netstat Cheatsheet

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Quick reference for listing network connections, listening ports, routes, interface counters, and protocol statistics with netstat

The `netstat` command shows network connections, listening ports, routing tables, interface counters, and protocol statistics on Linux. This cheatsheet covers the most useful `netstat` flags and common troubleshooting patterns.

Basic Syntax

Core `netstat` command forms and output controls.

`netstat`	Show active non-listening sockets
`sudo netstat -a`	Show all sockets
`sudo netstat -n`	Show numeric addresses and ports
`sudo netstat -p`	Show PID and program name where available
`sudo netstat -c`	Refresh output every second

Listening Ports

Find services that are accepting local connections.

`sudo netstat -tuln`	Show TCP and UDP listening sockets
`sudo netstat -tulnp`	Show listening sockets with PID and process name
`sudo netstat -tnlp`	Show listening TCP sockets only
`sudo netstat -unlp`	Show listening UDP sockets only
`sudo netstat -tulnp | grep ':80'`	Find the process listening on port 80

Connections and TCP States

Inspect active connections and common TCP states.

`sudo netstat -at`	Show all TCP sockets
`sudo netstat -au`	Show all UDP sockets
`sudo netstat -ant`	Show TCP sockets with numeric addresses
`sudo netstat -ant | grep ESTABLISHED`	Show established TCP connections
`sudo netstat -ant | grep TIME_WAIT`	Show TCP connections in `TIME_WAIT`
`sudo netstat -atnc`	Watch TCP connection output continuously

Counts and Filters

Use shell filters with `netstat` output.

`sudo netstat -ant | wc -l`	Count TCP output rows
`sudo netstat -ant | grep ':80' | wc -l`	Count TCP connections involving port 80
`sudo netstat -ant | grep ESTABLISHED | wc -l`	Count established TCP connections
`sudo netstat -tulnp | grep nginx`	Find sockets owned by `nginx`
`sudo netstat -ant | grep 203.0.113.10`	Filter connections by remote IP address

Routes, Interfaces, and Stats

Show routing, interface, and protocol information.

`netstat -rn`	Show the routing table with numeric addresses
`netstat -r`	Show the routing table with name resolution
`netstat -i`	Show interface counters
`netstat -ie`	Show extended interface details
`netstat -s`	Show protocol statistics
`netstat -st`	Show TCP protocol statistics
`netstat -su`	Show UDP protocol statistics

Modern Replacements

Use current Linux tools for new workflows and scripts.

`netstat -tuln`	`ss -tuln`
`sudo netstat -tulnp`	`sudo ss -tulnp`
`netstat -rn`	`ip route`
`netstat -i`	`ip -s link`
`netstat -s`	`ss -s`

Troubleshooting

Common `netstat` issues and quick fixes.

`netstat: command not found`	Install the `net-tools` package or use `ss`
`Process column is empty`	Run with `sudo` when using `-p`
`Output is slow`	Add `-n` to disable name resolution
`Port lookup matches too much`	Search with a colon, such as `grep ':80'`
`Need listeners only`	Add `-l` with protocol flags such as `-tuln`

Related Guides

Use these guides for full walkthroughs and modern alternatives.

`netstat Command in Linux`	Full `netstat` guide with examples
`ss Command in Linux`	Modern socket inspection tool
`ip Command in Linux`	Modern routes and interface management
`How to Check Listening Ports in Linux`	Compare `ss`, `netstat`, and `lsof`
`lsof Command in Linux`	Tie sockets and files back to processes