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COMPUTER COMMUNICATIONS PROJECT 2 REPORT
USING WIRESHARK VERSION Version 2.6.4 (v2.6.4-0-g29d48ec8)

Question 1

Wireshark Network traffic analysis tool interface showing four captured DHCP messages:

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	0.0.0.0	255.255.255.255	DHCP	14	DHCP Discover - Transaction ID 0x3d1d
2	0.000295	192.168.0.1	192.168.0.10	DHCP	342	DHCP Offer - Transaction ID 0x3d1d
3	0.070031	0.0.0.0	255.255.255.255	DHCP	14	DHCP Request - Transaction ID 0x3d1c
4	0.070345	192.168.0.1	192.168.0.10	DHCP	342	DHCP ACK - Transaction ID 0x3d1e

Message details for Frame 1:

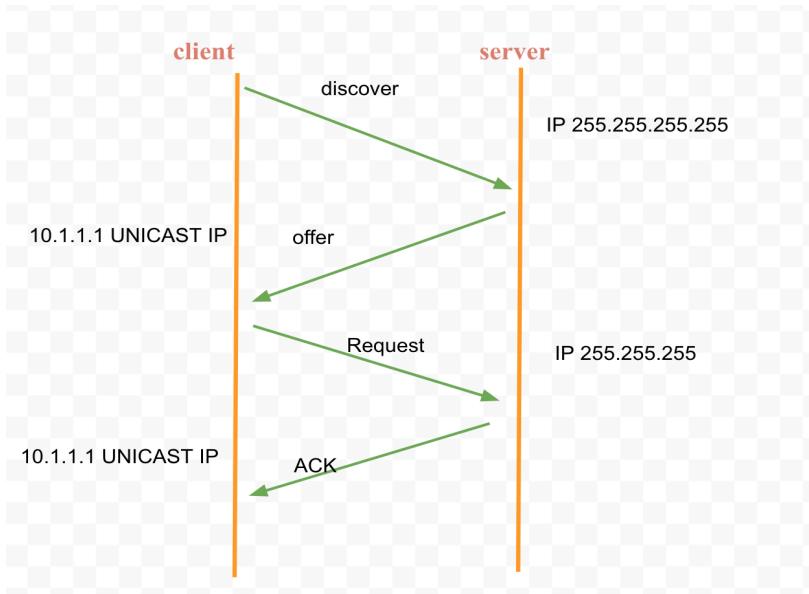
```
> Frame 1: 314 bytes on wire (2512 bits), 314 bytes captured (2512 bits)
> Ethernet II, Src: Grandstr_01:fc:42 (00:0b:82:01:fc:42), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
> Internet Protocol Version 4, Src: 0.0.0.0, Dst: 255.255.255.255
> User Datagram Protocol, Src Port: 68, Dst Port: 67
> Bootstrap Protocol (Discover)
```

Wireshark Network traffic analysis tool interface showing the same four captured DHCP messages, with the second message (Offer) highlighted by a red box.

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	0.0.0.0	255.255.255.255	DHCP	314	DHCP Discover - Transaction ID 0x3d1d
2	0.000295	192.168.0.1	192.168.0.10	DHCP	342	DHCP Offer - Transaction ID 0x3d1d
3	0.070031	0.0.0.0	255.255.255.255	DHCP	314	DHCP Request - Transaction ID 0x3d1c
4	0.070345	192.168.0.1	192.168.0.10	DHCP	342	DHCP ACK - Transaction ID 0x3d1e

Selected message details (Frame 2 - DHCP Offer):

```
Boot file name not given
Magic cookie: DHCP
Option: (53) DHCP Message Type (Discover)
  Length: 1
  DHCP: Discover (1)
Option: (61) Client identifier
  Length: 7
  Hardware type: Ethernet (0x01)
  Client MAC address: Grandstr_01:fc:42 (00:0b:82:01:fc:42)
Option: (50) Requested IP Address
  Length: 4
  Requested IP Address: 0.0.0.0
Option: (55) Parameter Request List
  Length: 4
  Parameter Request List Item: (1) Subnet Mask
  Parameter Request List Item: (3) Router
  Parameter Request List Item: (6) Domain Name Server
  Parameter Request List Item: (42) Network Time Protocol Servers
Option: (255) End
  Option End: 255
  Padding: 0000000000000000
```



. DHCP goes through 4 stages when giving a client an IP address. These stages are

- Acknowledgement
- Request
- Offer
- Discovery

Discovery

Here broadcasting message is sent by the client on a network subnet by the use of a special IP 255.255.255.255.

Offer

After the **discovery** message is received by the server. The server creates an IP for that client and sends a DHCP Offer message to the client. The message contains information such as the IP address of the server and the client Mac address.

Request

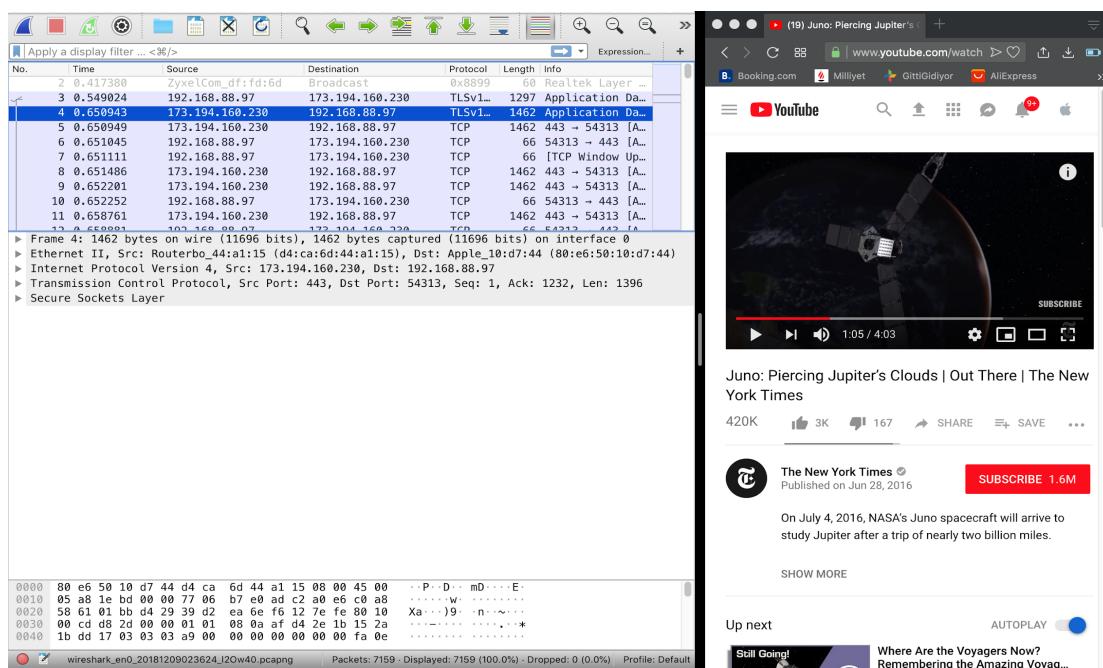
After the DHCP **offer**, the client replies to the server. In this request the client requests the offered address. In cases where the client gets multiple offers from different servers only one of the offers will be accepted. The servers will be informed on whose request is accepted. The servers whose results are not accepted will return the offered address to the available addresses.

Acknowledgement

When the DHCP server gets a request from a client. The acknowledgement is about sending a DHCP packet to the client. This packet has a very low latency and at this stage (acknowledgement) the IP setup process finishes.

Question 2

Capturing a video

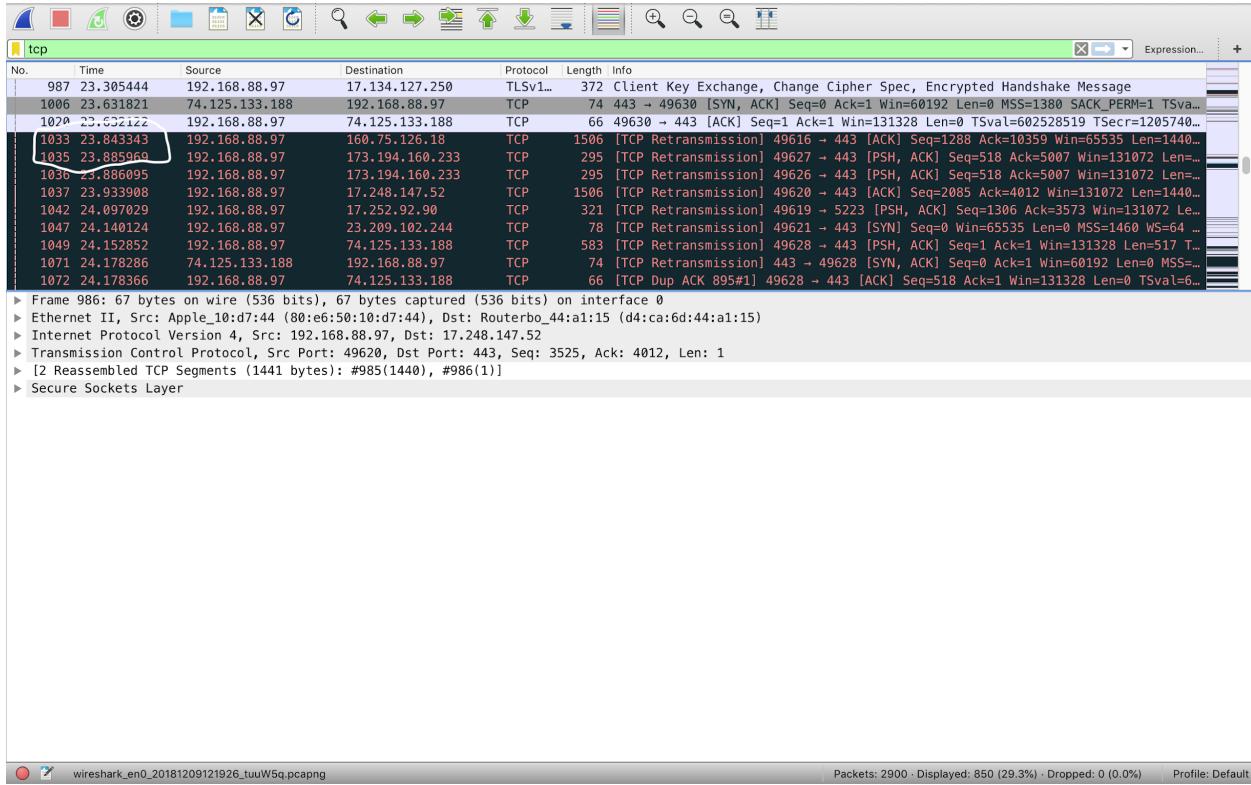


The protocols I found include

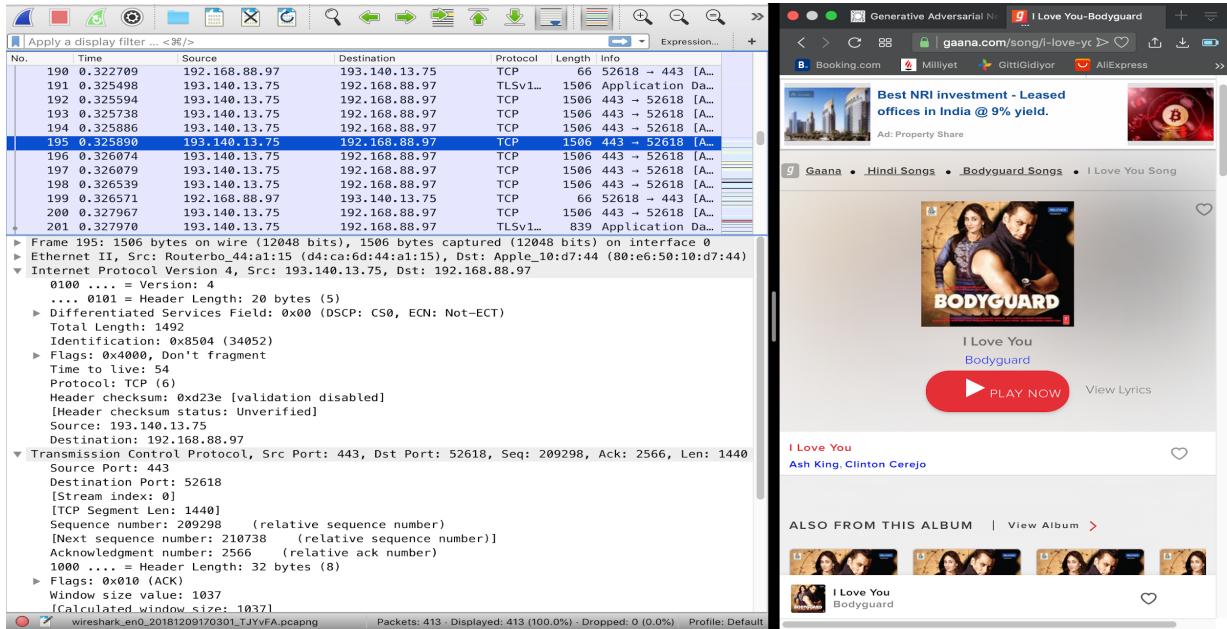
- TCP, UDP, IPV4, TLSv1, GQUIC

About retransmission

Yes there was a retransmission during the session using TCP. The time between the retransmissions is 0.04sec. But I did find any retransmission during UDP



