SS Inspect sockets

CONCEPTS

With no options ss shows only connected sockets. Add -l for listening ones, -a for both.

Socket type -t -u -x -4 -6
↓ state / -l / -a
State filter state established
↓ expression
Address filter sport = :443
↓ -n -p -e -i
Output columns + extras

Process info (-p) only shows sockets you own unless you run ss as root.

SELECT SOCKETS

ss -t
TCP connections

ss -u
UDP sockets

ss -x
Unix domain sockets

ss -l
Only listening sockets

ss -a
Listening and connected

ss -4 / ss -6
Only IPv4 / IPv6

OUTPUT CONTROL

ss -n
Numeric ports and addresses

ss -p
Show owning process

ss -H
No header line

ss -O
One line per socket

ss -e
Extended info (uid, inode)

OUTPUT CONTROL (cont.)

ss -o
Show timers (keepalive, timewait)

ss -i
TCP internals (rtt, cwnd, retrans)

ss -s
Summary of socket counts

FILTER BY STATE

ss -t state established
Only established

ss -t state listening
Only listening TCP

ss -t state close-wait
Peer closed, app has not

FILTER BY ADDRESS

ss -tn 'sport = :<port>'
Local port equals

ss -tn 'dport = :<port>'
Remote port equals

ss -tn dst <ip>
Remote address

READING THE TABLE

Columns

Column	Meaning
Netid	Socket type: tcp, udp, u_str
State	LISTEN, ESTAB, TIME-WAIT...
Recv-Q	Bytes not yet read by the app
Send-Q	Bytes not yet acked by the peer
Local Address:Port	This end of the socket
Peer Address:Port	Remote end; * if none
Process	users:((name,pid,fd)) with -p

Local 0.0.0.0 or [::] means all interfaces; 127.0.0.1 is reachable only from this host.