This pdf shows basic Wireshark install, operation, and file saving for OpenSUSE. You must have permission to run this program from the network owner. Remember nonrepudiation!

YaST Control Center @ linux-msctc

Search

- Software
- Hardware
- System
- Network Devices
- Network Services
- Novell AppArmor
- Security and Users
- Virtualization
- Support
- Miscellaneous

Software

- Add-On Products
  Install or remove add-on products
- FACTORY Update
- Media Check
- Online Update
- Online Update Configuration
- Package Search (webpin)
- Software Management

Ready

linux-msctc - VMware Player File Virtual Machine Help

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Search

Software

Hardware

System

Network Devices

Network Services

Novell AppArmor

Security and Use

Virtualization

Support

Miscellaneous

Software

Add-On Products

YaST2

Starting the Software Manager

✔ Initialize the Target System

✔ Load the Configured Repositories

100%

Help Abort Back Next

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vmware

linux-msctc - VMware Player File Virtual Machine Help

YaST2

File Package Configuration Dependencies Options Extras Help

View Search RPM Groups Installation Summary Package Groups

wireshark Search

Search in

- [x] Name
- [x] Keywords
- [x] Summary
- [ ] Description
- [ ] RPM "Provides"
- [ ] RPM "Requires"
- [ ] File list

Search Mode:

Contains

- [ ] Case Sensitive

Package	Summary	Installed (Availat	Size

Description Technical Data Dependencies Versions Fil

Cancel Accept

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linux-msctc - VMware Player File Virtual Machine Help

YaST2

File Package Configuration Dependencies Options Extras Help

View Search RPM Groups Installation Summary Package Groups

wireshark Search

Search in

- [x] Name
- [x] Keywords
- [x] Summary
- [ ] Description
- [ ] RPM "Provides"
- [ ] RPM "Requires"
- [ ] File list

Search Mode:

Contains

- [ ] Case Sensitive

Package	Summary	Installed (Av	Size
[x] wireshark	A Network Traffic An...	1.4.2-1.1.2	52.6 MiB
[ ] wireshark-devel	A Network Traffic An...	(1.4.2-1.1...	598.0 ...

Description Technical Data Dependencies Versions Fil

wireshark - A Network Traffic Analyser

Wireshark is a free network protocol analyzer for Unix and Windows. It allows you to examine data from a live network or from a capture file on disk. You can interactively browse the capture data, viewing summary and detail information for each packet. Wireshark has several powerful features, including a rich display filter language and the ability to view the