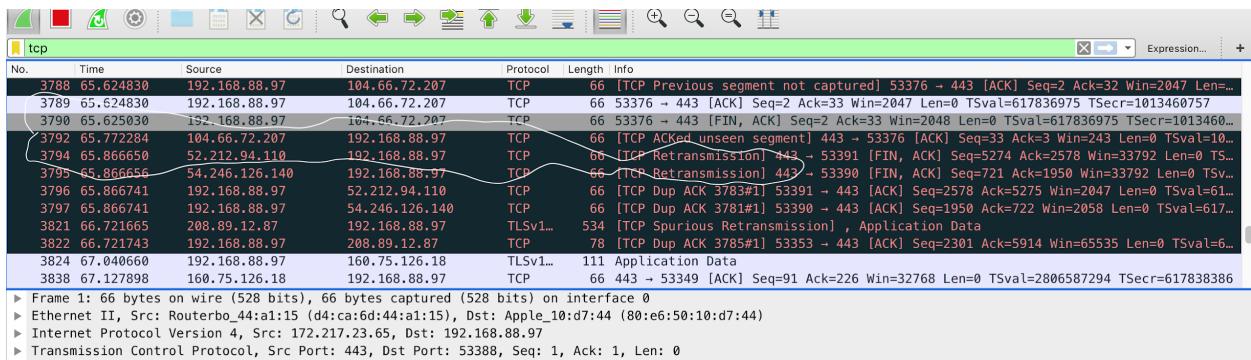
Capturing an Audio



The protocols I found include

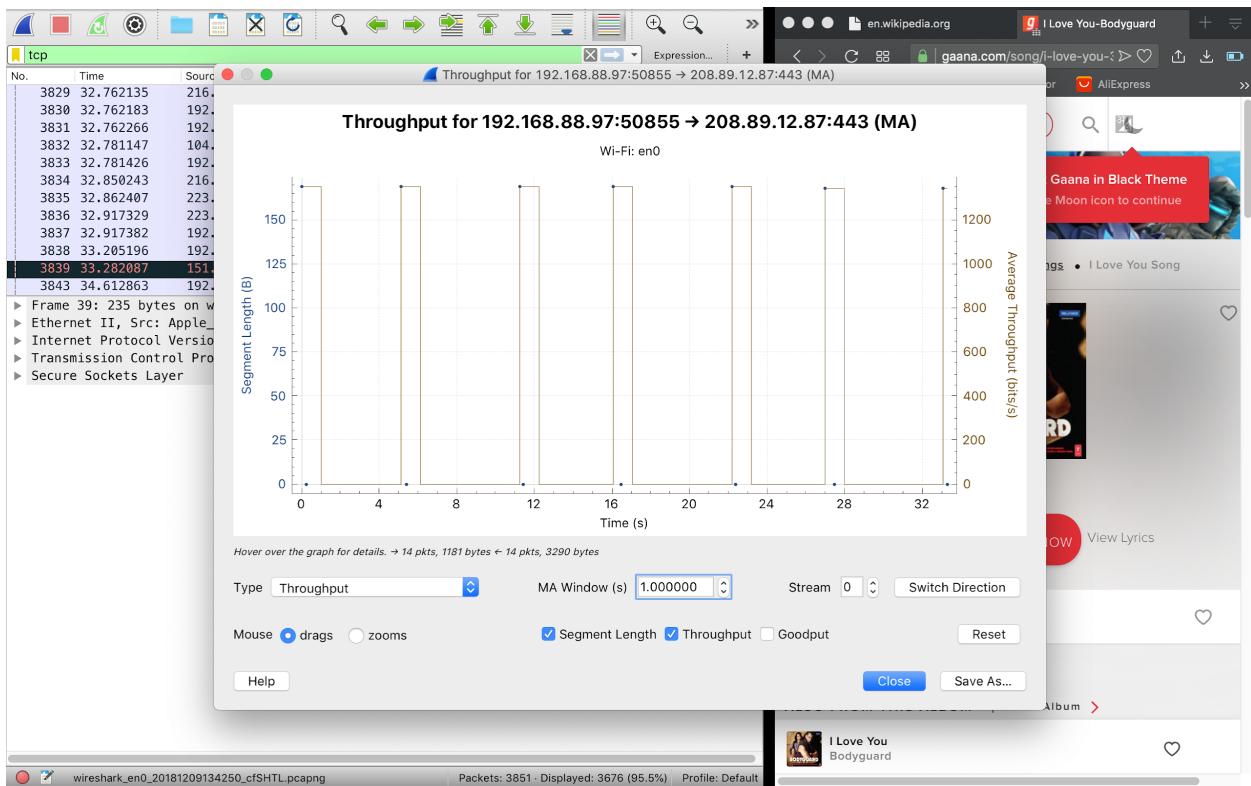
- TCP, UDP, IPV4, TLS, GQUIC

About retransmission



Yes there was a retransmission during the session using TCP. But I did find any retransmission during UDP

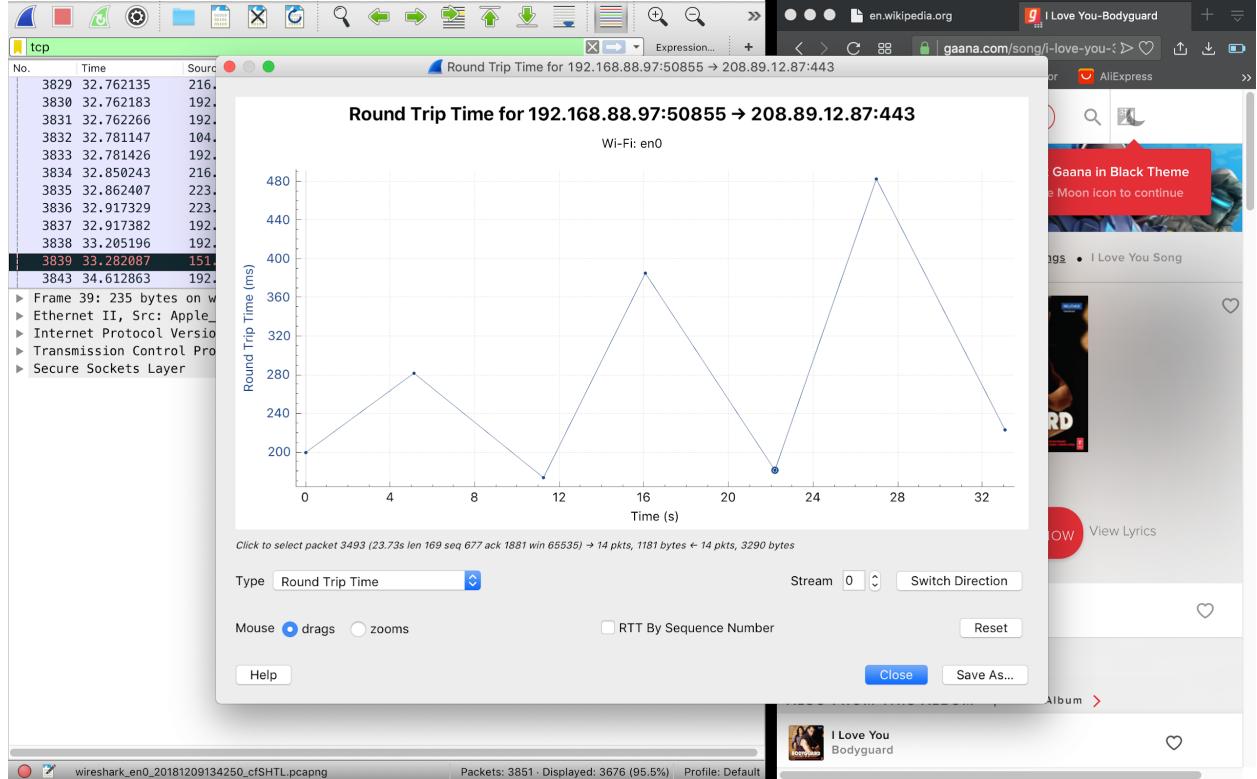
Question 3



Throughput: Throughput which is simply the rate of transmission per second between a host and the client. **Furthermore RTT and the window size can also affect the throughput.**

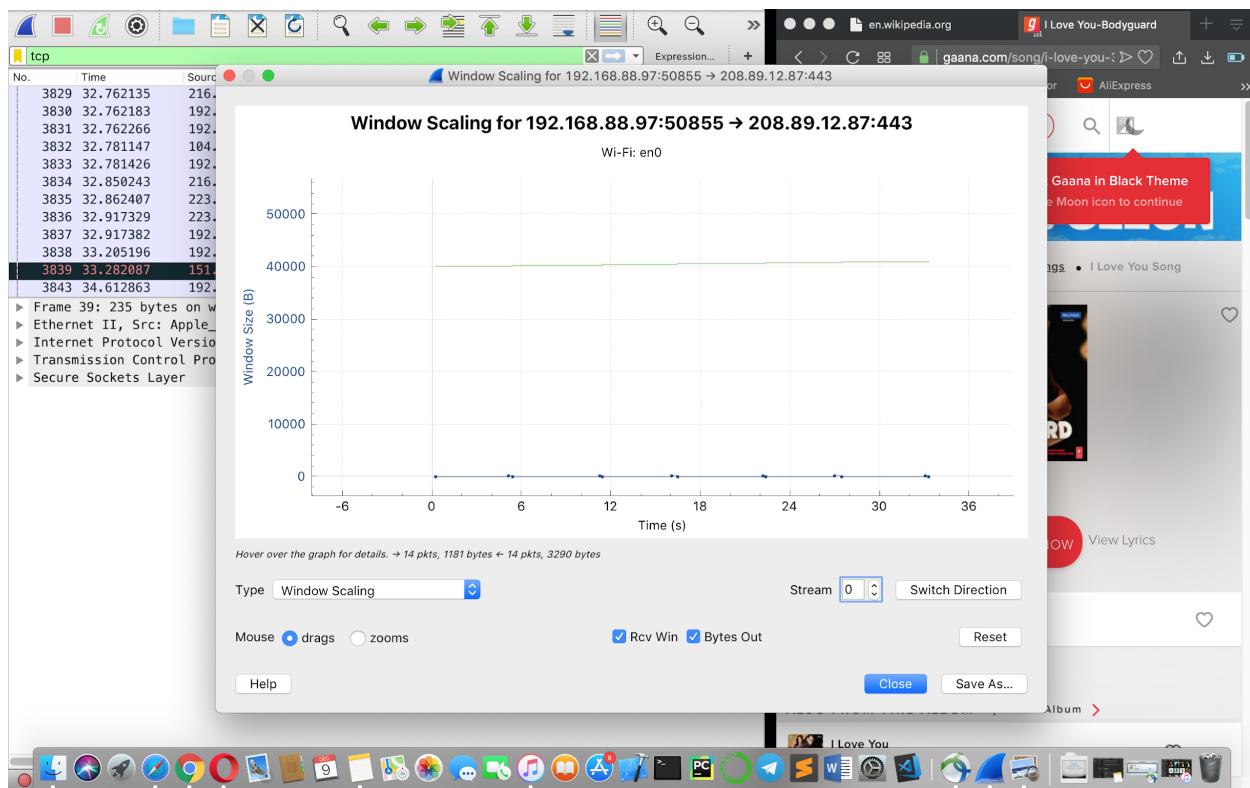
Explanation: In here I have a consistent throughput as the graph shows. The reasons of this include the fact the the RTT and the window size did not change much. Furthermore since the

sender's rate is roughly (congestion window)cwnd/RTT and the throughput did not change it shows that RTT and cwnd did change much.



