02. Installation

System Requirements

Requirement	Minimum
OS	Debian 12/13 or Ubuntu 22.04+ (amd64)
CPU	1 core (2+ recommended for 500+ clients)
RAM	512 MB (2+ GB recommended)
Disk	1 GB free space
Network	Public IPv4 address, root access

Required Packages

The panel automatically manages its dependencies, but the following packages must be available in the system repositories:

Category	Packages
VPN Protocols	`wireguard`, `wireguard-tools`, `amneziawg-dkms`, `amneziawg-tools`, `openvpn`, `easy-rsa`, `strongswan`, `strongswan-pki`
Network & Firewall	`iproute2`, `iptables`, `ipset`
DNS	`bind9`, `bind9-utils`
Monitoring	`rsyslog`, `telegraf`
Security	`openssl`
Utilities	`procps`, `uuid-runtime`, `bash`, `grep`, `gawk`

> **Note:** You can verify all dependencies after installation using **Settings > Environment** page.

Installation

Step 1: Download

Download the latest `.deb` package:

```
wget https://puqvpncp.com/download/puqvpncp_latest_amd64.deb
```

> All versions are available at: https://puqvpncp.com/download/

Step 2: Install Dependencies

```
apt update && apt install -y wireguard wireguard-tools openvpn easy-rsa \
  strongswan strongswan-pki iproute2 iptables ipset \
  bind9 bind9-utils rsyslog telegraf openssl \
  procps uuid-runtime bash grep gawk
```

Optional: AmneziaWG (Anti-Censorship DPI Bypass)

To enable AmneziaWG, install the kernel module and tools for your distribution:

Debian (11 / 12 / 13):

> On Debian, compiling the kernel module via DKMS requires kernel headers (`linux-headers-$(uname -r)`) and build tools. Install them before or alongside the module:

```
apt-get update && apt-get install -y build-essential dkms linux-headers-$(uname -r)
mkdir -p /etc/apt/keyrings && curl -fsSL
"https://keyserver.ubuntu.com/pks/lookup?op=get&search=0x75C9DD72C799870E310542E24166F2C257290828
| gpg --dearmor --yes -o /etc/apt/keyrings/amnezia.gpg
echo "deb [signed-by=/etc/apt/keyrings/amnezia.gpg]
https://ppa.launchpadcontent.net/amnezia/ppa/ubuntu noble main" >
```

```
/etc/apt/sources.list.d/amnezia.list
apt-get update && apt-get install -y amneziawg-dkms amneziawg-tools
modprobe amneziawg
```

Ubuntu (22.04 / 24.04 LTS):

```
add-apt-repository -y ppa:amnezia/ppa
apt-get update && apt-get install -y amneziawg-dkms amneziawg-tools
modprobe amneziawg
```

Alternative on Ubuntu (without `add-apt-repository`):

```
mkdir -p /etc/apt/keyrings && curl -fsSL
"https://keyserver.ubuntu.com/pks/lookup?op=get&search=0x75C9DD72C799870E310542E24166F2C257290828
| gpg --dearmor --yes -o /etc/apt/keyrings/amnezia.gpg
echo "deb [signed-by=/etc/apt/keyrings/amnezia.gpg]
https://ppa.launchpadcontent.net/amnezia/ppa/ubuntu noble main" >
/etc/apt/sources.list.d/amnezia.list
apt-get update && apt-get install -y amneziawg-dkms amneziawg-tools
modprobe amneziawg
```

Verify AmneziaWG installation:

```
dkms status            # Should output: amneziawg/..., ...: installed
lsmod | grep amneziawg # Should display loaded kernel module
awg --version          # Should display awg tools version
```

> **Tip:** If the kernel module failed to compile or after a kernel update, run:
>
> ```
> apt-get install -y build-essential dkms linux-headers-$(uname -r) && dpkg-
> reconfigure amneziawg-dkms && modprobe amneziawg
> ```

Step 3: Install PUQVPNCP

```
dpkg -i puqvpncp_latest_amd64.deb
```

This will:

- Install the `puqvpncp` binary to `/usr/sbin/puqvpncp`

- Create the configuration directory `/etc/puqvpncp/`
- Create the data directory `/usr/local/puqvpncp/`
- Install and enable the `puqvpncp` systemd service

