Net.Shark **hand**-**held** TAP

Taping, Filtering , Aggregation , Storage battery operated device
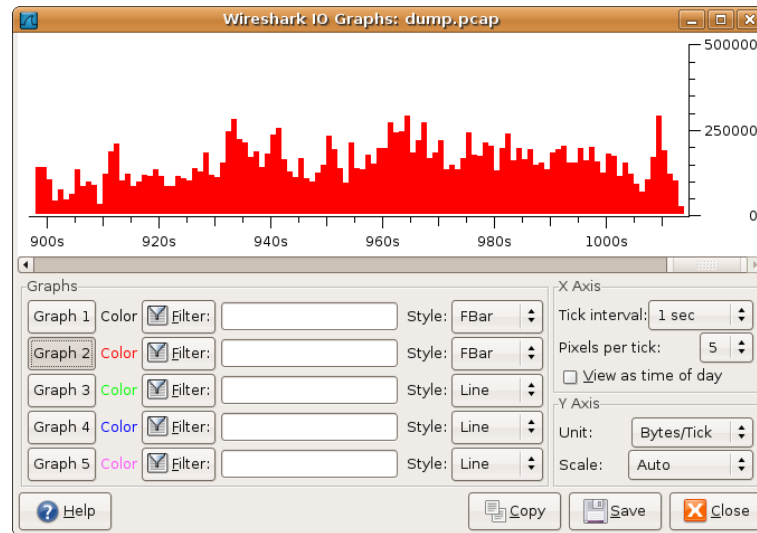
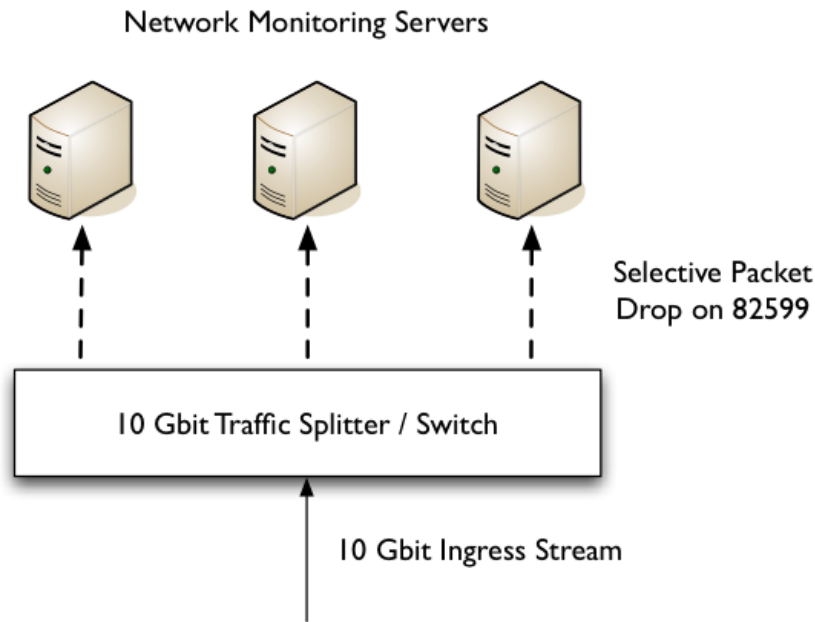**ALBEDO**

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Net.Shark – top featured hand-held tap

1. It is software therefore…
2. Wireshark cannot capture from two interfaces at once
3. Does not work @ wirespeed (the best is about 90Mbit/s)
4. It is unable to analyse 100% stream without delays
5. It can't filter at 100% wirespeed in a lossless way
6. A PC with Wireshark is not a field tool: not mobility too weaky