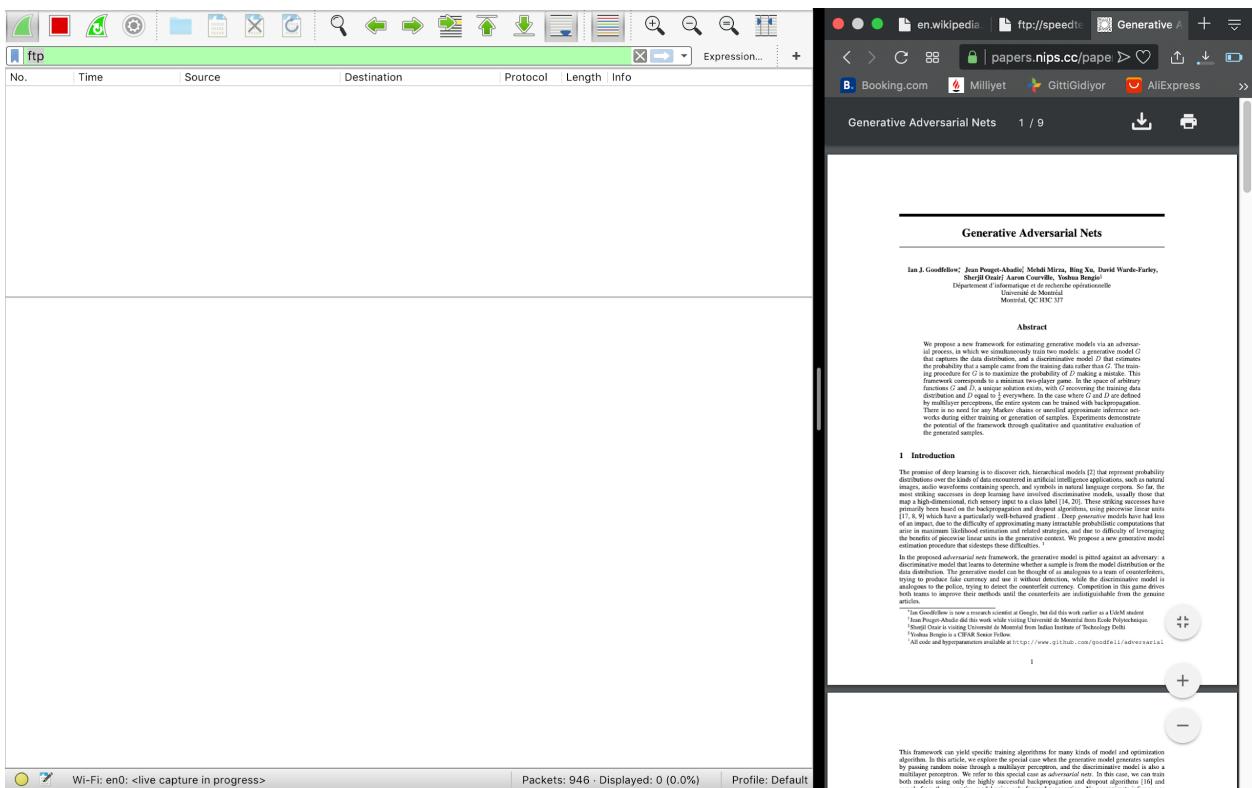
Round Trip time: which is simply the time it takes for a packet for a packet to travel from a client to a host and back to the client.

Explanation: Here at the time goes towards 32'nd second the round trip time tends to increase. There are reasons for the increase of a RTT which include increase traffic levels and increase server response time. Toward the 4th and 16th second the RTT also increase. Furthermore when the RTT is high the throughput also tend to be low as the throughput is a function of the RTT. Moreover the congestion window(cwnd)



Explanation: Here as the time goes toward the 36th second the window size was consistent

Question 4



In the above screenshot I could not capture any ftp packet and the reason is because my browser will actually connect to a proxy server using a http protocol. My browser ask the proxy to get the data from the ftp server. Next the proxy will create an ftp connection with the ftp server. Because of this reason my browser only sees the connection with the proxy server.

Capturing ftp packets

The screenshot shows two windows side-by-side. On the left is the Wireshark interface with a green title bar 'Capturing ftp packets'. The main pane displays a list of captured TCP frames, mostly related to an FTP session between source 192.168.88.97 and destination 90.130.70.73. A detailed frame information pane at the bottom shows a sequence of frames, with frame 116 highlighted. On the right is a web browser window titled 'Index of /' showing a directory listing for 'speedtest.tele2.net'. The listing includes files like '1000GB.zip', '100GB.zip', etc., up to 'upload/'.

FTP REQUEST

This screenshot shows the Wireshark interface with a blue title bar 'FTP REQUEST'. The main pane displays a list of captured TCP frames, primarily showing an FTP session from source 90.130.70.73 to destination 192.168.88.97. The frames represent various commands such as USER, PASS, SYST, PWD, and SIZE. A detailed frame information pane at the bottom shows the sequence of these requests, with frame 9165 highlighted. A note at the bottom indicates that frame 9165 was a response.

FTP RESPONSE

FTP REQUEST FOR 10GB FILE

Frame 9178: 89 bytes on wire (712 bits), 89 bytes captured (712 bits) on interface 0
 Ethernet II, Src: Routerbo_44:a1:15 (d4:ca:6d:44:a1:15), Dst: Apple_10:d7:44 (80:e6:50:10:d7:44)
 Internet Protocol Version 4, Src: 90.130.70.73, Dst: 192.168.88.97
 Transmission Control Protocol, Src Port: 21, Dst Port: 51868, Seq: 55, Ack: 42, Len: 23
 File Transfer Protocol (FTP)
 230 Login successful.\r\n [Current working directory:]

FTP REQUEST FOR 10GB FILE

Frame 9190: 82 bytes on wire (656 bits), 82 bytes captured (656 bits) on interface 0
 Ethernet II, Src: Apple_10:d7:44 (80:e6:50:10:d7:44), Dst: Routerbo_44:a1:15 (d4:ca:6d:44:a1:15)
 Internet Protocol Version 4, Src: 192.168.88.97, Dst: 90.130.70.73
 Transmission Control Protocol, Src Port: 51868, Dst Port: 21, Seq: 61, Ack: 137, Len: 16
 File Transfer Protocol (FTP)
 SIZE /10GB.zip\r\n [Current working directory: /]

FTP RESPONSE OF 10GB FROM THE SERVER

The Wireshark interface is shown with the following details:

- Protocol:** The current protocol selected is **ftp**.
- Columns:** The table displays columns for No., Time, Source, Destination, Protocol, Length, and Info.
- Data:** The table lists 19 entries of network traffic. The last entry (No. 9191) is highlighted in grey. The **Info** column for this entry shows: "Frame 9191: 83 bytes on wire (664 bits), 83 bytes captured (664 bits) on interface 0". Below this, the packet structure is expanded to show:
 - Ethernet II, Src: Routerbo_44:a1:15 (d4:ca:6d:44:a1:15), Dst: Apple_10:d7:44 (80:e6:50:10:d7:44)
 - Internet Protocol Version 4, Src: 90.130.70.73, Dst: 192.168.88.97
 - Transmission Control Protocol, Src Port: 21, Dst Port: 51868, Seq: 137, Ack: 77, Len: 17
 - File Transfer Protocol (FTP)
 - 213 10737418240\r\n
- Details:** A note at the bottom indicates "[Current working directory: /]".

STEPS I UNCOVERED

- **FTP REQUEST:** Here we are sending the user identification to the server for login
- **FTP RESPONSE :** Here the server sends a message about the login
- **FTP REQUEST FOR 10GB FILE:** Here we request a file from the server
- **FTP RESPONSE OF 10GB FROM THE SERVER:** Here we get the request file from the server. This server will be stored in the current directory

Question 5a

According to the wireshark coperation there are 1303 protocols that are supported in wireshark

104apci IEC 60870-5-104-Apci 104apci
 104asdu IEC 60870-5-104-Asdu 104asdu
 2dpriorityfec Pro-MPEG Code of Practice #3 release 2 FEC Protocol 2dpriorityfec
 3COMXNS 3Com XNS Encapsulation 3comxns
 3GPP2 A11 3GPP2 A11 a11
 6LoWPAN IPv6 over IEEE 802.15.4 6lowpan
 802.11 MGT IEEE 802.11 wireless LAN management frame wlan_mgt
 802.11 Radiotap IEEE 802.11 Radiotap Capture header radiotap
 802.3 Slow protocols Slow Protocols slow
 9P Plan 9 9P 9p
 A-bis OML GSM A-bis OML gsm_abis_oml
 AAL1 ATM AAL1 aal1
 AAL3/4 ATM AAL3/4 aal3_4
 AARP Appletalk Address Resolution Protocol aarp
 AASP Astra Signalling Protocol aasp
 ACAP Application Configuration Access Protocol acap

ACN Architecture for Control Networks acn
ACP133 ACP133 Attribute Syntaxes acp133
ACSE ISO 8650-1 OSI Association Control Service acse
Actrace AudioCodes Trunk Trace actrace
ADP Aruba Discovery Protocol adp
ADwin ADwin communication protocol adwin
ADwin-Config ADwin configuration protocol adwin_config
AFP Apple Filing Protocol afp
AFS (RX) Andrew File System (AFS) afs
AgentX AgentX agentx
AH Authentication Header ah
AIM AOL Instant Messenger aim
AIM Administration AIM Administrative aim_admin
AIM Advertisements AIM Advertisements aim_adverts
AIM BOS AIM Privacy Management Service aim_bos
AIM Buddylist AIM Buddylist Service aim_buddylist
AIM Chat AIM Chat Service aim_chat
AIM ChatNav AIM Chat Navigation aim_chatnav
AIM Directory AIM Directory Search aim_dir
AIM Email AIM E-mail aim_email
AIM Generic AIM Generic Service aim_generic
AIM ICQ AIM ICQ aim_icq
AIM Invitation AIM Invitation Service aim_invitation
AIM Location AIM Location aim_location
AIM Messaging AIM Messaging aim_messaging
AIM OFT AIM OFT aimoft
AIM Popup AIM Popup aim_popup
AIM Signon AIM Signon aim_signon
AIM SSI AIM Server Side Info aim_ssi
AIM SST AIM Server Side Themes aim_sst
AIM Stats AIM Statistics aim_stats
AIM Translate AIM Translate aim_translate
AIM User Lookup AIM User Lookup aim_lookup
AiroPeek AiroPeek 802.11 radio information airopeek
AJP13 Apache JServ Protocol v1.3 ajp13
ALC Asynchronous Layered Coding alc
ALCAP AAL type 2 signalling protocol (Q.2630) alcap
AMP Bluetooth AMP Packet btamp
AMQP Advanced Message Queueing Protocol amqp
AMR Adaptive Multi-Rate amr
AMS AMS ams
ANCP Access Node Control Protocol ancp
ANS Intel ANS probe ans
ANSI BSMAP ANSI A-I/F BSMAP ansi_a_bsmap
ANSI DTAP ANSI A-I/F DTAP ansi_a_dtap
ANSI IS-637-A Teleservice ANSI IS-637-A (SMS) Teleservice Layer ansi_637_tele
ANSI IS-637-A Transport ANSI IS-637-A (SMS) Transport Layer ansi_637_trans
ANSI IS-683 (OTA (Mobile)) ANSI IS-683 (OTA (Mobile)) ansi_683
ANSI IS-801 (Location Services (PLD)) ANSI IS-801 (Location Services (PLD)) ansi_801
ANSI MAP ANSI Mobile Application Part ansi_map
ANSI_TCAP ANSI Transaction Capabilities Application Part ansi_tcap

