

## Wireshark

- Used for In-depth protocol analysis
- Mainly used for troubleshooting network issues as well as educational purposes
- Packet capture and analysis with a user-friendly GUI
- Captures packets with GUI or command-line interface
- Provides detailed packet analysis and also supports live capture and reading from capture files
- GUI can be resource-intensive
- Mainly used by security analysts, network administrators, and general users
- Available for Windows, macOS, Linux, and more
- Supports a wide range of filter expressions

### Similarities

- Open-source
- Large community
- Can decode packets
- Used to capture packets
- Filtering
- Troubleshoot networks

## tcpdump

- Used for quick packet capture and analysis
- Mainly used in scripting and automation
- Remote capture can be done using SSH
- Displays output in a terminal
- Limited to packet capture and basic analysis
- Not suitable for real-time analysis
- Mainly used by network administrators, advanced users
- Typically runs on Unix/Linux systems
- Filters based on protocols, source/destination IP, ports, and more using BPF syntax