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Network Monitoring Servers

Selective Packet
Drop on 82599

10 Gbit Traffic Splitter / Switch
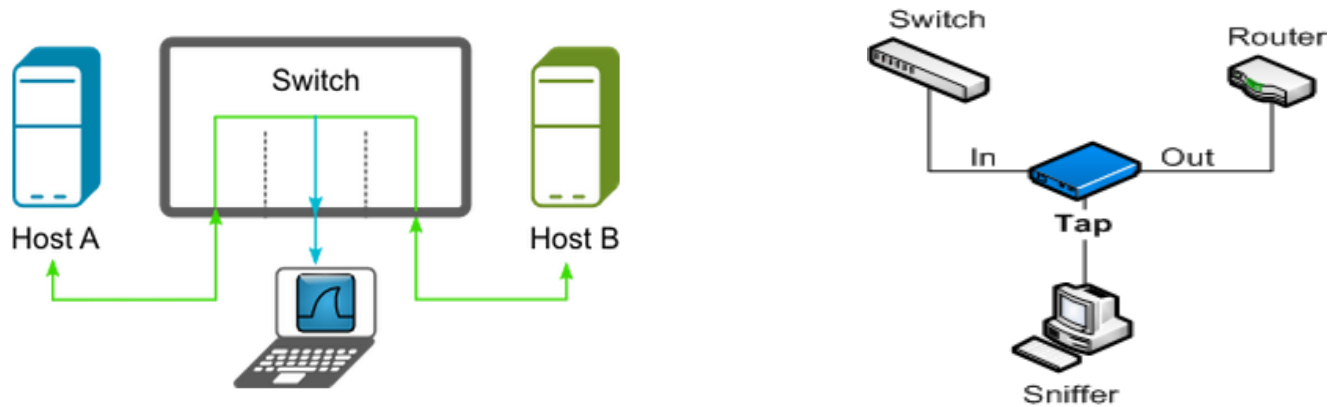
10 Gbit Ingress Stream

◆ Capture the 100% of compliant traffic is key for successful analysis

but.. packet were lost while capturing !!!

◆ *What happened?* Not all packets coming could be saved
◆ The PC was too slow to handle packets some had to be discarded]

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Monitor Ports (MP)

◆ do not pass bad / long / short frames, or VLAN tags

◆ change timing – you can't do any timing studies, no jitter …

◆ MP / replication is low priority of a switch and thus issues

Consequently

◆ Monitor ports are NOT acceptable law enforcement surveillance

◆ Monitor ports are NOT acceptable for Compliance or Audit studies

>>> Use a Net.Shark because it can do the job

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Unique **Tap** & **Storage** device

223 mm

144 mm
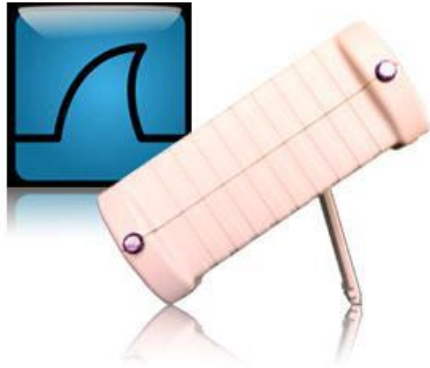
- 1 kg
- Battery
- Keyboard + Screen

- SFP - Span Ports
- RJ45 - Drop Port

- Remote Control Port
- USB and Printer

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Net.Shark – **Easy GUI** for field engineers

Port A
Softleds

Port B
Softleds

Fecha y hora

Panel actual

A

Clock

Line

Frame

CRC-4 MF

CAS MF

Pattern

Stopped   00:00:05
Home (5/5)

Test
Selects and configures a particular test

Setup
Configures test ports and resources

Results
Checks test results

File
Manages configuration files and reports

System
Configures display and other platform-wide settings

TFT color screen
(480 x 272 pixels)

Menu items

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Net.Shark vs. Filtering

Net.Shark

◆ equipped with 16 filters to capture traffic in real time

◆ Full Dulex Operation means independent Up/Downstream filters

◆ All filters (16+16) can work simultaneouslly at wirespeed (1Gb/s + 1Gb/s)

◆ Multiplayer filters: MAC, VLAN, IP, UDP, TCP, etc.