Cancel Accept

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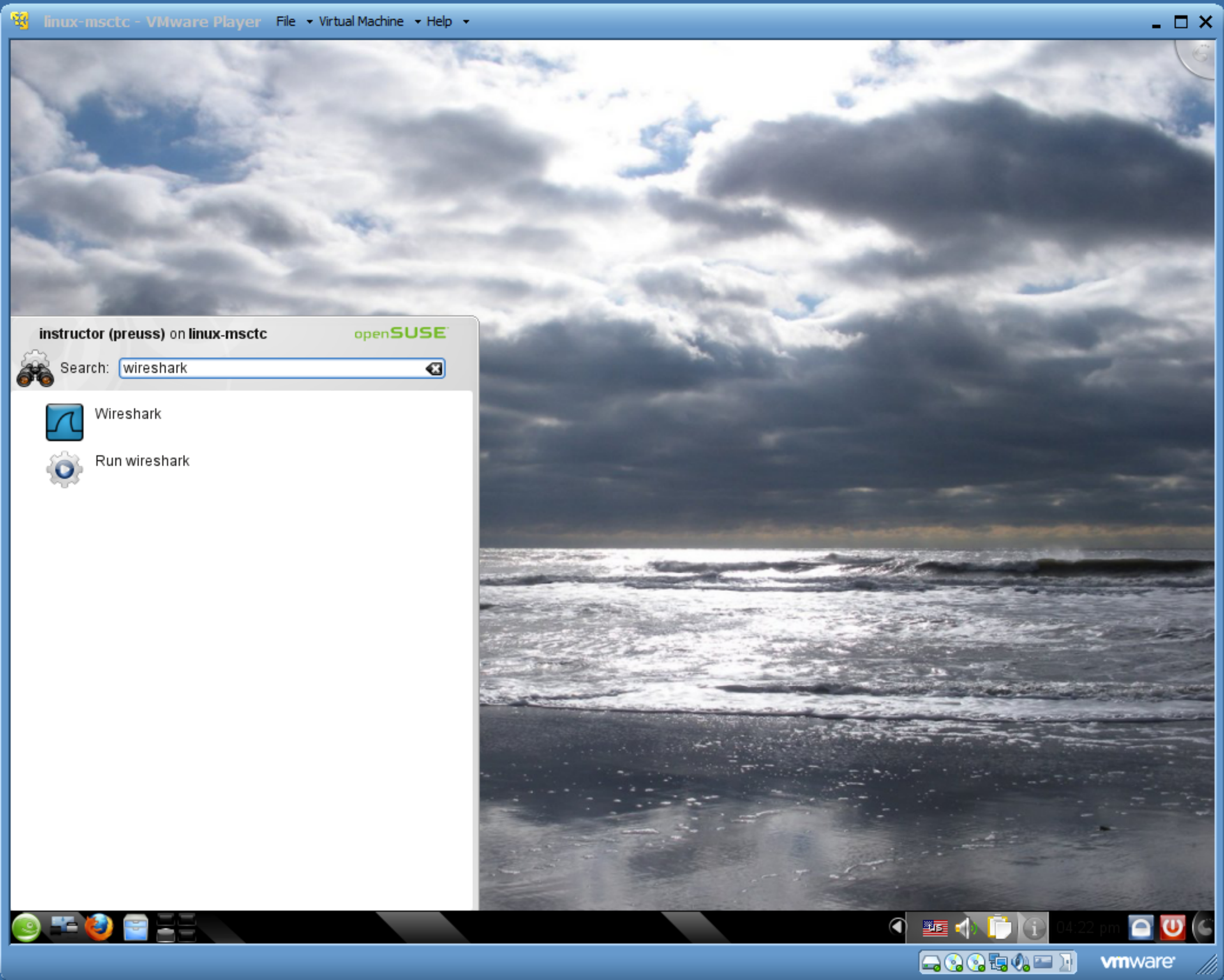
linux-msctc - VMware Player
File
Virtual Machine
Help
instructor (preuss) on linux-msctc
openSUSE
Search:
wireshark
Wireshark
Run wireshark
04:22 pm
vmware

Run as root – KDE su

The action you requested needs **root privileges**.
Please enter **root's** password below or click Ignore to continue with your current privileges.

Command: /usr/bin/wireshark

Password:

Remember password

Ignore OK Cancel

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The Wireshark Network Analyzer

File Edit View Go Capture Analyze Statistics Telephony Tools Help

Filter: Expression... Clear Apply

WIRESHARK

The World's Most Popular Network Protocol Analyzer

Capture

Interface List
Live list of the capture interfaces (counts incoming packets)

Start capture on interface:

eth0
Pseudo-device that captures on all interfaces
lo

Capture Options
Start a capture with detailed options

Capture Help

How to Capture
Step by step to a successful capture setup

Network Media
Specific information for capturing on: Ethernet, WLAN, ...

Files

Open
Open a previously captured file

Open Recent:

/home/preuss/Documents/dragon02_02252011_hub (2382 KB)
/home/preuss/Documents/dragon01_02252011 (230 KB)

Sample Cap
A rich assortment of

Webs
Visit the

User'
The User'

Secu
Work witl

Your ethernet card may have another name.

Ready to load or capture | No Packets | Profile: Default

The Wireshark Network Analyzer

04:23 pm

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Capturing from eth0 - Wireshark

File Edit View Go Capture Analyze Statistics Telephony Tools Help

Filter: Expression... Clear Apply

No.	Time	Source	Destination	Protocol	Info

eth0: <live capture in progress> to... No Packets Profile: Default

Capturing from eth0 - Wireshark

04:23 pm

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Capturing from eth0 - Wireshark

