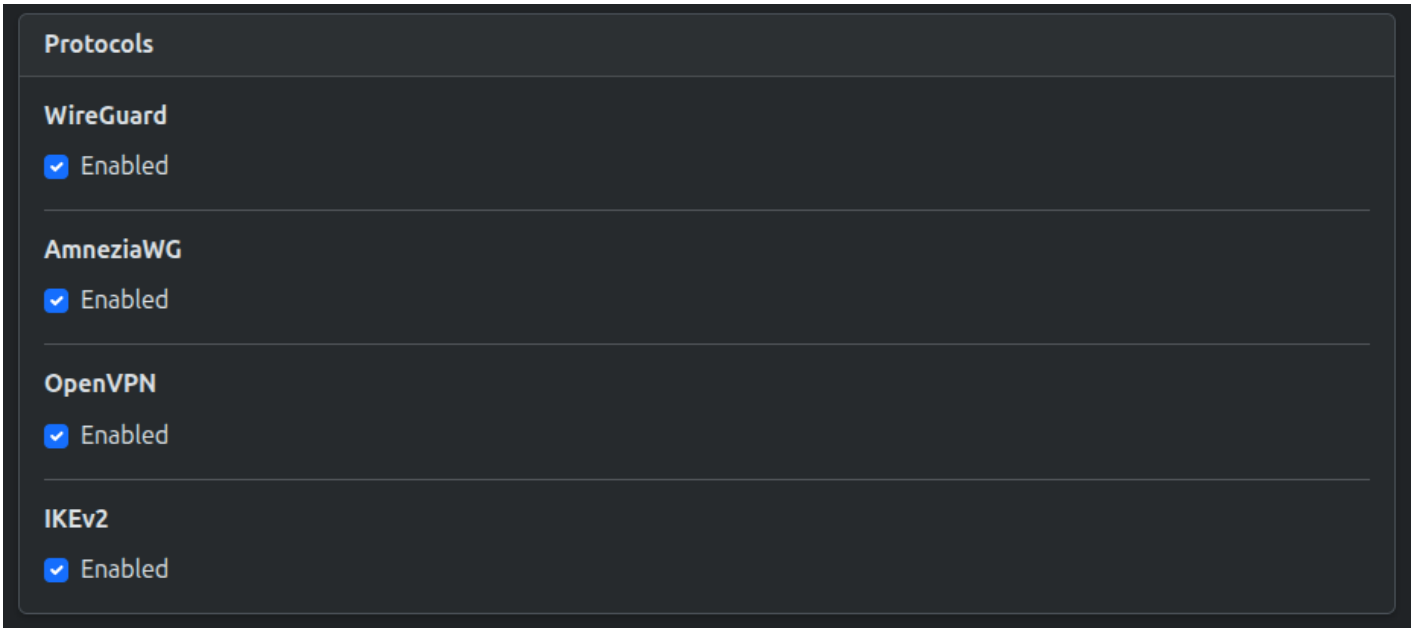
Editing a Network

Click the edit button on any network to open the tabbed editor.