AODV Ad hoc On-demand Distance Vector Routing Protocol aodv
AOE ATAoverEthernet aoe
AppleMIDI Apple Network-MIDI Session Protocol applemidi
ARCNET ARCNET arcnet
Armagetronad The Armagetron Advanced OpenGL Tron clone armagetronad
ARP/RARP Address Resolution Protocol arp
ARTNET Art-Net artnet
ARUBA_ERM ARUBA encapsulated remote mirroring aruba_erm
ASAP Aggregate Server Access Protocol asap
ASF Alert Standard Forum asf
ASN1 ASN.1 decoding asn1
ASP AppleTalk Session Protocol asp
AT AT Command at
ATM Asynchronous Transfer Mode atm
ATM Cell ATM Cell mplspwatmcell
ATM LANE ATM LAN Emulation lane
ATMTCP ATM over TCP atmtcp
ATP AppleTalk Transaction Protocol packet atm
ATSVC Microsoft AT-Scheduler Service atsvc
Auto-RP Cisco Auto-RP auto_rp
AVS WLANCAP AVS WLAN Capture header wlancap
AX4000 AX/4000 Test Block ax4000
AYIYA Anything in Anything Protocol ayiya
Babel Babel Routing Protocol babel
BACapp Building Automation and Control Network APDU bacapp
BACnet Building Automation and Control Network NPDU bacnet
BACnet MS/TP BACnet MS/TP mstp
Banana Twisted Banana banana
Basic Format XID Logical-Link Control Basic Format XID basicxid
BAT B.A.T.M.A.N. Layer 3 Protocol bat
BATADV B.A.T.M.A.N. Advanced Protocol batadv
Bazaar Bazaar Smart Protocol bzs
BCTP BCTP Q.1990 bctp
BEEP Blocks Extensible Exchange Protocol beep
BER Basic Encoding Rules (ASN.1 X.690) ber
BFCP Binary Floor Control Protocol bfcp
BFD Control Bidirectional Forwarding Detection Control Message bfd
BGP Border Gateway Protocol bgp
BICC Bearer Independent Call Control bicc
BitTorrent BitTorrent bittorrent
BJNP Canon BJNP bjnp
BMC Broadcast/Multicast Control bmc
Boardwalk Boardwalk brdwlk
BOFL Wellfleet Breath of Life bofl
BOOTP/DHCP Bootstrap Protocol bootp
BOOTPARAMS Boot Parameters bootparams
BOSSVR DCE DFS Basic Overseer Server bossvr
BROWSER Microsoft Windows Browser Protocol browser
BRP BRP Protocol brp
BSSAP BSSAP/BSAP bssap
BSSGP Base Station Subsystem GPRS Protocol bssgp

BSSLAP BSS LCS Assistance Protocol bsslap
BT-DHT BitTorrent DHT Protocol bt-dht
BT-uTP uTorrent Transport Protocol bt-utp
BTDUN Bluetooth DUN Packet btdun
BTHF Bluetooth Handsfree Packet bthf
BTSDP Bluetooth SDP Protocol btsdp
BTSPPP Bluetooth SPP Packet btspp
BUDB DCE/DFS BUDB budb
Bundle Bundle Protocol bundle
BUTC DCE/RPC BUTC butc
BVLC BACnet Virtual Link Control bvlc
C12.22 ANSI C12.22 c1222
CalcAppProtocol Calculation Application Protocol calcappprotocol
CAMEL Camel camel
CAN Controller Area Network can
CANOPEN CANopen canopen
CAPWAP Control And Provisioning of Wireless Access Points capwap
CAST Cast Client Control Protocol cast
CCSDS CCSDS ccsds
CCSRL H.324/CCSRL ccsrl
CDP Cisco Discovery Protocol cdp
CDS_CLERK CDS Clerk Server Calls cds_clerkserver
cds_solicit DCE/RPC CDS Solicitation cds_solicit
CDT Compressed Data Type cdt
CESoPSN basic (no RTP) CESoPSN basic NxDS0 mode (no RTP support) pwcesopsn
CFLOW Cisco NetFlow/IPFIX cflow
CFM CFM EOAM 802.1ag/ITU Protocol cfm
CFP Cisco FabricPath cfp
CGMP Cisco Group Management Protocol cgmp
ChargingASE Charging ASE chargingase
CHDLC Cisco HDLC chdlc
CIGI Common Image Generator Interface cigi
CIMD Computer Interface to Message Distribution cimd
Cimetrics MS/TP Cimetrics MS/TP cimetrics
CIP Common Industrial Protocol cip
CIP Motion Common Industrial Protocol, Motion cipm
CIP Safety Common Industrial Protocol, Safety cipsafety
CIPCCO CIP Connection Configuration Object cipcco
CIPCLS CIP Class Generic cipcls
CIPCM CIP Connection Manager cipcm
CIPMB CIP Modbus Object cipmb
CIPSSupervisor CIP Safety Supervisor cipssupervisor
CIPSValidator CIP Safety Validator cipsvalidator
CLACSE ISO 10035-1 OSI Connectionless Association Control Service clacse
CLASSICSTUN Simple Traversal of UDP Through NAT classicstun
CLDAP Connectionless Lightweight Directory Access Protocol cldap
CLEARCASE Clearcase NFS clearcase
CLNP ISO 8473 CLNP ConnectionLess Network Protocol clnp
CLPRES ISO 9576-1 OSI Connectionless Presentation Protocol clpres
CLSP ISO 9548-1 OSI Connectionless Session Protocol clsp
CLTP ISO 8602 CLTP ConnectionLess Transport Protocol cltp

CMIP X711 CMIP cmip
CMP Certificate Management Protocol cmp
CMPP China Mobile Point to Point Protocol cmpp
CMS Cryptographic Message Syntax cms
CN/IP Component Network over IP cnip
COAP Constrained Application Protocol coop
collectd collectd network data collectd
ComponentStatusProtocol Component Status Protocol componentstatusprotocol
CONV DCE/RPC Conversation Manager conv
COPS Common Open Policy Service cops
COSEVENTCOMM Coseventcomm Dissector Using GIOP API giop-coseventcomm
CoSine CoSine IPNOS L2 debug output cosine
COSNAMING Cosnaming Dissector Using GIOP API giop-cosnaming
COTP ISO 8073 COTP Connection-Oriented Transport Protocol cotp
CPFI Cross Point Frame Injector cpfi
CPHA Check Point High Availability Protocol cpha
cprpc_server DNS Control Program Server cprpc_server
CredSSP Credential Security Support Provider credssp
CRMF Certificate Request Message Format crmf
CRTP CRTP crtpp
CSM_ENCAPS CSM_ENCAPS csm_encaps
CTDB Cluster TDB ctdb
CUPS Common Unix Printing System (CUPS) Browsing Protocol cups
CWIDS Cisco Wireless IDS Captures cwids
DAAP Digital Audio Access Protocol daap
DAP X.519 Directory Access Protocol dap
Data Data data
DAYTIME Daytime Protocol daytime
DB-LSP Dropbox LAN sync Protocol db-lsp
DB-LSP-DISC Dropbox LAN sync Discovery Protocol db-lsp-disc
dc Dublin Core Metadata (DC) dc
DCC Distributed Checksum Clearinghouse protocol dcc
DCCP Datagram Congestion Control Protocol dccp
dce_update DCE/RPC UpServer dce_update
DCERPC Distributed Computing Environment / Remote Procedure Call (DCE/RPC) dcerpc
DCOM DCOM dcom
DCP (ETSI) ETSI Distribution & Communication Protocol (for DRM) dcp-etsi
DCP-AF DCP Application Framing Layer dcp-af
DCP-PFT DCP Protection, Fragmentation & Transport Layer dcp-pft
DCP-TPL DCP Tag Packet Layer dcp-tpl
DCT2000 Catapult DCT2000 packet dct2000
DDP Datagram Delivery Protocol ddp
DDTP Dynamic DNS Tools Protocol ddtp
DEC_DNA DEC DNA Routing Protocol dec_dna
DEC_STP DEC Spanning Tree Protocol dec_stp
DECT DECT Protocol dect
DHCPFO DHCP Failover dhcpfo
DHCPv6 DHCPv6 dhcipv6
DIAMETER Diameter Protocol diameter
Diameter3GPP Diameter 3GPP diameter3gpp
DICOM DICOM dicom

DIS Distributed Interactive Simulation dis
DISP X.519 Directory Information Shadowing Protocol disp
DISTCC Distcc Distributed Compiler distcc
DLM3 Distributed Lock Manager dlm3
DLR Device Level Ring dlr
DLSw Data Link SWitching dlsw
DLT_USER DLT User user_dlt
DMP Direct Message Profile dmp
DMX DMX dmx
DMX Channels DMX Channels dmx-chan
DMX SIP DMX SIP dmx-sip
DMX Test Frame DMX Test Frame dmx-test
DMX Text Frame DMX Text Frame dmx-text
DNP 3.0 Distributed Network Protocol 3.0 dnp3
DNS Domain Name Service dns
DNSSERVER DNS Server dnsserver
DOCSIS DOCSIS 1.1 docsis
DOCSIS B-INT-RNG-REQ DOCSIS Bonded Initial Ranging Message docsis_bintrngreq
DOCSIS BPBM-ATTR DOCSIS Baseline Privacy Key Management Attributes docsis_bpkmattr
DOCSIS BPBM-REQ DOCSIS Baseline Privacy Key Management Request docsis_bpkmreq
DOCSIS BPBM-RSP DOCSIS Baseline Privacy Key Management Response docsis_bpkmrsp
DOCSIS CM-CTRL TLVs DOCSIS CM-CTRL TLV's cmctrl_tlv
DOCSIS CM-CTRL-REQ DOCSIS CM Control Request docsis_cmctrlreq
DOCSIS CM-CTRL-RSP DOCSIS CM Control Response docsis_cmctrlrsp
DOCSIS CM-STATUS DOCSIS CM-STATUS Report docsis_cmstatus
DOCSIS DBC-ACK DOCSIS Dynamic Bonding Change Acknowledge docsis_dbcack
DOCSIS DBC-REQ DOCSIS Dynamic Bonding Change Request docsis_dbcreq
DOCSIS DBC-RSP DOCSIS Dynamic Bonding Change Response docsis_dbcrsp
DOCSIS DCC-ACK DOCSIS Downstream Channel Change Acknowledge docsis_dccack
DOCSIS DCC-REQ DOCSIS Downstream Channel Change Request docsis_dccreq
DOCSIS DCC-RSP DOCSIS Downstream Channel Change Response docsis_dccrsp
DOCSIS DCD DOCSIS Downstream Channel Descriptor docsis_dcd
DOCSIS DPV-REQ DOCSIS Path Verify Request docsis_dpvreq
DOCSIS DPV-RSP DOCSIS Path Verify Response docsis_dpvrsp
DOCSIS DSA-ACK DOCSIS Dynamic Service Addition Acknowledge docsis_dsaack
DOCSIS DSA-REQ DOCSIS Dynamic Service Addition Request docsis_dsareq
DOCSIS DSA-RSP DOCSIS Dynamic Service Addition Response docsis_dsarsp
DOCSIS DSC-ACK DOCSIS Dynamic Service Change Acknowledgement docsis_dscack
DOCSIS DSC-REQ DOCSIS Dynamic Service Change Request docsis.dscreq
DOCSIS DSC-RSP DOCSIS Dynamic Service Change Response docsis_dscrsp
DOCSIS DSD-REQ DOCSIS Dynamic Service Delete Request docsis_dsdreq
DOCSIS DSD-RSP DOCSIS Dynamic Service Delete Response docsis_dsdrsp
DOCSIS INT-RNG-REQ DOCSIS Initial Ranging Message docsis_intrngreq
DOCSIS MAC MGMT DOCSIS Mac Management docsis_mgmt
DOCSIS MAP DOCSIS Upstream Bandwidth Allocation docsis_map
DOCSIS Mdd DOCSIS Mac Domain Description docsis_mdd
DOCSIS REG-ACK DOCSIS Registration Acknowledge docsis_regack
DOCSIS REG-REQ DOCSIS Registration Requests docsis_Regreq
DOCSIS Reg-Req-Mp DOCSIS Registration Request Multipart docsis_Regreqmp
DOCSIS REG-RSP DOCSIS Registration Responses docsis_regrsp
DOCSIS Reg-Rsp-Mp DOCSIS Registration Response Multipart docsis_Regrspmp