File Edit View Go Capture Analyze Statistics Telephony Tools Help

Filter: Expression... Clear Apply

No.	Time	Source	Destination	Protocol	Info
563	16.768915	192.168.5.7	192.168.5.1	DNS	Standard query A ex
564	16.772586	192.168.5.7	192.168.5.1	DNS	Standard query AAAA ex
565	16.779009	192.168.5.1	192.168.5.7	DNS	Standard query response, No such na
566	16.782880	192.168.5.1	192.168.5.7	DNS	Standard query response, No such na
567	22.718502	192.168.5.7	134.29.228.101	TCP	43784 > http [FIN, ACK] Seq=2019 Ac
568	22.718590	192.168.5.7	130.57.4.24	TCP	46685 > http [FIN, ACK] Seq=568 Ack
569	22.793478	134.29.228.101	192.168.5.7	TCP	http > 43784 [FIN, ACK] Seq=341047
570	22.793495	192.168.5.7	134.29.228.101	TCP	43784 > http [ACK] Seq=2020 Ack=341
571	22.808205	130.57.4.24	192.168.5.7	TCP	http > 46685 [FIN, PSH, ACK] Seq=15
572	22.808217	192.168.5.7	130.57.4.24	TCP	46685 > http [ACK] Seq=569 Ack=1501

```
▷ Frame 1: 66 bytes on wire (528 bits), 66 bytes captured (528 bits)
▷ Ethernet II, Src: Cisco-Li_71:97:f4 (00:14:bf:71:97:f4), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
▷ Internet Protocol, Src: 192.168.5.3 (192.168.5.3), Dst: 192.168.5.255 (192.168.5.255)
▷ User Datagram Protocol, Src Port: router (520), Dst Port: router (520)
▷ Routing Information Protocol
```

```
0000  ff ff ff ff ff ff 00 14  bf 71 97 f4 08 00 45 00   ........ .q....E.
0010  00 34 e1 50 00 00 40 11  0d 16 c0 a8 05 03 c0 a8   .4.P..@. ........
0020  05 ff 02 08 02 08 00 20  a3 9c 02 02 00 00 00 02   ....... ........
```

eth0: <live capture in progress> Fi... Packets: 572 Displayed: 572 Marked: 0 Profile: Default

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Capturing from eth0 - Wireshark

File Edit View Go Capture Analyze Statistics Telephony Tools Help

Open... Ctrl+O
Open Recent
Merge...
Close Ctrl+W
Save Ctrl+S
Save As... Shift+Ctrl+S
File Set
Export
Print... Ctrl+P
Quit Ctrl+Q

Expression... Clear Apply

	Destination	Protocol	Info
3	192.168.5.255	RIPv2	Response
7	192.168.5.1	DNS	Standard query A www.opensuse.org
7	192.168.5.1	DNS	Standard query AAAA www.opensuse.or
1	192.168.5.7	DNS	Standard query response A 130.57.4
1	192.168.5.7	DNS	Standard query response
7	130.57.4.24	TCP	46684 > http [SYN] Seq=0 Win=5840 L
4	192.168.5.7	TCP	http > 46684 [SYN, ACK] Seq=0 Ack=1
7	130.57.4.24	TCP	46684 > http [ACK] Seq=1 Ack=1 Win=
7	130.57.4.24	HTTP	GET / HTTP/1.1
10 0.490522	130.57.4.24	192.168.5.7	TCP http > 46684 [ACK] Seq=1 Ack=534 W

```
Frame 1: 66 bytes on wire (528 bits), 66 bytes captured (528 bits)
Ethernet II, Src: Cisco-Li_71:97:f4 (00:14:bf:71:97:f4), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
Internet Protocol, Src: 192.168.5.3 (192.168.5.3), Dst: 192.168.5.255 (192.168.5.255)
User Datagram Protocol, Src Port: router (520), Dst Port: router (520)
Routing Information Protocol
```

```
0000  ff ff ff ff ff ff 00 14  bf 71 97 f4 08 00 45 00   ........ .q....E.
0010  00 34 e1 50 00 00 40 11  0d 16 c0 a8 05 03 c0 a8   .4.P..@. ........
0020  05 ff 02 08 02 08 00 20  a3 9c 02 02 00 00 00 02   ....... ........
```

eth0: <live capture in progress> Fi... Packets: 588 Displayed: 588 Marked: 0 Profile: Default

Capturing from eth0 - Wireshark

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Capturing from eth0 - Wireshark