Main Tab



Network edit — Main tab with protocols, actions, and traffic overview

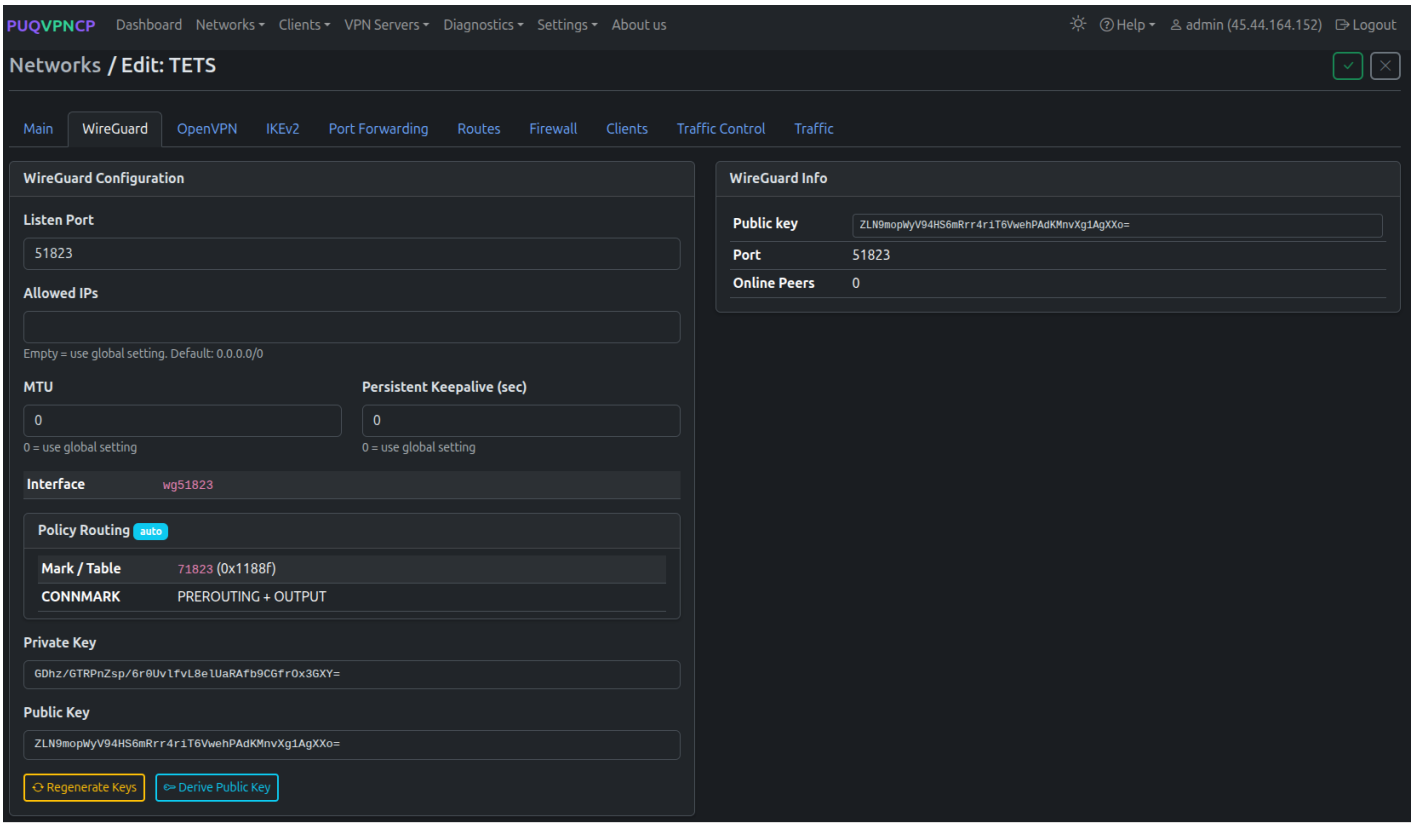


Protocols selector — WireGuard, AmneziaWG, OpenVPN, IKEv2

The Main tab shows:

- **Network settings** (left) — all fields from creation, plus the Upstream selector
- **Protocols** (right) — checkboxes to enable/disable WireGuard, AmneziaWG, OpenVPN, IKEv2
- **Actions** — Firewall and Set Bandwidth buttons
- **Traffic** — monthly traffic chart with download/upload totals