DOCSIS RNG-REQ DOCSIS Range Request Message docsis_rngreq
DOCSIS RNG-RSP DOCSIS Ranging Response docsis_rngrsp
DOCSIS Sync DOCSIS Synchronisation Message docsis_sync
DOCSIS TLVs DOCSIS Appendix C TLV's docsis_tlv
DOCSIS type29ucd DOCSIS Upstream Channel Descriptor Type 29 docsis_type29ucd
DOCSIS UCC-REQ DOCSIS Upstream Channel Change Request docsis_uccreq
DOCSIS UCC-RSP DOCSIS Upstream Channel Change Response docsis_uccrsp
DOCSIS UCD DOCSIS Upstream Channel Descriptor docsis_ucd
DOCSIS VSIF DOCSIS Vendor Specific Encodings docsis_vsif
DOP X.501 Directory Operational Binding Management Protocol dop
DPLAY DirectPlay Protocol dplay
DPNSS Digital Private Signalling System No 1 dpnss
DPNSS Link Digital Private Signalling System No 1 Link Layer dpnss_link
DRDA DRDA drda
DRSUAPI DRSUAPI drsuapi
DSI Data Stream Interface dsi
DSP X.519 Directory System Protocol dsp
DSSETUP Active Directory Setup dssetup
DTLS Datagram Transport Layer Security dtls
DTP Dynamic Trunking Protocol dtp
DTPT DeskTop PassThrough Protocol dtpt
DTSPROVIDER DCE Distributed Time Service Provider dtsprovider
DTSSTIME_REQ DCE Distributed Time Service Local Server dtsstime_req
DUA DPNSS/DASS2-User Adaptation Layer dua
DVB AIT DVB Application Information Table dvb_ait
DVB BAT DVB Bouquet Association Table dvb_bat
DVB EIT DVB Event Information Table dvb_eit
DVB NIT DVB Network Information Table dvb_nit
DVB SDT DVB Service Description Table dvb_sdt
DVB TDT DVB Time and Date Table dvb_tdt
DVB TOT DVB Time Offset Table dvb_tot
DVB-CI DVB Common Interface dvb-ci
DVB-DATA MPE DVB-DATA MultiProtocol Encapsulation dvb_data_mpe
DVMRP Distance Vector Multicast Routing Protocol dvmrp
E.164 ITU-T E.164 number e164
E.212 ITU-T E.212 number e212
E100 E100 Encapsulation e100
EAP Extensible Authentication Protocol eap
EAPOL 802.1X Authentication eapol
ECAT EtherCAT datagram(s) ecat
ECAT_MAILBOX EtherCAT Mailbox Protocol ecat_mailbox
ECHO Echo echo
ECP ECP Protocol ectp
EDONKEY eDonkey Protocol edonkey
EDP Extreme Discovery Protocol edp
EFS EFS (pidl) efs
EGD Ethernet Global Data egd
EHS EHS ehs
EIGRP Enhanced Interior Gateway Routing Protocol eigrp
ELCOM ELCOM Communication Protocol elcom
ENC OpenBSD Encapsulating device enc

ENIP EtherNet/IP (Industrial Protocol) enip
ENRP Endpoint Handlespace Redundancy Protocol enrپ
ENTTEC ENTTEC enttec
EPL Ethernet POWERLINK epl
EPL_V1 ETHERNET Powerlink V1.0 epl_v1
EPM DCE/RPC Endpoint Mapper epm
EPMD Erlang Port Mapper Daemon epmd
EPMv4 DCE/RPC Endpoint Mapper v4 epm4
ERF Extensible Record Format erf
Ericsson HDLC as used in A-bis over IP Ericsson HDLC ehdlc
Ericsson OML Ericsson A-bis OML gsm_abis_om2000
ErIDP Erlang Distribution Protocol erldp
ERSPAN Encapsulated Remote Switch Packet ANalysis erspan
ESG Bootstrap ETSI IPDC Bootstrap dvb_ipdc
ESIO SAIA Ether-S-I/O protocol esio
ESIS ISO 9542 ESIS Routeing Information Exchange Protocol esis
ESL EtherCAT Switch Link esl
ESP Encapsulating Security Payload esp
ESS Extended Security Services ess
ETCH Apache Etch Protocol etch
ETHERCAT EtherCAT frame header ethercat
ETHERIP Ethernet over IP etherip
Ethernet Ethernet eth
Ethernet PW (CW heuristic) Ethernet PW (CW heuristic) pwethheuristic
Ethernet PW (no CW) Ethernet PW (no CW) pwethnocw
Ethernet PW (with CW) PW Ethernet Control Word pwethcw
ETSI CAT Card Application Tookit ETSI TS 102.223 etsi_cat
ETV-AM DDB ETV-AM DDB Section etv-ddb
ETV-AM DII ETV-AM DII Section etv-dii
ETV-AM EISS ETV-AM EISS Section eiss
EVENTLOG Event Logger eventlog
EVRC Enhanced Variable Rate Codec evrc
EXEC Remote Process Execution exec
FB/IB GDS DB Firebird SQL Database Remote Protocol gdsdb
FC Fibre Channel fc
FC ELS FC Extended Link Svc fcels
FC FZS Fibre Channel Fabric Zone Server fcfzs
FC-dNS Fibre Channel Name Server fcdns
FC-FCS FC Fabric Configuration Server fcs
FC-SB3 Fibre Channel Single Byte Command sb3
FC-SP Fibre Channel Security Protocol fcsp
FC-SWILS Fibre Channel SW_ILS swils
FC_CT Fibre Channel Common Transport fcct
FCGI FastCGI fcgi
FCoE Fibre Channel over Ethernet fcoe
FCoIB Fibre Channel over Infiniband fcoib
FCP Fibre Channel Protocol for SCSI fcp
FCSof Fibre Channel Delimiters fcsof
FDDI Fiber Distributed Data Interface fddi
FEFD Far End Failure Detection fefd
FeliCa Sony FeliCa felica

FF FOUNDATION Fieldbus ff
Fibre Channel over IP FCIP fcip
FILEEXP DCE DFS File Exporter fileexp
FIP FCoE Initialization Protocol fip
FIX Financial Information eXchange Protocol fix
FLDB DCE DFS Fileset Location Server fldb
FLIP NSN FLIP flip
FMP File Mapping Protocol fmp
FMP/NOTIFY File Mapping Protocol Nofity fmp_notify
FMTP Flight Message Transfer Protocol (FMTP) fmtp
FP FP fp
FP Hint FP Hint fp_hint
FR Frame Relay fr
FractalGeneratorProtocol Fractal Generator Protocol fractalgeneratorprotocol
Frame Frame frame
Frame Relay DLCI PW PW Frame Relay DLCI Control Word pwfr
FRSAPI Microsoft File Replication Service API frsapi
FRSRPC File Replication Service frsrpc
FRSTRANS File Replication Service DFS-R frstrans
FTAM ISO 8571 FTAM ftam
FTP File Transfer Protocol (FTP) ftp
FTP-DATA FTP Data ftp-data
FTSERVER FTServer Operations ftserver
FW-1 Checkpoint FW-1 fw1
G.723 G.723 g723
Gadu-Gadu Gadu-Gadu Protocol gadu-gadu
Generic PW (with CW) PW MPLS Control Word (generic/preferred) pwmcw
GIF image Compuserve GIF image-gif
giFT giFT Internet File Transfer gift
GIOP General Inter-ORB Protocol giop
GIT Git Smart Protocol git
GLBP Gateway Load Balancing Protocol glbp
Gluster CLI Gluster CLI gluster.cli
Gluster Dump Gluster Dump gluster.dump
Gluster Portmap Gluster Portmap gluster.pmap
GlusterD Gluster Daemon glusterd
GlusterD Brick Gluster Daemon Brick Operations glusterd.brick
GlusterD Friend Gluster Daemon Friend Operations glusterd.friend
GlusterD Management Gluster Daemon Management glusterd.mgmt
GlusterFS GlusterFS glusterfs
GlusterFS Callback GlusterFS Callback glusterfs.cbk
GlusterFS Handshake GlusterFS Handshake glusterfs.hndsk
GMHDR Gigamon Header gmhdr
GMR-1 BCCH GEO-Mobile Radio (1) BCCH gmr1_bcch
GMR-1 CCCH GEO-Mobile Radio (1) CCCH gmr1_ccch
GMR-1 Common GEO-Mobile Radio (1) Common gmr1_common
GMR-1 DTAP GEO-Mobile Radio (1) DTAP gmr1_dtap
GMRP GARP Multicast Registration Protocol gmrp
GNM ITU M.3100 Generic Network Information Model gnm
GNUTELLA Gnutella Protocol gnutella
GOOSE GOOSE goose

Gopher Gopher gopher
GPEF GPEF gpef
GPRS-LLC Logical Link Control GPRS llcgprs
GPRS-NS GPRS Network Service gprs-ns
GPRSCDR GPRS CDR gprscdr
GRE Generic Routing Encapsulation gre
Gryphon DG Gryphon Protocol gryphon
GSM BSSMAP GSM A-I/F BSSMAP gsm_a_bssmap
GSM BSSMAP LE Lb-I/F BSSMAP LE gsm_bssmap_le
GSM CBCH GSM Cell Broadcast Channel gsm_cbch
GSM CCCH GSM CCCH gsm_a_ccch
GSM Cell Broadcast Service GSM Cell Broadcast Service gsm_cell_broadcast
GSM COMMON GSM A-I/F COMMON gsm_a_common
GSM DTAP GSM A-I/F DTAP gsm_a_dtap
GSM Management GSM A-I/F GPRS Mobility and Session Management gsm_a_gm
GSM over IP GSM over IP protocol as used by ip.access gsm_ipa
GSM RLC MAC Radio Link Control, Medium Access Control, 3GPP TS44.060 gsm_rlcmac
GSM RP GSM A-I/F RP gsm_a_rp
GSM SACCH GSM SACCH gsm_a_sacch
GSM SIM GSM SIM 11.11 gsm_sim
GSM SMS GSM SMS TPDU (GSM 03.40) gsm_sms
GSM SMS UD GSM Short Message Service User Data gsm-sms-ud
GSM Um GSM Um Interface gsm_um
GSM_MAP GSM Mobile Application gsm_map
GSMTAP GSM Radiotap gsmtap
GSS-API GSS-API Generic Security Service Application Program Interface gss-api
GTP GPRS Tunneling Protocol gtp
GTPv2 GPRS Tunneling Protocol V2 gtpv2
GVCP GigE Vision Control Protocol gvcp
GVRP GARP VLAN Registration Protocol gvrp
H.223 ITU-T Recommendation H.223 h223
H.225.0 H323-MESSAGES h225
H.235 H235-SECURITY-MESSAGES h235
H.245 MULTIMEDIA-SYSTEM-CONTROL h245
H.261 ITU-T Recommendation H.261 h261
H.263 ITU-T Recommendation H.263 h263
H.323 H.323 h323
H.450 H.450 Supplementary Services h450
H.460 H.460 Supplementary Services h460
H.501 H.501 Mobility h501
H1 Sinec H1 Protocol h1
h221nonstd H221NonStandard h221nonstd
H248 H.248 MEGACO h248
H2483GPP H.248 3GPP h2483gpp
H248_2 H.248.2 h248_2
H248AN H.248.7 h248an
H248C H.248 Annex C h248c
H248CHP H.248.10 h248chp
H248E H.248 Annex E h248e
H248Q1950 H.248 Q.1950 Annex A h248q1950
H263P ITU-T Recommendation H.263 RTP Payload header (RFC4629) h263p