Net.Shark : Unique Tap & Store device

World **first** hand-held tool

◆ **Captures** ALL **packets** that are

  ▪ Compliant with a trigger condition
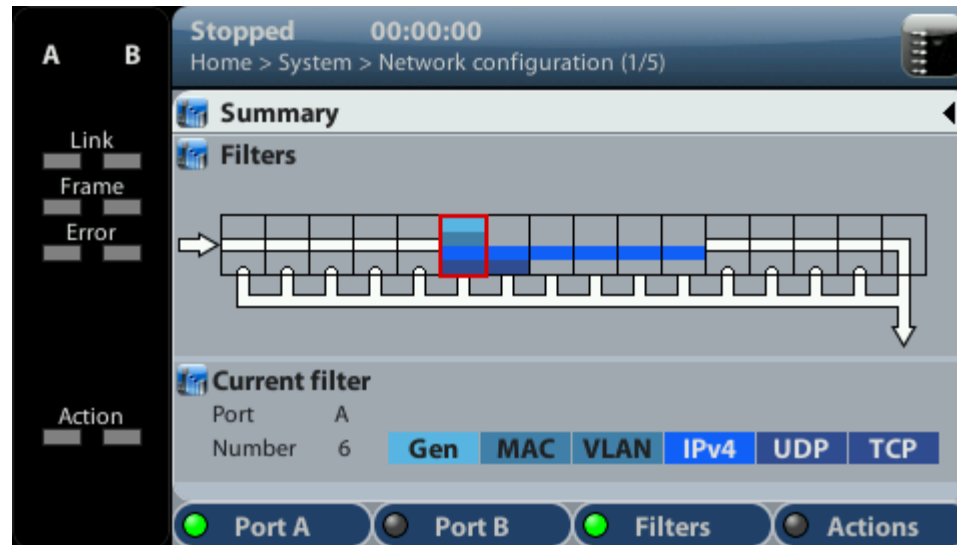
  ▪ Compliant with any of the 16 programmable filter

◆ **C&P** compliant IP packets

◆ Caught packets can be

  ▪ **SAVED** in PCAP in an SD card

  ▪ **TAPED** to 1000BASE-T

All the operations at **wirespeed**

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Net.Shark is equipped with 16 filters to capture traffic in real time

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Ethernet filters 16 simultaneous filters can be applied to the traffic

- Customizable by Ethernet, IP, UDP and TCP
- Agnostics filters by 16 bits masks and offset
- Lawful filter: 64 byte pattern

o Ethernet filters 16 simultaneous filters can be applied to the traffic

- By source and destination MAC addresses.
- Selection of MAC address sets with masks
- By Ethertype value with selection mask
- By VLAN-VID with selection mask
- By VLAN-CoS value with selection mask

o IP filters

- IP address: source, destination, or both
- IP address group: subset of addresses filtered by masks
- Protocol encapsulated (TCP, UDP, Telnet, FTP, etc.)
- DSCP field, single value and range
- TCP/UDP port, single value and rangeCaptures ALL packets that are

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Net.Shark in Operation

Host A

Switch

Host B

Internal Storage

SanDisk 16 GB SD

Tap
(1000BASE-T)

SD Card

- 100% conformance packets with one filter are C&P
- The copy is Dropped to the LAN port or Saved in Memory
- **ALL** the operations are executed in real time: 1Gb/s throughput

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- ◆ Protocol Analysis VoIP, IPTV
  - Indoors Operatation
  - Field Operation
  - WiFi captures

- ◆ Security – Packet capture
  - Internet analysis
  - 100% capture is a must
  - Intelligence agencies