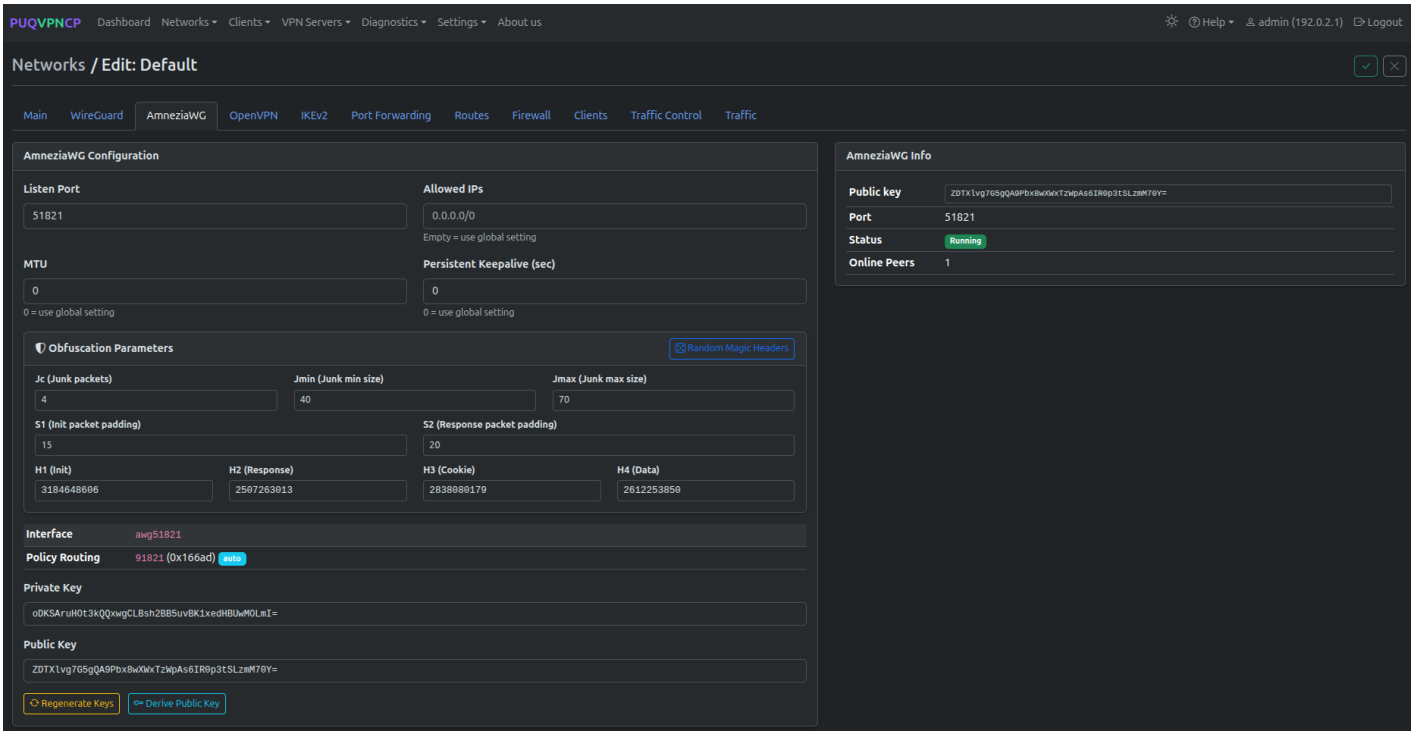
WireGuard Tab



Network edit — WireGuard tab

Field	Description
Listen Port	WireGuard UDP port for this network
Allowed IPs	Allowed IPs for peers (empty = use global `0.0.0.0/0`)
MTU	Tunnel MTU (0 = use global setting)
Persistent Keepalive	Keepalive interval in seconds (0 = use global)
Interface	Auto-generated WireGuard interface name (e.g., `wg51823`)
Policy Routing	Mark/Table values and CONNMARK rules (auto-configured)
Private / Public Key	WireGuard key pair. Can be regenerated or derived.

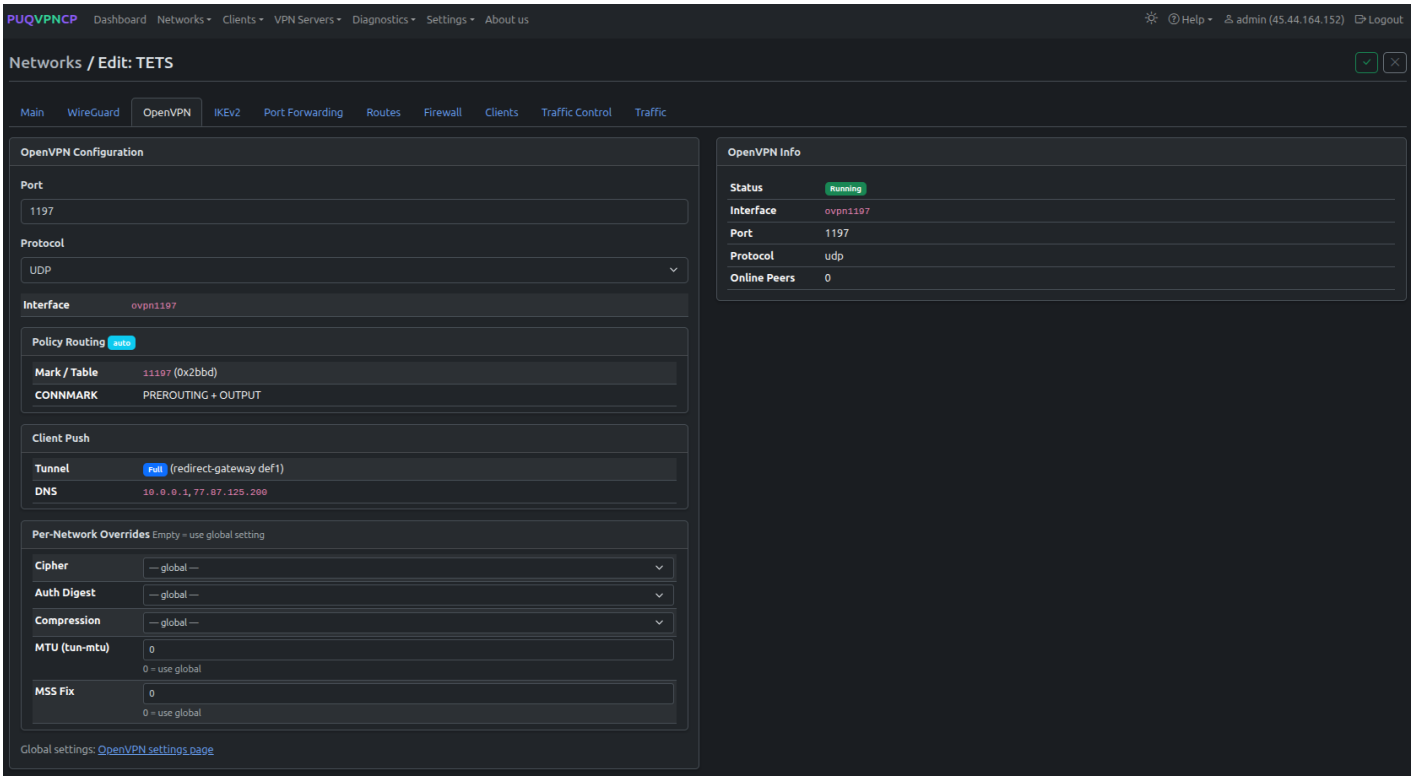
AmneziaWG Tab



Network edit — AmneziaWG tab with obfuscation parameters and interface info

Field	Description
Listen Port	AmneziaWG UDP port for this network
Allowed IPs	Allowed IPs for peers (empty = use global `0.0.0.0/0`)
MTU	Tunnel MTU (0 = use global setting)
Persistent Keepalive	Keepalive interval in seconds (0 = use global)
Interface	Auto-generated AmneziaWG interface name (e.g., `awg51821`)
Magic Headers (H1–H4)	Custom or randomized packet headers to bypass DPI
Junk Packet Controls	Jc count, Jmin/Jmax size range, and S1/S2 junk sizes
Private / Public Key	Key pair for AmneziaWG encryption