H264 H.264 h264
H450.ROS H.450 Remote Operations Apdus h450.ros
HART_IP HART_IP hart_ip
HAZELCAST Hazelcast Wire Protocol hzlcst
HCI_ACL Bluetooth HCI ACL Packet bthci_acl
HCI_CMD Bluetooth HCI Command bthci_cmd
HCI_EVT Bluetooth HCI Event bthci_evt
HCI_H1 Bluetooth HCI hci_h1
HCI_H4 Bluetooth HCI H4 hci_h4
HCI_SCO Bluetooth HCI SCO Packet bthci_sco
HCLNFSFD Hummingbird NFS Daemon hclnfsd
HDCP High bandwidth Digital Content Protection hdcp
HDCPV2 High bandwidth Digital Content Protection version 2 hdcp2
HDFS HDFS Protocol hdfs
HDFSDATA HDFSDATA Protocol hdfsdta
HDLC PW with PPP payload (no CW) HDLC-like framing for PPP pw_hdlc_nocw_hdlc_ppp
HDLC PW, FR port mode (no CW) HDLC PW, FR port mode (no CW) pw_hdlc_nocw_fr
HI2OPERATIONS HI2Operations hi2operations
HIP Host Identity Protocol hip
HNBAP UTRAN Iuh interface HNBAP signalling hnbp
HomePlug HomePlug protocol homeplug
HomePlug AV HomePlug AV protocol homeplug-av
HP_ERM HP encapsulated remote mirroring hp_erm
HPEXT HP Extended Local-Link Control hpext
HPSW HP Switch Protocol hpsw
HPTEAM HP NIC Teaming Heartbeat hpteam
HSR High-availability Seamless Redundancy (IEC62439 Part 3 Chapter 5) hsr
HSR_PRP_SUPERVISION HSR/PRP Supervision (IEC62439 Part 3) hsr_prp_supervision
HSRP Cisco Hot Standby Router Protocol hsrp
HTTP Hypertext Transfer Protocol http
HyperSCSI HyperSCSI hyperscsi
I2C Inter-Integrated Circuit i2c
IAP Information Access Protocol iap
IAPP Inter-Access-Point Protocol iapp
IAx2 Inter-Asterisk eXchange v2 iax2
ICAP Internet Content Adaptation Protocol icap
ICBAAccoCB ICBAAccoCallback cba_acco_cb
ICBAAccoCB2 ICBAAccoCallback2 cba_acco_cb2
ICBAAccoMgt ICBAAccoMgt cba_acco_mgt
ICBAAccoMgt2 ICBAAccoMgt2 cba_acco_mgt2
ICBAAccoServ ICBAAccoServer cba_acco_server
ICBAAccoServ2 ICBAAccoServer2 cba_acco_server2
ICBAAccoServSRT ICBAAccoServerSRT cba_acco_server_srt
ICBAAccoSync ICBAAccoSync cba_acco_sync
ICBABrowse ICBABrowse cba_browse
ICBABrowse2 ICBABrowse2 cba_browse2
ICBAGErr ICBAGroupError cba_grouperror
ICBAGErrEvent ICBAGroupErrorEvent cba_grouperror_event
ICBALDev ICBALogicalDevice cba_ldev
ICBALDev2 ICBALogicalDevice2 cba_ldev2
ICBAPDev ICBAPhysicalDevice cba_pdev

ICBAPDev2 ICBAPhysicalDevice2 cba_pdev2
ICBAPDevPC ICBAPhysicalDevicePC cba_pdev_pc
ICBAPDevPCEvent ICBAPhysicalDevicePCEvent cba_pdev_pc_event
ICBAPersist ICBAPersist cba_persist
ICBAPersist2 ICBAPersist2 cba_persist2
ICBARTAuto ICBARTAuto cba_rtauto
ICBARTAuto2 ICBARTAuto2 cba_rtauto2
ICBASState ICBASState cba_state
ICBASStateEvent ICBASStateEvent cba_state_event
ICBASysProp ICBASystemProperties cba_sysprop
ICBATime ICBATime cba_time
ICEP Internet Communications Engine Protocol icep
ICL_RPC DCE DFS ICL RPC icl_rpc
ICMP Internet Control Message Protocol icmp
ICMPv6 Internet Control Message Protocol v6 icmpv6
ICP Internet Cache Protocol icp
ICQ ICQ Protocol icq
IDispatch DCOM IDispatch dispatch
IDMP X.519 Internet Directly Mapped Protocol idmp
IDP Internetwork Datagram Protocol idp
IEEE 802.11 IEEE 802.11 wireless LAN wlan
IEEE 802.11 Aggregate Data IEEE 802.11 wireless LAN aggregate frame wlan_aggregate
IEEE 802.15.4 IEEE 802.15.4 Low-Rate Wireless PAN wpan
IEEE 802.15.4 non-ASK PHY IEEE 802.15.4 Low-Rate Wireless PAN non-ASK PHY wpan-nonask-ph
IEEE 802.1AD IEEE 802.1ad ieee8021ad
IEEE 802.1AH IEEE 802.1ah ieee8021ah
IEEE1722 IEEE 1722 Protocol ieee1722
IEEE1722.1 IEEE 1722.1 Protocol ieee17221
IEEE802a IEEE802a OUI Extended Ethertype ieee802a
iFCP iFCP ifcp
IGAP Internet Group membership Authentication Protocol igap
IGMP Internet Group Management Protocol igmp
IGRP Cisco Interior Gateway Routing Protocol igrp
ILMI ILMI ilmi
IMAP Internet Message Access Protocol imap
IMF Internet Message Format imf
INAP Intelligent Network Application Protocol inap
InfiniBand InfiniBand infiniband
InfiniBand Link InfiniBand Link infiniband_link
Infiniband SDP Infiniband Sockets Direct Protocol ib_sdp
INITSHUTDOWN Init shutdown service initshutdown
IO-RAW TwinCAT IO-RAW ioraw
IOXIDResolver DCOM OXID Resolver oxid
IP/IEEE1394 Apple IP-over-IEEE 1394 ap1394
IPA GSM over IP ip.access CCM sub-protocol ipaccess
IPARS International Passenger Airline Reservation System ipars
IPCComp IP Payload Compression ipccomp
IPDC IP Device Control (SS7 over IP) ipdc
IPFC IP Over FC ipfc
IPMI Session Intelligent Platform Management Interface (Session Wrapper) ipmi-session
IPMI/ATCA Intelligent Platform Management Interface ipmi

IPNET Solaris IPNET ipnet
IPoIB IP over Infiniband ipoib
IPP Internet Printing Protocol ipp
IPSICL IPSICL ipsictl
IPv4 Internet Protocol Version 4 ip
IPv6 Internet Protocol Version 6 ipv6
IPVS IP Virtual Services Sync Daemon ipvs
IPX Internetwork Packet eXchange ipx
IPX MSG IPX Message ipxmsg
IPX RIP IPX Routing Information Protocol ipxrip
IPX SAP Service Advertisement Protocol ipxsap
IPX WAN IPX WAN ipxwan
IRC Internet Relay Chat irc
IrCOMM IrCOMM Protocol ircmm
IRemUnknown IRemUnknown remunk
IRemUnknown2 IRemUnknown2 remunk2
IrLAP IrDA Link Access Protocol irlap
IrLMP IrDA Link Management Protocol irlmp
ISAKMP Internet Security Association and Key Management Protocol isakmp
iSCSI iSCSI iscsi
ISDN ISDN isdn
ISIS ISO 10589 ISIS InTRA Domain Routeing Information Exchange Protocol isis
ISL Cisco ISL isl
ISMACRYP ISMACryp Protocol ismacryp
ISMP InterSwitch Message Protocol ismp
iSNS iSNS isns
ISO 7816 ISO/IEC 7816 iso7816
ISUP ISDN User Part isup
ISystemActivator ISystemActivator ISytemActivator Resolver isystemactivator
ITDM Internal TDM itdm
itunes iTunes podCast rss elements itunes
IUA ISDN Q.921-User Adaptation Layer iua
IuUP IuUP iuup
IWARP_DDP_RDMAPI iWARP Direct Data Placement and Remote Direct Memory Access Protocol
iwarpc_ddp_rdmap
IWARP_MPA iWARP Marker Protocol data unit Aligned framing iwarpc_mpa
ixveriwave ixveriwave ixveriwave
JFIF (JPEG) image JPEG File Interchange Format image-jfif
Jmirror Juniper Packet Mirror jmirror
JPEG RFC 2435 JPEG jpeg
JSON JavaScript Object Notation json
Juniper Juniper juniper
JXTA JXTA P2P jxta
JXTA Message JXTA Message jxta.message
K12xx K12xx k12
KADM5 Kerberos Administration kadm5
KDP Kontiki Delivery Protocol kdp
KDSP Kismet Drone/Server Protocol kdsp
Kingfisher Kingfisher kf
KINK Kerberized Internet Negotiation of Key kink
Kismet Kismet Client/Server Protocol kismet

KLM Kernel Lock Manager klm
KNET kNet Protocol knet
Kpasswd MS Kpasswd kpasswd
KRB4 Kerberos v4 krb4
KRB5 Kerberos kerberos
KRB5RPC DCE/RPC Kerberos V krb5rpc
L2CAP Bluetooth L2CAP Protocol bt12cap
L2TP Layer 2 Tunneling Protocol l2tp
LANforge LANforge Traffic Generator lanforge
LANMAN Microsoft Windows Lanman Remote API Protocol lanman
LAPB Link Access Procedure Balanced (LAPB) lapb
LAPBETHER Link Access Procedure Balanced Ethernet (LAPBETHER) lapbether
LAPD Link Access Procedure, Channel D (LAPD) lapd
LAPDm Link Access Procedure, Channel Dm (LAPDm) lapdm
Laplink Laplink laplink
LAPSat Link Access Procedure, Satellite channel (LAPSat) lapsat
Layer 1 Events Layer 1 Event Messages data-l1-events
LCSAP LCS Application Protocol lcsap
LCT H.283 Logical Channel Transport lct
LDAP Lightweight Directory Access Protocol ldap
LDP Label Distribution Protocol ldp
LDSS Local Download Sharing Service ldss
LGE_Monitor LGE Monitor lge_monitor
Line-based text data Line-based text data data-text-lines
LINX ENEA LINX linx
LINX/TCP ENEA LINX over TCP linxtcp
LISP Control Locator/ID Separation Protocol lisp
LISP Data Locator/ID Separation Protocol (Data) lisp-data
list Event Notification for Resource Lists (RFC 4662) list
LLAP LocalTalk Link Access Protocol llap
llb DCE/RPC NCS 1.5.1 Local Location Broker llb
LLC Logical-Link Control llc
LLDP Link Layer Discovery Protocol lldp
LLRP Low Level Reader Protocol llrp
LLT Veritas Low Latency Transport (LLT) llt
LMI Local Management Interface lmi
LMP Link Management Protocol (LMP) lmp
Log Log Message log
LogotypeCertExtn Logotype Certificate Extensions logotypcertextn
LON Local Operating Network lon
LOOP Configuration Test Protocol (loopback) loop
LPD Line Printer Daemon Protocol lpd
LPP LTE Positioning Protocol (LPP) ipp
LPPa LTE Positioning Protocol A (LPPa) ippa
LSARPC Local Security Authority lsarpc
LSC Pegasus Lightweight Stream Control lsc
LTE RRC LTE Radio Resource Control (RRC) protocol lte_rrc
LTP Licklider Transmission Protocol ltp
Lucent/Ascend Lucent/Ascend debug output ascend
LWAPP LWAPP Encapsulated Packet lwapp
LWAPP-CNTL LWAPP Control Message lwapp-cntl

LWAPP-L3 LWAPP Layer 3 Packet lwapp-l3
LWRES Light Weight DNS RESolver (BIND9) lwres
M2M (m2m) WiMax Mac to Mac Packet m2m
M2PA MTP2 Peer Adaptation Layer m2pa
M2TP MTP 2 Transparent Proxy m2tp
M2UA MTP 2 User Adaptation Layer m2ua
M3AP M3 Application Protocol m3ap
M3UA MTP 3 User Adaptation Layer m3ua
MAAP IEEE 1722 MAAP Protocol maap
MAC MAC mac
MAC-LTE MAC-LTE mac-lte
MAC-LTE-FRAMED mac-lte-framed mac-lte-framed
MAC-Telnet MikroTik MAC-Telnet Protocol mactelnet
MACC MAC Control macc
Malformed packet Malformed Packet malformed
Manolito Blubster/Piolet MANOLITO Protocol manolito
MAPI Exchange 5.5 EMSMDB mapi
MATE Meta Analysis Tracing Engine mate
MDS Header MDS Header mdshdr
Media Media Type media
MEGACO MEGACO megaco
MEMCACHE Memcache Protocol memcache
Mesh Mesh Header mesh
message/http Media Type: message/http message-http
Messenger Microsoft Messenger Service messenger
META Metadata meta
MGCP Media Gateway Control Protocol mgcp
MGMT DCE/RPC Remote Management mgmt
MiFare NXP MiFare mifare
MIKEY Multimedia Internet KEYing mikey
MIME multipart MIME Multipart Media Encapsulation mime_multipart
MIME_FILE MIME file mime_dlt
MIOP Unreliable Multicast Inter-ORB Protocol miop
MIPv6 Mobile IPv6 / Network Mobility mipv6
MMS MMS mms
MMSE MMS Message Encapsulation mmse
MNDP Mikrotik Neighbor Discovery Protocol mndp
Mobile IP Mobile IP mip
Modbus Modbus modbus
Modbus/TCP Modbus/TCP mbtcp
MoldUDP MoldUDP moldudp
MoldUDP64 MoldUDP64 moldudp64
MONGO Mongo Wire Protocol mongo
MOUNT Mount Service mount
MP2T ISO/IEC 13818-1 mp2t
MP4V-ES MP4V-ES mp4v-es
MPEG Moving Picture Experts Group mpeg
MPEG Audio Moving Picture Experts Group Audio mpeg_audio
MPEG CA MPEG2 Conditional Access Table mpeg_ca
MPEG Descriptor MPEG2 Descriptors mpeg_descr
MPEG DSM-CC MPEG DSM-CC mpeg-dsmcc

