

# Lanka Education and Research Network

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## Wireshark Analysis

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# Overview

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- Why do we need packet capturing
- Packet capturing tools
- What is wireshark
- About wireshark
- Why wireshark
- Features

# Why do we need packet capturing?

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- Security
- Identification of Data Leakage
- Troubleshooting
- Identifying Data/Packet Loss
- Forensics

# Packet Capturing Tools

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- Tcpdump
- Wireshark

## **tcpdump Definition**

tcpdump is a utility used to capture and analyze packets on network interfaces. Details about these packets can either be displayed to the screen or they can be saved to a file for later analysis. tcpdump utilizes the libpcap library for packet capturing.

# What is Wireshark?

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- Wireshark is a network packet/protocol analyzer.
  - A network packet analyzer will try to capture network packets and tries to display that packet data as detailed as possible.
- Wireshark is perhaps one of the best open source packet analyzers available today for UNIX and Windows.

# About Wireshark

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- Formerly known as “Ethereal” – Author, Gerald Combs quit Network Integration Services – Free
- Requirement – Need to install winpcap – Latest wireshark installer contains winpcap, don't worry – (On Windows Vista) Need Administrator Privilege to capture
- GUI – Dramatically improved

# Why Wireshark?

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- network administrators use it to troubleshoot network problems
- network security engineers use it to examine security problems
- developers use it to debug protocol implementations
- people use it to learn network protocol internals
- Wireshark isn't an intrusion detection system
- Wireshark will not manipulate things on the network, it will only "measure" things from it

# Features

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- Filters
  - Capture filter
  - Display filter
  - Tweak appearance
- Follow TCP Stream
- Use Statistics



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Thank You

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