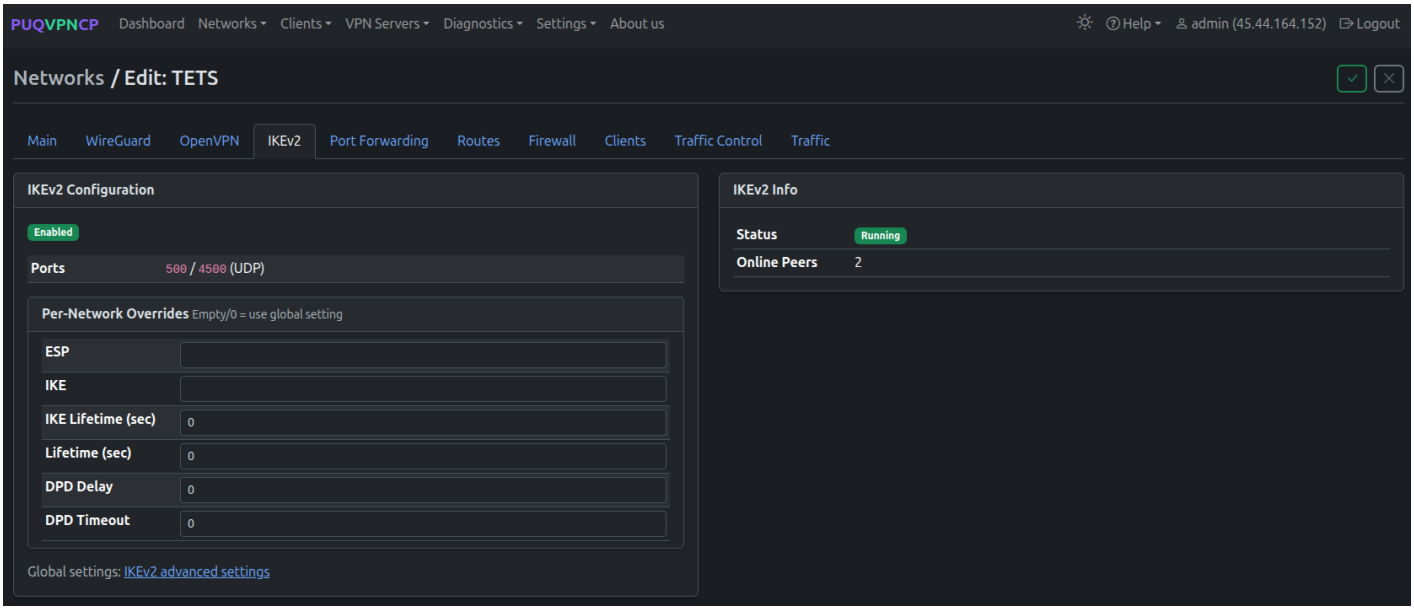
OpenVPN Tab



Network edit — OpenVPN tab

Field	Description
Port	OpenVPN port for this network
Protocol	UDP or TCP
Interface	Auto-generated interface name (e.g., `ovpn1197`)
Policy Routing	Mark/Table and CONNMARK (auto-configured)
Client Push	Full or split tunnel, DNS settings
Per-Network Overrides	Cipher, Auth Digest, Compression, MTU, MSS Fix