MPEG PAT MPEG2 Program Association Table mpeg_pat
MPEG PES Packetized Elementary Stream mpeg_pes
MPEG PMT MPEG2 Program Map Table mpeg_pmt
MPEG SECT MPEG2 Section mpeg_sect
MPEG1 RFC 2250 MPEG1 mpeg1
MPLS MultiProtocol Label Switching Header mpls
MPLS Delay Measurement (DM) MPLS Delay Measurement (DM) mplspmdm
MPLS Direct Loss and Delay Measurement (DLM+DM) MPLS Direct Loss and Delay Measurement (DLM+DM) mplspmdlmdm
MPLS Direct Loss Measurement (DLM) MPLS Direct Loss Measurement (DLM) mplspdilm
MPLS Echo Multiprotocol Label Switching Echo mpls-echo
MPLS Inferred Loss and Delay Measurement (ILM+DM) MPLS Inferred Loss and Delay Measurement (ILM+DM) mplspmilmdm
MPLS Inferred Loss Measurement (ILM) MPLS Inferred Loss Measurement (ILM) mplspmilm
MPLS ITU-T Y.1711 OAM MPLS ITU-T Y.1711 OAM mplsyt1711
MPLS PW ATM 1:1 / AAL5 PDU MPLS PW ATM One-to-One or AAL5 PDU encapsulation
mplspwatm11_or_aal5pdu
MPLS PW ATM AAL5 SDU MPLS PW ATM AAL5 CPCS-SDU mode encapsulation mplspwatmaal5sdu
MPLS PW ATM Cell Header MPLS PW ATM Cell Header mplspwatmcellheader
MPLS PW ATM Control Word MPLS PW ATM Control Word mplspwatmcontrolword
MPLS PW ATM N:1 CW MPLS PW ATM N-to-One encapsulation, with CW mplspwatmn1cw
MPLS PW ATM N:1 no CW MPLS PW ATM N-to-One encapsulation, no CW mplspwatmn1nocw
MPLS[-TP] Protection State Coordination (PSC) Protocol PSC mplspsc
MQ WebSphere MQ mq
MQ PCF WebSphere MQ Programmable Command Formats mqpcf
MRDISC Multicast Router DISCovery protocol mrdisc
MRP-MMRP Multiple Mac Registration Protocol mrp-mmrp
MRP-MSRP Multiple Stream Reservation Protocol mrp-msrp
MRP-MVRP Multiple VLAN Registration Protocol mrp-mvrv
MS NLB MS Network Load Balancing msnlb
MS Proxy MS Proxy Protocol msproxy
mscml Media Server Control Markup Language – draft 07 mscml
MSDP Multicast Source Discovery Protocol msdp
MSMMS Microsoft Media Server msmms
MSNIP MSNIP: Multicast Source Notification of Interest Protocol msnip
MSNMS MSN Messenger Service msnms
MSRP Message Session Relay Protocol msrp
MTP over NW UDP NexusWare C7 MTP nw_mtp
MTP2 Message Transfer Part Level 2 mtp2
MTP3 Message Transfer Part Level 3 mtp3
MTP3MG Message Transfer Part Level 3 Management mtp3mg
MUX27010 MUX27010 Protocol mux27010
MySQL MySQL Protocol mysql
NAS-EPS Non-Access-Stratum (NAS)PDU nas-eps
NASDAQ-ITCH Nasdaq TotalView-ITCH nasdaq_itch
NASDAQ-SOUP Nasdaq-SoupTCP version 2.0 nasdaq_soup
NAT-PMP NAT Port Mapping Protocol nat-pmp
NB_RTPMUX 3GPP Nb Interface RTP Multiplex nb_rtpmux
NBAP UTRAN Iub interface NBAP signalling nbap
NBD Network Block Device nbd
NBDS NetBIOS Datagram Service nbdgm

NBIPX NetBIOS over IPX nbipx
NBNS NetBIOS Name Service nbns
NBP Name Binding Protocol nbp
NBSS NetBIOS Session Service nbss
NCP NetWare Core Protocol ncp
NCS Novell Cluster Services ncs
NDMP Network Data Management Protocol ndmp
NDP Nortel Discovery Protocol ndp
NDPS Novell Distributed Print System ndps
netANALYZER netANALYZER netanalyzer
NetBIOS NetBIOS netbios
NETDFS Settings for Microsoft Distributed File System netdfs
Netdump Netdump Protocol netdump
NetMon 802.11 NetMon 802.11 capture header netmon_802_11
NetPerfMeterProtocol NetPerfMeter Protocol npmp
Netsync Monotone Netsync netsync
nettl HP-UX Network Tracing and Logging nettl
NEWMAIL Microsoft Exchange New Mail Notification newmail
NFLOG Linux Netfilter NFLOG nflog
NFS Network File System nfs
NFSACL NFSACL nfsacl
NFSAUTH NFSAUTH nfsauth
NHRP NBMA Next Hop Resolution Protocol nhrp
NIS+ NIS+ nisplus
NIS+ CB NIS+ Callback nispluscb
NJACK 3com Network Jack njack
NLM Network Lock Manager Protocol nlm
NLSP NetWare Link Services Protocol nlsp
NMAS Novell Modular Authentication Service nmas
NMPI Name Management Protocol over IPX nmpi
NNTP Network News Transfer Protocol nntp
NOE NOE Protocol noe
NORM Negative-acknowledgment Oriented Reliable Multicast norm
NS Trace NetScaler Trace ns
NS_CERT_EXTS NetScape Certificate Extensions ns_cert_exts
NSPI Exchange 5.5 Name Service Provider nsipi
NSRP Juniper Netscreen Redundant Protocol nsrp
NTLMSSP NTLM Secure Service Provider ntlmssp
NTP Network Time Protocol ntp
Null Null/Loopback null
NW_SERIAL NetWare Serialization Protocol nw_serial
OAM AAL ATM OAM AAL oamaal
OBEX Bluetooth OBEX Protocol btobex
OCSP Online Certificate Status Protocol ocsp
OICQ OICQ – IM software, popular in China oicq
OIPF CI+ Open IPTV Forum CSPG-CI+ oipf.ciplus
OLSR Optimized Link State Routing Protocol olsr
OMAPI ISC Object Management API omapi
OMRON-FINS OMRON FINS Protocol omron
OpcUa OpcUa Binary Protocol opcua
openSAFETY openSAFETY opensafety

OpenWire OpenWire openwire
OPSI Open Policy Service Interface opsi
OSI OSI osi
OSPF Open Shortest Path First ospf
P1 X.411 Message Transfer Service p1
P22 X.420 Information Object p22
P3 X.411 Message Access Service p3
P7 X.413 Message Store Service p7
P772 STANAG 4406 Message p772
P_MUL P_Mul (ACP142) p_mul
PacketBB PacketBB Protocol packetbb
PACKETCABLE PacketCable AVPs paketcable_avps
PAGP Port Aggregation Protocol pagp
Paltalk Paltalk Messenger Protocol paltalk
PANA Protocol for carrying Authentication for Network Access pana
PAP Printer Access Protocol apap
PAPI Aruba PAPI papi
PARLAY Parlay Dissector Using GIOP API giop-parlay
PCAP UTRAN Iupc interface Positioning Calculation Application Part (PCAP) pcap
PCEP Path Computation Element communication Protocol pcep
PCLI Packet Cable Lawful Intercept pcli
PCNFSD PC NFS pcnfsd
PCP Performance Co-Pilot pcp
PDCP-LTE PDCP-LTE pdcp-lte
PEEKREMOTE AiroPeek/OmniPeek encapsulated IEEE 802.11 peekremote
PER Packed Encoding Rules (ASN.1 X.691) per
PFLOG OpenBSD Packet Filter log file pflog
PFLOG-OLD OpenBSD Packet Filter log file, pre 3.4 pflog-old
PGM Pragmatic General Multicast pgm
PGSQL PostgreSQL pgsql
PIM Protocol Independent Multicast pim
PingPongProtocol Ping Pong Protocol pingpongprotocol
PKCS-1 PKCS#1 pkcs-1
PKCS12 PKCS#12: Personal Information Exchange pkcs12
PKInit PKINIT pkinit
PKIX Certificate PKIX CERT File Format pkix-cert
PKIX1EXPLICIT PKIX1Explicit pkix1explicit
PKIX1IMPLICIT PKIX1Implit pkix1implicit
PKIXAC PKIX Attribute Certificate pkixac
PKIXPROXY PKIXProxy (RFC3820) pkixproxy
PKIXQUALIFIED PKIX Qualified pkixqualified
PKIXTSP PKIX Time Stamp Protocol pkixtsp
PKT CCC PacketCable Call Content Connection pkt_ccc
Pkt_Comment Packet comments pkt_comment
PKTC PacketCable pktc
PKTGEN Linux Kernel Packet Generator pktgen
PKTLOG PacketLogger packetlogger
PN-DCP PROFINET DCP pn_dcp
PN-MRP PROFINET MRP pn_mrp
PN-MRRT PROFINET MRRT pn_mrرت
PN-PTCP PROFINET PTCP pn_ptcp

PN-RT PROFINET Real-Time Protocol pn_rt
PN532 NXP PN532 pn532
PNG Portable Network Graphics png
PNIO PROFINET IO pn_io
PNP Microsoft Plug and Play service pnp
PNRP Peer Network Resolution Protocol pnrp
poc-settings poc-settings XML doc (RFC 4354) poc-settings
POP Post Office Protocol pop
Portmap Portmap portmap
PPCAP Proprietary PCAP ppcap
PPI PPI Packet Header ppi
PPI antenna Decoder PPI antenna decoder ppi_antenna
PPI GPS Decoder PPI Geotagging GPS tag decoder ppi_gps
PPI sensor Decoder PPI sensor decoder ppi_sensor
PPI vector Decoder PPI vector decoder ppi_vector
PPP Point-to-Point Protocol ppp
PPP BACP PPP Bandwidth Allocation Control Protocol bacp
PPP BAP PPP Bandwidth Allocation Protocol bap
PPP BCP PPP Bridging Control Protocol bcp
PPP CBCP PPP Callback Control Protocol cbcp
PPP CCP PPP Compression Control Protocol ccp
PPP CDPCP PPP CDP Control Protocol cdpcp
PPP CHAP PPP Challenge Handshake Authentication Protocol chap
PPP Comp PPP Compressed Datagram comp_data
PPP IPCP PPP IP Control Protocol ipcp
PPP IPV6CP PPP IPv6 Control Protocol ipv6cp
PPP LCP PPP Link Control Protocol lcp
PPP MP PPP Multilink Protocol mp
PPP MPLSCP PPP MPLS Control Protocol mplscp
PPP OSINLCP PPP OSI Network Layer Control Protocol osinlcp
PPP PAP PPP Password Authentication Protocol pap
PPP PPPMux PPP Multiplexing pppmux
PPP PPPMuxCP PPPMux Control Protocol pppmuxcp
PPP VJ PPP VJ Compression vj
PPP VSNP Vendor Specific Network Protocol vsnp
PPP-HDLC PPP In HDLC-Like Framing ppp_hdlc
PPPoE PPP-over-Ethernet pppo
PPPoED PPP-over-Ethernet Discovery ppoed
PPPoES PPP-over-Ethernet Session ppoes
PPTP Point-to-Point Tunnelling Protocol pptp
PRES ISO 8823 OSI Presentation Protocol pres
presence presence XML doc (RFC 3863) presence
Prism Prism capture header prism
PRP Parallel Redundancy Protocol (IEC62439 Part 3) prp
PTP Precision Time Protocol (IEEE1588) ptp
PVFS Parallel Virtual File System pvfs
PW Associated Channel PW Associated Channel Header pwach
PW Padding Pseudowire Padding pwpadding
Q.2931 Q.2931 q2931
Q.708 ITU-T Q.708 ISPC Analysis q708
Q.931 Q.931 q931

