AirTraffic
CLI Network Tool

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Cross-platform CLI for:

- **Monitoring** network usage per application (live & historical)
- **Blocking / allowing** apps from using the network

Platforms: macOS, Linux, Windows
Stack: Python 3.7+, psutil, SQLite

Features

1. Monitor Network Usage
- Real-time dashboard with live statistics
- Historical usage tracking since any point in time
- Per-application bandwidth breakdown

2. Block/Allow Applications
- Block specific apps or all running apps
- Allow previously blocked apps
- List blocked and allowed applications

Module	What it does
cli.py	Handles commands you type
daemon.py	Runs in background, checks network every 60s
monitor.py	Tracks which app uses how much data
database.py	Stores and retrieves usage history
firewall.py	Blocks or allows apps from using internet

Monitoring Network Usage:

- Background daemon checks network every 60s using psutil
- Tracks bytes sent/received per process (maps PIDs to apps)
- Stores historical data in SQLite database
- Live mode: real-time monitoring without database
- Historical mode: queries database and aggregates usage

Blocking Applications:

- **macOS:** Uses socketfilterfw (Application Firewall) – blocks at kernel level
- **Linux:** Uses iptables/nftables with command matching – automatic fallback
- **Windows:** Uses netsh advfirewall to create inbound/outbound block rules
- All methods block at OS level – apps cannot bypass
- Works reliably across all platforms with improved error handling

Installation

Install:

```
pip install -e .
sudo airtraffic install   # Starts background daemon
```

Uninstall:

```
sudo airtraffic uninstall   # Stops daemon & removes service
```

Monitor Network Usage:

- sudo airtraffic live – Real-time dashboard
- airtraffic since today – Usage since today 12:00 AM
- airtraffic since month – Usage since first of month 12:00 AM
- airtraffic since "17:01:2026 14:30:00" – Custom date/time (dd:mm:yyyy hh:mm:ss)

Block/Allow Apps:

- sudo airtraffic block Application – Block app from accessing network
- sudo airtraffic allow Application – Allow app to access network
- sudo airtraffic block all – Block all running apps
- sudo airtraffic allow all – Allow all blocked apps
- airtraffic blocked – List blocked applications
- airtraffic allowed – List allowed applications

Summary

AirTraffic is a cross-platform CLI tool for monitoring and controlling network access per application.

- Monitor network usage in real-time or historically
- Block applications from accessing the network without closing them
- Works on macOS, Linux, and Windows using native OS firewalls
- Background daemon tracks usage continuously
- Simple commands for complete network control