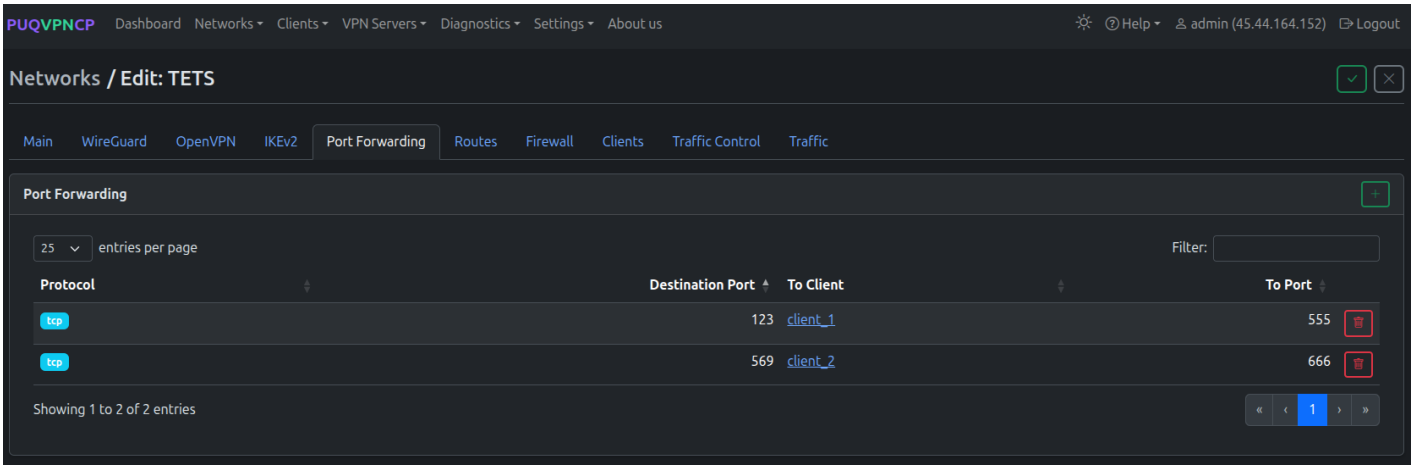
IKEv2 Tab



Network edit — IKEv2 tab

Field	Description
Enabled	IKEv2 enabled for this network
Ports	500 / 4500 UDP (standard IPsec)
Per-Network Overrides	ESP, IKE proposals, lifetimes, DPD settings

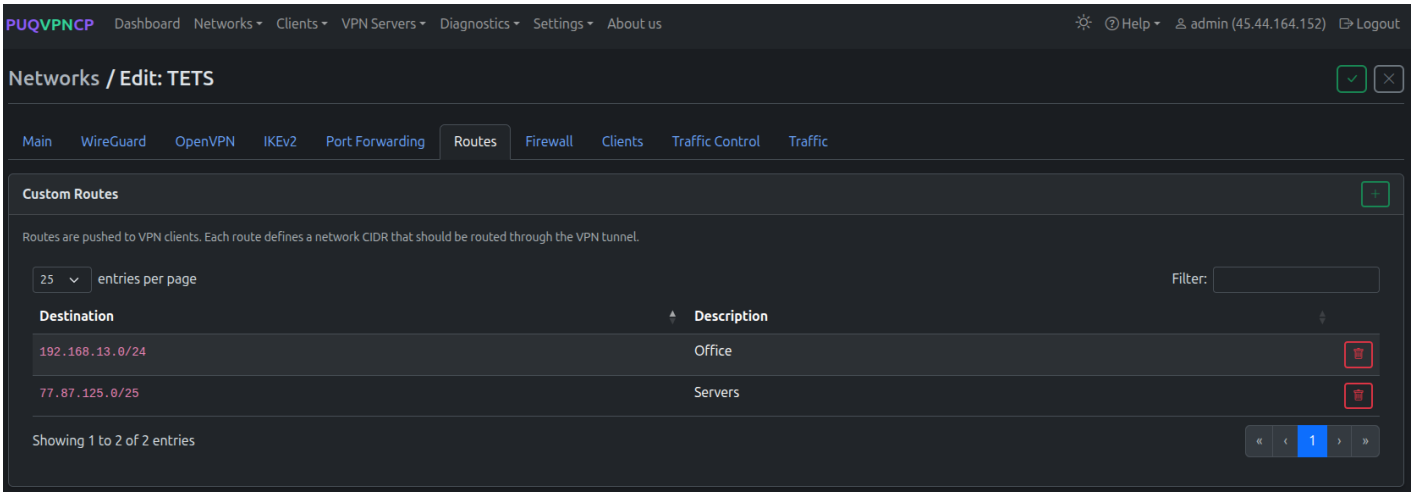
Port Forwarding Tab



Network edit — Port Forwarding tab

Create DNAT rules to forward external ports to specific VPN clients. Each rule maps an external port to a client IP and destination port.

