bandwhich

Bandwidth by process

CONCEPTS

bandwhich shows which process, connection and remote host is using bandwidth right now. It needs packet capture and /proc access, so run it with sudo or grant capabilities once.

Packets sniffed on interface
↓ match
Socket port in /proc or lsof
↓ owner
Process name, PID, remote host

How traffic gets a name

Remote hostnames come from background reverse DNS and appear a moment after the IP. Use -n for raw IPs.

Process mapping uses /proc on Linux, lsof on macOS and the Windows API on Windows. Windows may need npcap installed.

Upstream is in passive maintenance: fixes only, no new features.

IN THE TUI

Tab
Rotate which table comes first

Space
Pause or resume the display

q Quit

Ctrl + **C** Quit (interrupt)

Only q, Space and Tab are handled by the interface; there is no in-app help key, so check bandwhich --help for options.

The tables shrink to fit your window. Make the terminal taller to see more rows.

RUN

sudo bandwhich
Start monitoring all interfaces

sudo env "PATH=$PATH" bandwhich
Keep your PATH under sudo

bandwhich -i *<if>*
Listen on one interface

bandwhich -n
Do not resolve IPs to hostnames

RUN (cont.)

bandwhich -s
Show DNS queries

bandwhich -d *<ip>*
Use this DNS server for lookups

bandwhich -r
Machine-friendlier text output

bandwhich -V
Print version

bandwhich -h
Short help (--help for detail)

VIEWS AND UNITS

bandwhich -p
Show processes table only

bandwhich -c
Show connections table only

bandwhich -a
Show remote addresses table only

bandwhich -t
Show cumulative totals

bandwhich -u bin-bytes
Bytes, powers of 1024 (default)

bandwhich -u bin-bits
Bits, powers of 1024

VIEWS AND UNITS (cont.)

bandwhich -u si-bytes
Bytes, powers of 1000

bandwhich -u si-bits
Bits, powers of 1000 (like ISP speeds)

bandwhich -p -t
Combine view and totals

PERMISSIONS

sudo bandwhich
Simplest: run as root

sudo setcap cap_sys_ptrace, cap_dac_read_search, cap_net_raw, cap_net_admin+ep $(command -v bandwhich)
Grant capabilities once (Linux)

getcap $(command -v bandwhich)
Check granted capabilities

sudo setcap -r $(command -v bandwhich)
Remove capabilities

Reinstalling or upgrading replaces the binary and drops its file capabilities. Run setcap again.

LOGGING AND DEBUG

bandwhich -v
More log output (repeat for more)

bandwhich -q
Less log output (repeat for less)

bandwhich --log-to *<file>*
Write debug log to a file

bandwhich -vv --log-to *<file>*
Verbose debug log to a file

RECIPES

Which program is eating my uplink

```
sudo bandwhich -i eth0 -p -n
```

Allow without sudo (Linux)

```
sudo setcap cap_sys_ptrace,
cap_dac_read_search,
cap_net_raw,cap_net_admin+ep
$(command -v bandwhich)
bandwhich
```

Watch DNS chatter

```
sudo bandwhich -s -c
```

Debug a failing start

```
sudo bandwhich -vv --log-
to /tmp/bw.log
# read /tmp/bw.log
afterwards
```