- ◆ Enterprise
  - Protocol Analysis
  - Troubleshooting

- ◆ Lawful interception
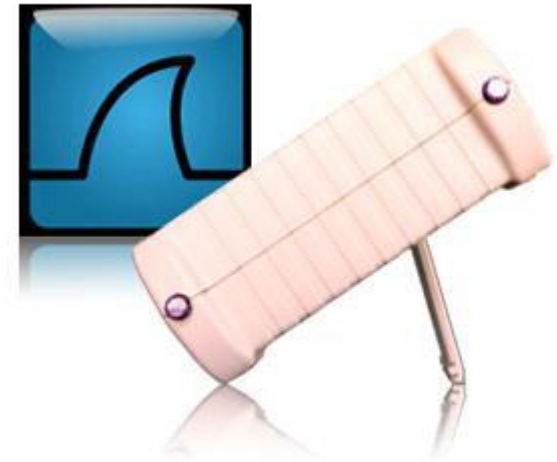 - Local Police
  - Gov. Inteligence

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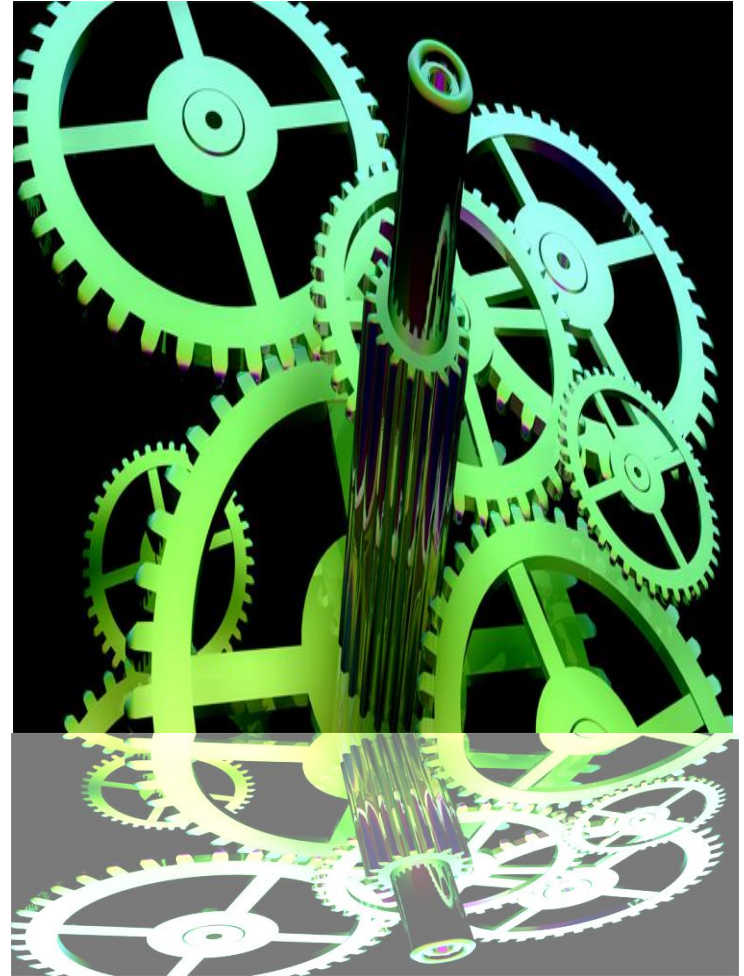
Net.Shark - Competitors

Fast Setup & Run, no PC needed

◆ Hand held with batteries

◆ Local & Remote Control

◆ 16 real time filters

◆ Full Duplex Capture (Tx Rx)

◆ Aggregated drop

◆ Save in Memory Card

i-Remote Control

Why Net.Shark

- ◆ **FIELD OPERATION**: hand-held (4h. with batteries)

- ◆ **STORAGE CAPACITY**: PCAP captured packets

- ◆ **HARDWARE PERFORMANCE**: 100% lossless at GbE

- ◆ **FDX TIME STAMPS**: protocols are full duplex

- ◆ **REMOTE CONTROL**: from any VNC platform

- ◆ **ACCURATE REPORTING**: for further analysis

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That's all

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