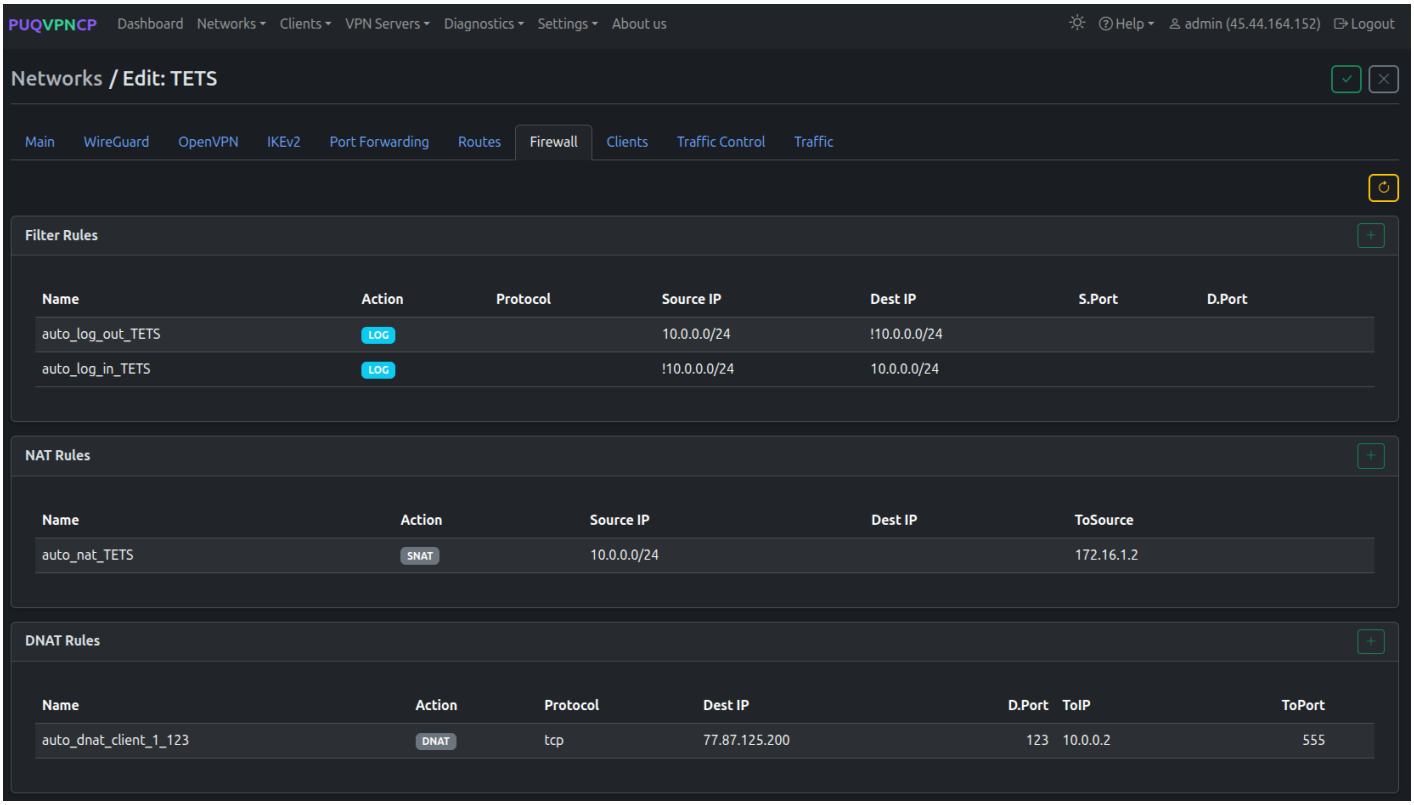
Routes Tab



Network edit — Routes tab

Define custom routes that are pushed to VPN clients. Each route specifies a destination CIDR and description. Useful for split-tunnel configurations.

Firewall Tab



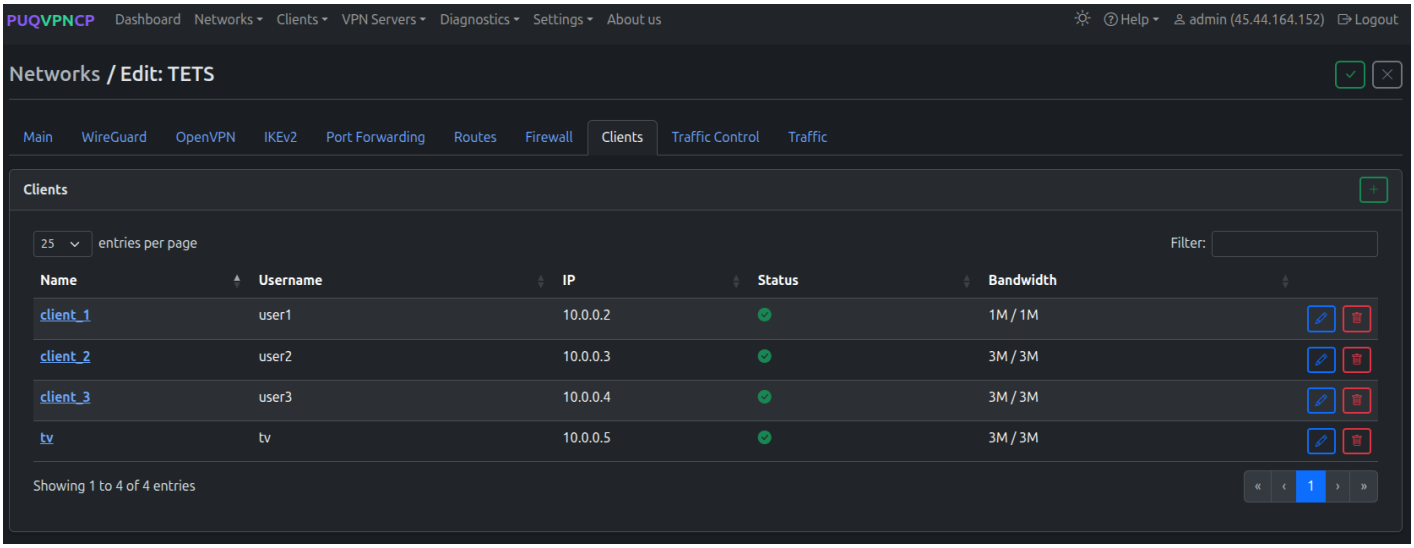
Network edit — Firewall tab

Per-network firewall rules organized by type:

- **Filter Rules** — traffic logging and filtering
- **NAT Rules** — SNAT rules (auto-generated for upstream)
- **DNAT Rules** — port forwarding rules (auto-generated from Port Forwarding tab)
- **Mangle Rules** — traffic marking for TC and policy routing (auto-generated)