Step 4: Start the Service

```
systemctl start puqvpncp
```

Step 5: Access the Web Interface

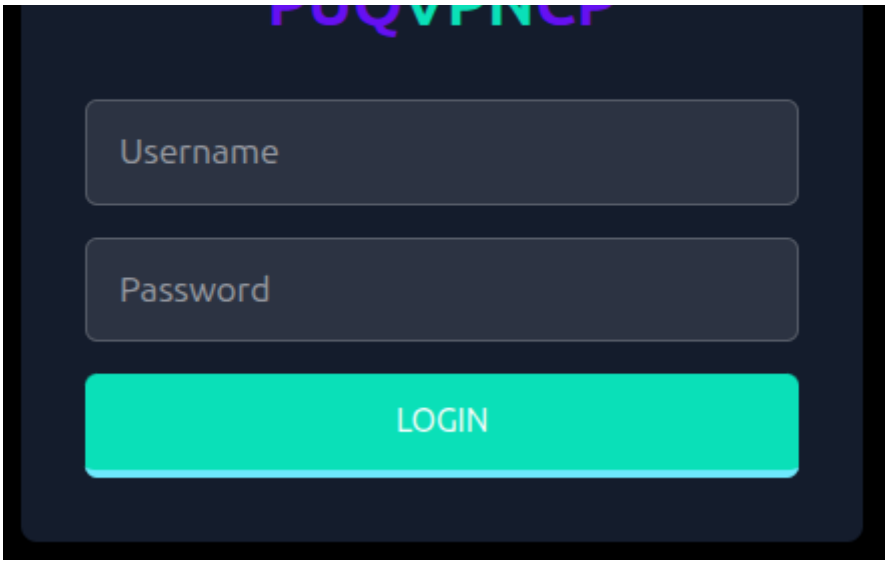
Open your browser and navigate to:

```
http://<your-server-ip>:8098
```

Default credentials:

Field	Value
Username	`admin`
Password	`admin`

> **Important:** Change the default password immediately after first login via **Settings > System Users**.



Login page -- enter your username and password

Configuration File

The main configuration file is located at `/etc/puqvpncp/puqvpncp.conf`. It is created automatically on first start with default values. Format: `Key=Value`, one per line. Lines starting with `#` are comments.

```
# The port on which the WWW server will be set up. (Default: 8098)
WebPort=8098

# The IPv4 or IPv6 on which the WWW server will be set up. (Default: 0.0.0.0)
WebIP=0.0.0.0

# The IPv4 or IPv6 address from which you can login to the web console.
# Supports multiple IPs delimited by comma. (Default: 0.0.0.0)
AllowedWebIP=0.0.0.0

# Directory for log files (Default: /var/log/puqvpncp/)
LogDir=/var/log/puqvpncp/

# Directory for data files (Default: /usr/local/puqvpncp/)
DataDir=/usr/local/puqvpncp/
```

```
# SSL certificate support Let's Encrypt yes/no (Default: no)
# If this option is enabled, then the panel is accessible on the standard port 443.
# The port in the non-ssl protocol is not serviced
LetsEncrypSSL=no

# Domain for SSL certificate generation
# Be sure to check that the domain resolves the IP address of this server
Domain=

# Remove tabs in the Wireguard client configuration.
# Sometimes necessary to support non-official Wireguard clients.
DeleteTabsFromConfig=no

# Session timeout in minutes (Default: 720)
SessionTimeout=720

# Log level: INFO, WARN, ERROR, DEBUG (Default: INFO)
LogLevel=INFO

# Trusted proxy IPs (comma-separated). Leave empty for default Gin behavior.
# Set to 'none' to trust no proxies.
TrustedProxies=

# HTTP request timeout in seconds (Default: 30)
HttpTimeout=30
```

Parameter	Default	Description
WebPort	`8098`	Web interface port. Ignored when `LetsEncrypSSL=yes` (uses 443)
WebIP	`0.0.0.0`	Listen address (IPv4 or IPv6)
AllowedWebIP	`0.0.0.0`	Restrict access to specific IPs (comma-separated). `0.0.0.0` = allow all
LogDir	`/var/log/puqvpncp/`	Log files directory
DataDir	`/usr/local/puqvpncp/`	Application data directory (networks, clients, configs)
LetsEncrypSSL	`no`	Enable Let's Encrypt SSL (`yes`/`no`). Requires `Domain` to be set
Domain	(empty)	Domain for SSL certificate. Must resolve to this server's IP

Parameter	Default	Description
DeleteTabsFromConfig	`no`	Remove tabs from WireGuard client configs (for non-official clients)
SessionTimeout	`720`	Web session timeout in minutes (12 hours)
LogLevel	`INFO`	Logging verbosity: `DEBUG`, `INFO`, `WARN`, `ERROR`
TrustedProxies	(empty)	Comma-separated proxy IPs. `none` = trust no proxies
HttpTimeout	`30`	HTTP request timeout in seconds

> After enabling `LetsEncrypSSL=yes` and setting `Domain`, restart the service. The web interface switches to port **443** (HTTPS) and obtains a certificate automatically.

Update

Step 1: Download the New Version

```
wget https://puqvpncp.com/download/puqvpncp_latest_amd64.deb
```

Step 2: Stop the Service

```
systemctl stop puqvpncp
```

> **Important:** The service must be stopped before updating. The binary cannot be overwritten while it is running.

Step 3: Install the Update

```
dpkg -i puqvpncp_latest_amd64.deb
```

Step 4: Start the Service

```
systemctl start puqvpncp
```

Your configuration and data are preserved during updates.

Uninstallation

```
systemctl stop puqvpncp
apt remove puqvpncp
```

> **Note:** Uninstalling the package does **not** remove your configuration (`/etc/puqvpncp/`) or data (`/usr/local/puqvpncp/`). Remove them manually if needed.

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