

Command Line Options

| | | | |
|-------------------------|---|------------------------|---|
| -A | Print frame payload in ASCII | -q | Quick output |
| -c <count> | Exit after capturing count packets | -r <file> | Read packets from file |
| -D | List available interfaces | -s <len> | Capture up to len bytes per packet |
| -e | Print link-level headers | -S | Print absolute TCP sequence numbers |
| -F <file> | Use file as the filter expression | -t | Don't print timestamps |
| -G <n> | Rotate the dump file every n seconds | -v[v[v]] | Print more verbose output |
| -i <iface> | Specifies the capture interface | -w <file> | Write captured packets to file |
| -K | Don't verify TCP checksums | -x | Print frame payload in hex |
| -L | List data link types for the interface | -X | Print frame payload in hex and ASCII |
| -n | Don't convert addresses to names | -y <type> | Specify the data link type |
| -p | Don't capture in promiscuous mode | -Z <user> | Drop privileges from root to user |

Capture Filter Primitives

| | |
|--|---|
| [src dst] host <host> | Matches a host as the IP source, destination, or either |
| ether [src dst] host <ehost> | Matches a host as the Ethernet source, destination, or either |
| gateway host <host> | Matches packets which used host as a gateway |
| [src dst] net <network>/<len> | Matches packets to or from an endpoint residing in network |
| [tcp udp] [src dst] port <port> | Matches TCP or UDP packets sent to/from port |
| [tcp udp] [src dst] portrange <p1>-<p2> | Matches TCP or UDP packets to/from a port in the given range |
| less <length> | Matches packets less than or equal to length |
| greater <length> | Matches packets greater than or equal to length |
| (ether ip ip6) proto <protocol> | Matches an Ethernet, IPv4, or IPv6 protocol |
| (ether ip) broadcast | Matches Ethernet or IPv4 broadcasts |
| (ether ip ip6) multicast | Matches Ethernet, IPv4, or IPv6 multicasts |
| type (mgt ctl data) [subtype <subtype>] | Matches 802.11 frames based on type and optional subtype |
| vlan [<vlan>] | Matches 802.1Q frames, optionally with a VLAN ID of vlan |
| mpls [<label>] | Matches MPLS packets, optionally with a label of label |
| <expr> <relop> <expr> | Matches packets by an arbitrary expression |

| Protocols | | | Modifiers | Examples | |
|-----------|---------|------|-------------------|--------------------------------|-----------------------------|
| arp | ip6 | slip | ! or not | udp dst port not 53 | UDP not bound for port 53 |
| ether | link | tcp | && or and | host 10.0.0.1 && host 10.0.0.2 | Traffic between these hosts |
| fddi | ppp | tr | or or | tcp dst port 80 or 8080 | Packets to either TCP port |
| icmp | radio | udp | ICMP Types | | |
| ip | rarp | wlan | | | |
| TCP Flags | | | icmp-echoreply | icmp-routeradvert | icmp-tstampreply |
| | | | icmp-unreach | icmp-routersolicit | icmp-ireq |
| tcp-urg | tcp-rst | | icmp-sourcequench | icmp-timxceed | icmp-ireqreply |
| tcp-ack | tcp-syn | | icmp-redirect | icmp-paramprob | icmp-maskreq |
| tcp-psh | tcp-fin | | icmp-echo | icmp-tstamp | icmp-maskreply |