Network edit — Mangle rules for traffic control

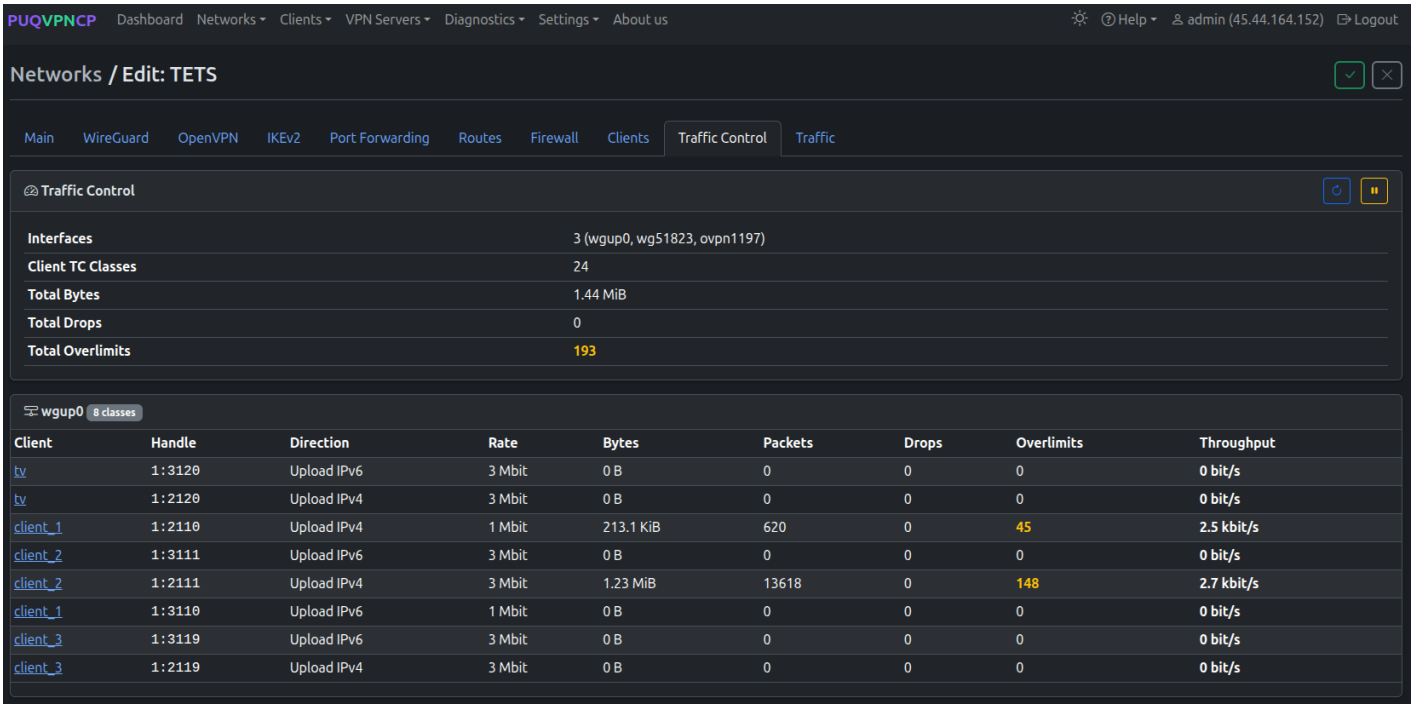
Clients Tab



Network edit — Clients tab

Lists all clients in this network with their name, username, IP, status, and bandwidth.