File Edit View Go Capture Analyze Statistics Telephony Tools Help

Filter: Clear Apply

No.	Time	Sour	Protocol	Info
1	0.000000	192	RIPv2	Response
2	0.227001	192	DNS	Standard query A www.opensuse.org
3	0.231336	192	DNS	Standard query AAAA www.opensuse.or
4	0.312662	192	DNS	Standard query response A 130.57.4
5	0.312673	192	DNS	Standard query response
6	0.313639	192	TCP	46684 > http [SYN] Seq=0 Win=5840 L
7	0.400435	130	TCP	http > 46684 [SYN, ACK] Seq=0 Ack=1
8	0.400490	192	TCP	46684 > http [ACK] Seq=1 Ack=1 Win=
9	0.400674	192	HTTP	GET / HTTP/1.1
10	0.490522	130	TCP	http > 46684 [ACK] Seq=1 Ack=534 W

Analyze menu:
- Display Filters...
- Display Filter Macros...
- Apply as Column
- Apply as Filter >
- Prepare a Filter >
- Enabled Protocols... Shift+Ctrl+E
- Decode As...
- User Specified Decodes...
- Follow TCP Stream
- Follow UDP Stream
- Follow SSL Stream
- Expert Info
- Expert Info Composite
- Conversation Filter >

Frame 6: 74 bytes on wire (592 bits), 74 bytes captured (5
Ethernet II, Src: Vmware_21:f8:df (00:0c:29:21:f8:df), Dst fa:b0)
Internet Protocol, Src: 192.168.5.7 (192.168.5.7), Dst: 13
Transmission Control Protocol, Src Port: 46684 (46684), Ds

```
0000  00 14 6c 40 fa b0 00 0c  29 21 f8 df 08 00 45 00   ..l
0010  00 3c 1f bd 40 00 40 06  ce fe c0 a8 05 07 82 39   .<.
0020  04 18 b6 5c 00 50 f1 4f  5d 3a 00 00 00 00 a0 02   ...\.P.O ]:......
```

The example selects a tcp packet and chooses the Follow TCP Stream

Frame (frame), 74 bytes | Packets: 592 Displayed: 592 Marked: 0 | Profile: Default

Capturing from eth0 - Wireshark

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Follow TCP Stream

Stream Content

```
GET / HTTP/1.1
Host: brazil.minnesota.edu
User-Agent: Mozilla/5.0 (X11; U; Linux i686; en-US; rv:1.9.2.15) Gecko/20110303 SUSE/3.6.15-0.2.1
Firefox/3.6.15
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-us,en;q=0.5
Accept-Encoding: gzip,deflate
Accept-Charset: ISO-8859-1,utf-8;q=0.7,*;q=0.7
Keep-Alive: 115
Connection: keep-alive

HTTP/1.1 200 OK
Content-Type: text/html
Content-Encoding: gzip
Last-Modified: Tue, 22 Mar 2011 18:20:29 GMT
Accept-Ranges: bytes
ETag: "e19cbbd2bde8cb1:0"
Vary: Accept-Encoding
Server: Microsoft-IIS/7.5
X-Powered-By: ASP.NET
Date: Wed, 23 Mar 2011 21:22:15 GMT
```

Find Save As Print Entire conversation (343064 bytes) ASCII EBCDIC Hex Dump C Arrays Ra

Help Filter Out This Stream Close

```
0000  00 14 6c 40 fa b0 00 0c  29 21 f8 df 08 00 45 00   ..l@.... )!....E.
0010  00 3c 2a 19 40 00 40 06  e0 70 c0 a8 05 07 86 1d   .<*.@.@. .p......
0020  e4 65 ab 08 00 50 f9 f2  4d 43 00 00 00 00 a0 02   .e...P.. MC......
```

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Capturing from eth0 - Wireshark

