

# AirTraffic

## CLI Network Tool

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# What is AirTraffic?

**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

## Monitor Network Usage

- Live dashboard with airtraffic live
- Historical usage with airtraffic since today/month

## Block or Allow Apps

- Control individual apps or all apps at once
- Commands: block, allow, blocked, allowed

## Background Service

- Automatically collects stats every 60 seconds
- Easy install and uninstall commands

# Architecture

<b>Module</b>	<b>What it does</b>
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

# How blocking works

## **Windows:**

- Uses built-in firewall to block apps
- Block = add firewall rule, Allow = remove firewall rule

## **macOS / Linux:**

- No built-in per-app firewall, so we prevent the app from running
- Block = kill app + remove permission to run
- Allow = restore permission to run

*Note: Needs admin/sudo to modify firewall or file permissions*

# How it works

## **Background daemon (after install):**

- Checks network usage every 60 seconds
- Figures out which app used how much data
- Saves everything to a database

## **When you run “airtraffic since today”:**

- Reads the database
- Adds up all data since midnight
- Shows you the totals per app

## **When you run “airtraffic live”:**

- Monitors network in real-time (no database needed)
- Updates the screen every few seconds

# Install & usage

## Install:

```
pip install -e .  
airtraffic install (sudo / Admin)
```

## Commands:

- airtraffic live – Shows real-time network usage
- airtraffic since today | month – Shows historical usage
- sudo airtraffic block <app> – Blocks app from network
- sudo airtraffic allow <app> – Allows app to use network
- airtraffic blocked | allowed – Lists blocked/allowed apps
- airtraffic uninstall – Removes background service

## Summary

- AirTraffic lets you see which apps use your internet and control their access - all from one simple tool.
- A background service saves your network history so you can check past usage anytime.
- Works on all platforms: Windows blocks apps using its firewall; Mac/Linux stop apps from running.
- One-time setup makes the background service start automatically when you turn on your computer.