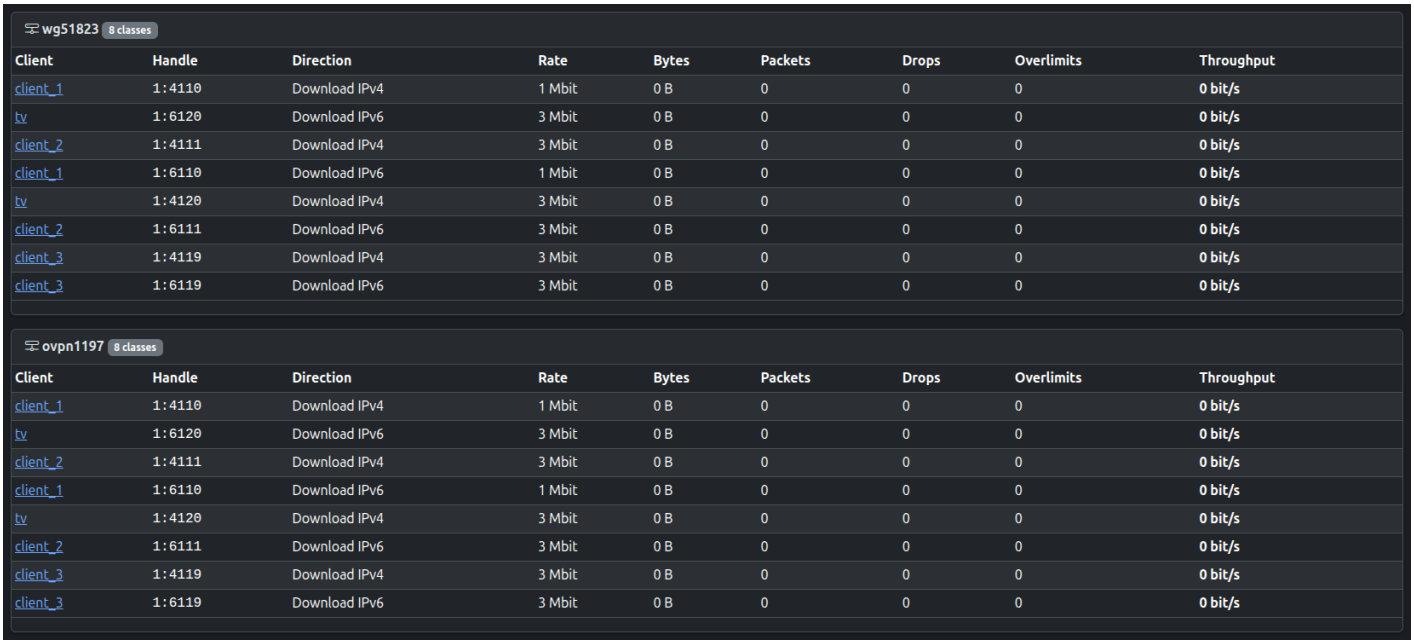
Traffic Control Tab



Network edit — Traffic Control tab (upload classes)

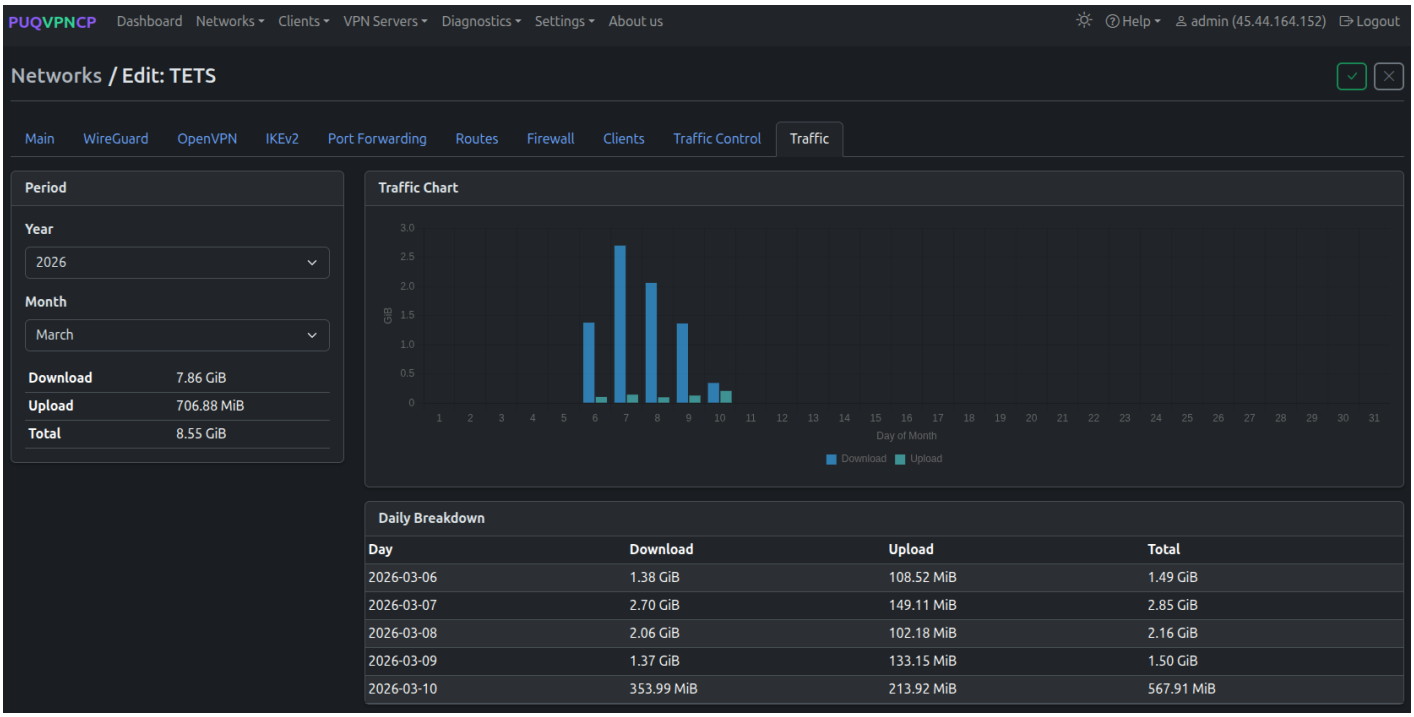
Real-time traffic control statistics showing TC classes for each client and direction:

- **Interfaces** — WireGuard, AmneziaWG, OpenVPN, and upstream interfaces
- **Per-client rows** — Handle, Direction, Rate, Bytes, Packets, Drops, Overlimits, Throughput



Traffic Control — download classes

Traffic Tab



Network edit — Traffic tab with monthly chart and daily breakdown

Monthly traffic statistics with:

- **Traffic Chart** — daily download/upload bar chart
- **Period selector** — year and month
- **Download / Upload / Total** — aggregated numbers
- **Daily Breakdown** — per-day traffic table

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