File Edit View Go Capture Analyze Statistics Telephony Tools Help

Filter: tcp.stream eq 20 Expression... Clear Apply

No.	Time	Source	Destination	Protocol	Info
111	9.740221	192.168.5.7	134.29.228.101	TCP	43784 > http [SYN] Seq=0 Win=5840 L
112	9.817413	134.29.228.101	192.168.5.7	TCP	http > 43784 [SYN, ACK] Seq=0 Ack=1
113	9.817438	192.168.5.7	134.29.228.101	TCP	43784 > http [ACK] Seq=1 Ack=1 Win=
114	9.817563	192.168.5.7	134.29.228.101	HTTP	GET / HTTP/1.1
115	9.901146	134.29.228.101	192.168.5.7	TCP	[TCP segment of a reassembled PDU]
116	9.901164	192.168.5.7	134.29.228.101	TCP	43784 > http [ACK] Seq=387 Ack=136
117	9.901305	134.29.228.101	192.168.5.7	TCP	[TCP segment of a reassembled PDU]
118	9.901310	192.168.5.7	134.29.228.101	TCP	43784 > http [ACK] Seq=387 Ack=273
119	9.979780	134.29.228.101	192.168.5.7	TCP	[TCP segment of a reassembled PDU]
120	9.979795	192.168.5.7	134.29.228.101	TCP	43784 > http [ACK] Seq=387 Ack=410

```
▷ Frame 115: 1434 bytes on wire (11472 bits), 1434 bytes captured (11472 bits)
▷ Ethernet II, Src: Netgear_40:fa:b0 (00:14:6c:40:fa:b0), Dst: Vmware_21:f8:df (00:0c:29:21:f8:df)
▷ Internet Protocol, Src: 134.29.228.101 (134.29.228.101), Dst: 192.168.5.7 (192.168.5.7)
▷ Transmission Control Protocol, Src Port: http (80), Dst Port: 43784 (43784), Seq: 1, Ack: 387, Ler
```

```
0000  00 0c 29 21 f8 df 00 14  6c 40 fa b0 08 00 45 00   ..)
0010  05 8c 2b 0c 40 00 6e 06  ac 2d 86 1d e4 65 c0 a8   ..+
0020  05 07 00 50 ab 08 bc 17  96 b6 f9 f2 4e c6 80 10   ...
```

eth0: <live capture in progress> Fi... Packets: 659 Displayed: 435 Marked: 5

Use Ctrl M to select the packets requested by the lab.

Capturing from eth0 - Wireshark

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linux-msctc - VMware Player File Virtual Machine Help

Capturing from eth0 - Wireshark

File Edit View Go Capture Analyze Statistics Telephony Tools Help

Filter: tcp.stream eq 20 Expression... Clear Apply

No.	Time	Source	Destination	Protocol	Info
127	9.984935	192.168.5.7	134.29.228.101	HTTP	GET /default_html_m2b0c4566.jpg HT
128	10.088268	134.29.228.101	192.168.5.7	TCP	[TCP segment of a reassembled PDU]
129	10.088345	134.29.228.101	192.168.5.7	TCP	[TCP segment of a reassembled PDU]
130	10.088353	192.168.5.7	134.29.228.101	TCP	43784 > http [ACK] Seq=808 Ack=101
131	10.088846	134.29.228.101	192.168.5.7	TCP	[TCP segment of a reassembled PDU]
132	10.090141	134.29.228.101	192.168.5.7	TCP	[TCP segment of a reassembled PDU]
133	10.090145	192.168.5.7	134.29.228.101	TCP	43784 > http [ACK] Seq=808 Ack=128
134	10.092195	134.29.228.101	192.168.5.7	TCP	[TCP segment of a reassembled PDU]
135	10.094187	134.29.228.101	192.168.5.7	TCP	
136	10.094194	192.168.5.7	134.29.228.101	TCP	

Frame 133: 66 bytes on wire (528 bits), 66 bytes captured

Etherne :29:21:f8:df), Dst

Interne .168.5.7), Dst: 13

Transmi 43784 (43784), Ds

0000 00 08 00 45 00 ..l

0010 00 05 07 86 1d .4*

0020 e4 c8 e6 80 10 .e.

Export your selected packets as a pdml file for submission.

eth0: <live capture in progress> Fi... Packets: 675 Displayed: 435 Marked: 22

Wireshark: Export as "PDML" file

Export to file:

stream2 Browse...

Packet Range

	Captured	Displayed
All packets	673	435
Selected packet only	1	1
Marked packets only	22	22
From first to last marked packet	22	22
Specify a packet range:	0	0
Remove Ignored packets	0	0

Help Cancel OK

Capturing from eth0 - Wireshark

04:30 pm

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linux-msctc - VMware Player File Virtual Machine Help

Documents : bash

File Edit View Scrollback Bookmarks Settings Help

```
preuss@linux-msctc:~/Documents> ls
dragon01_02252011      hosts              New Spreadsheet.ots  stream2  tmp
dragon02_02252011_hub  New Document.ott  new.txt              test.gz
preuss@linux-msctc:~/Documents>
```

Documents : bash

You may view the contents of stream2.

Documents : bash Capturing from eth0 - Wireshark 04:32 pm

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