Q.933 Q.933 q933
Q932 Q.932 q932
Q932.ROS Q.932 Operations Service Element q932.ros
QLLC Qualified Logical Link Control qllc
QSIG QSIG qsig
QUAKE Quake Network Protocol quake
QUAKE2 Quake II Network Protocol quake2
QUAKE3 Quake III Arena Network Protocol quake3
QUAKEWORLD QuakeWorld Network Protocol quakeworld
R-STP Retix Spanning Tree Protocol r-stp
R3 Assa Abloy R3 r3
Radio 802.11 radio information radio
RADIUS Radius Protocol radius
RANAP Radio Access Network Application Part ranap
Raw Raw packet data raw
Raw_SigComp Decompressed SigComp message as raw text raw_sigcomp
Raw_SIP Session Initiation Protocol (SIP as raw text) raw_sip
rdaclif DCE/RPC Directory Acl Interface rdaclif
RDC H.282 Remote Device Control rdc
RDM Remote Device Management rdm
RDP Remote Desktop Protocol rdp
RDT Real Data Transport rdt
Redback Redback redback
RedbackLI Redback Lawful Intercept redbackli
reginfo Reginfo XML doc (RFC 3680) reginfo
RELOAD REsource LOcation And Discovery reload
RELOAD FRAMING REsource LOcation And Discovery Framing reload-framing
REMACT DCOM IRemoteActivation remact
REP_PROC DCE DFS Replication Server rep_proc
RFC2190 H.263 RTP Payload header (RFC2190) rfc2190
RFCOMM Bluetooth RFCOMM Protocol btrfcomm
RFR Exchange 2003 Directory Request For Response rfr
RGMP Router-port Group Management Protocol rgmp
RIP Routing Information Protocol rip
RIPng RIPng ripng
RLC Radio Link Control rlc
RLC-LTE RLC-LTE rlc-lte
RLM Redundant Link Management Protocol rlm
Rlogin Rlogin Protocol rlogin
RMCP Remote Management Control Protocol rmcp
RMI Java RMI rmi
RMP HP Remote Maintenance Protocol rmp
RNSAP UTRAN Iur interface Radio Network Subsystem Application Part rnsap
ROHC RObust Header Compression (ROHC) rohc
Roofnet Roofnet Protocol roofnet
ROS X.880 OSI Remote Operations Service ros
override Remote Override interface override
RPC Remote Procedure Call rpc
RPC_BROWSER RPC Browser rpc_browser
RPC_NETLOGON Microsoft Network Logon rpc_netlogon
RPCAP Remote Packet Capture rpcap

RPL Remote Program Load rpl
rpriv Privilege Server operations rpriv
RQUOTA Remote Quota rquota
RRAS Microsoft Routing and Remote Access Service rras
RRC Radio Resource Control (RRC) protocol rrc
RRLP Radio Resource LCS Protocol (RRLP) rrlp
RS_ACCT DCE/RPC RS_ACCT rs_acct
RS_ATTR Registry Server Attributes Manipulation Interface rs_attr
rs_attr_schema DCE/RPC Registry Server Attributes Schema rs_attr_schema
RS_BIND DCE/RPC RS_BIND rs_bind
rs_misc DCE/RPC RS_MISC rs_misc
RS_PGO DCE Name Service rs_pgo
RS_PLCY RS Interface properties rs_plcy
rs_prop_acct DCE/RPC RS_PROP_ACCT rs_prop_acct
rs_prop_acl DCE/RPC Registry server propagation interface – ACLs rs_prop_acl
rs_prop_attr DCE/RPC Prop Attr rs_prop_attr
rs_prop_pgo DCE/RPC Registry server propagation interface – PGO items rs_prop_pgo
rs_prop_plcy DCE/RPC Registry server propagation interface – properties and policies rs_prop_plcy
rs_pwd_mgmt DCE/RPC Registry Password Management rs_pwd_mgmt
RS_REPADM Registry server administration operations. rs_repadm
RS_REPLIST DCE/RPC Repserver Calls rs_replist
rs_repmgr DCE/RPC Operations between registry server replicas rs_repmgr
RS_UNIX DCE/RPC RS_UNIX rs_unix
rsec_login Remote sec_login preauth interface. rsec_login
RSH Remote Shell rsh
RSIP Realm Specific IP Protocol rsip
RSL Radio Signalling Link (RSL) rsl
RSP RMCP Security-extensions Protocol rsp
rss rss rss
RSTAT RSTAT rstat
RSVP Resource ReserVation Protocol (RSVP) rsvp
RSYNC RSYNC File Synchroniser rsync
RTcfg RTcfg rtcfg
RTCP Real-time Transport Control Protocol rtcp
RTmac Real-Time Media Access Control rtmac
RTMP Routing Table Maintenance Protocol rtmp
RTMPT Real Time Messaging Protocol rtmpt
RTP Real-Time Transport Protocol rtp
RTP Event RFC 2833 RTP Event rtpevent
RTP-MIDI RFC 4695/6295 RTP-MIDI rtpmidi
RTPS Real-Time Publish-Subscribe Wire Protocol rtps
RTPS2 Real-Time Publish-Subscribe Wire Protocol 2.x rtps2
RTSE X.228 OSI Reliable Transfer Service rtse
RTSP Real Time Streaming Protocol rtsp
RUA UTRAN Iuh interface RUA signalling rua
RUDP Reliable UDP rudp
RWALL Remote Wall protocol rwall
RX RX Protocol rx
S1AP S1 Application Protocol s1ap
SABP UTRAN IuBC interface SABP signaling sabp
SADMIND SADMIND sadmind

SAMETIME Sametime Protocol sametime
SAMR SAMR (pidl) samr
SAP Session Announcement Protocol sap
SASP Server/Application State Protocol sasp
SAToP (no RTP) SAToP (no RTP support) pwsatopcw
SBCAP SBc Application Part sbcap
SBUS SAIA S-Bus sbus
SCCP Signalling Connection Control Part sccp
SCCPMG Signalling Connection Control Part Management sccpmg
SCoP ZigBee SCoP scop
SCSI SCSI scsi
SCSI_MMC SCSI_MMC scsi_mmc
SCSI OSD SCSI OSD scsi_osd
SCSI_SBC SCSI_SBC scsi_sbc
SCSI_SMC SCSI_SMC scsi_smci
SCSI_SSC SCSI_SSC scsi_ssc
SCTP Stream Control Transmission Protocol sctp
SDH SDH/SONET Protocol sdh
SDLC Synchronous Data Link Control (SDLC) sdlc
SDP Session Description Protocol sdp
SEBEK SEBEK – Kernel Data Capture sebek
SECIDMAP DCE Security ID Mapper secidmap
SERCOS III V1.1 SERCOS III V1.1 siii
Serialization Java Serialization serialization
SES ISO 8327-1 OSI Session Protocol ses
sFlow InMon sFlow sflow
SGI MOUNT SGI Mount Service sgimount
SGSAP SGs Application Part (SGsAP) sgsap
Short frame Short Frame short
SIGCOMP Signaling Compression sigcomp
SIMULCRYPT SIMULCRYPT Protocol simulcrypt
SIP Session Initiation Protocol sip
SIPFRAG Sipfrag sipfrag
SIR Serial Infrared sir
SITA Societe Internationale de Telecommunications Aeronautiques sita
SKINNY Skinny Client Control Protocol skinny
SLARP Cisco SLARP slarp
SliMP3 SliMP3 Communication Protocol slimp3
SLL Linux cooked-mode capture sll
SM Cisco Session Management sm
SMB SMB (Server Message Block Protocol) smb
SMB Mailslot SMB MailSlot Protocol mailslot
SMB Pipe SMB Pipe Protocol pipe
SMB2 SMB2 (Server Message Block Protocol version 2) smb2
SMB_NETLOGON Microsoft Windows Logon Protocol (Old) smb_netlogon
smil Synchronized Multimedia Integration Language smil
SMPP Short Message Peer to Peer smpp
SMRSE Short Message Relaying Service smrse
SMTP Simple Mail Transfer Protocol smtp
SMUX SNMP Multiplex Protocol smux
SNA Systems Network Architecture sna

SNA XID Systems Network Architecture XID sna_xid
SNAETH SNA-over-Ethernet snaeth
SNDCP Subnetwork Dependent Convergence Protocol sndcp
SNDCP XID Subnetwork Dependent Convergence Protocol XID sndcpnid
SNMP Simple Network Management Protocol snmp
Socks Socks Protocol socks
SoulSeek SoulSeek Protocol slsk
Spice Spice protocol spice
SPNEGO Simple Protected Negotiation spnego
SPNEGO-KRB5 SPNEGO-KRB5 spnego-krb5
SPOOLSS Microsoft Spool Subsystem spoolss
SPP Sequenced Packet Protocol spp
SPRAY SPRAY spray
SPX Sequenced Packet eXchange spx
SRP H.324/SRP srp
SRVLOC Service Location Protocol srvloc
SRVSCV Server Service svrsvc
SSCF-NNI SSCF-NNI sscf-nni
SSCOP SSCOP sscop
SSH SSH Protocol ssh
SSL Secure Sockets Layer ssl
SSP Scripting Service Protocol ssp
SSS Novell SecretStore Services sss
STANAG 5066 STANAG 5066 (SIS layer) s5066
StarTeam StarTeam starteam
STAT Network Status Monitor Protocol stat
STAT-CB Network Status Monitor CallBack Protocol statnotify
STP Spanning Tree Protocol stp
STUN Session Traversal Utilities for NAT stun
SUA SS7 SCCP-User Adaptation Layer sua
SV IEC61850 Sampled Values sv
SVCCTL Microsoft Service Control svcctl
Symantec Symantec Enterprise Firewall symantec
SYNC MBMS synchronisation protocol sync
SYNCHROPHASOR IEEE C37.118 Synchrophasor Protocol synphasor
Synergy Synergy synergy
Syslog Syslog message syslog
T.124 GENERIC-CONFERENCE-CONTROL T.124 t124
T.125 MULTIPOINT-COMMUNICATION-SERVICE T.125 t125
T.30 T.30 t30
T.38 T.38 t38
TACACS TACACS tacacs
TACACS+ TACACS+ tacplus
TALI Transport Adapter Layer Interface v1.0, RFC 3094 tali
TANGO Tango Dissector Using GIOP API giop-tango
TAPA Trapeze Access Point Access Protocol tapa
TAPI Microsoft Telephony API Service tapi
TC-NV TwinCAT NV tc_nv
TCAP Transaction Capabilities Application Part tcap
TCP Transmission Control Protocol tcp
TCPCL DTN TCP Convergence Layer Protocol tcpcl

TCPENCAP TCP Encapsulation of IPsec Packets tcpencap
TDMA TDMA RTmac Discipline tdma
TDMoE Digium TDMoE Protocol tdmoe
TDS Tabular Data Stream tds
TeamSpeak2 Teamspeak2 Protocol ts2
TEI_MANAGEMENT TEI Management Procedure, Channel D (LAPD) tei_management
TELINK TEKLINK teklink
TELKONET Telkonet powerline telkonet
TELNET Telnet telnet
Teredo Teredo IPv6 over UDP tunneling teredo
tetra TETRA Protocol tetra
TFTP Trivial File Transfer Protocol tftp
TIME Time Protocol time
TIPC Transparent Inter Process Communication(TIPC) tipc
TiVoConnect TiVoConnect Discovery Protocol tivoconnect
TKN4Int DCE DFS Token Server tkn4int
TN3270 TN3270 Protocol tn3270
TN5250 TN5250 Protocol tn5250
TNEF Transport-Neutral Encapsulation Format tnef
TNS Transparent Network Substrate Protocol tns
Token-Ring Token-Ring tr
TPCP Alteon – Transparent Proxy Cache Protocol tpccp
TPKT TPKT – ISO on TCP – RFC1006 tpkt
TPNCP AudioCodes TPNCP (TrunkPack Network Control Protocol) tpncp
TR MAC Token-Ring Media Access Control trmac
TRILL TRILL trill
TRKSVR Microsoft Distributed Link Tracking Server Service trksrv
TSP Time Synchronization Protocol tsp
TTE TTEthernet tte
TTE PCF TTEthernet Protocol Control Frame tte_pcf
TTP Tiny Transport Protocol ttp
Turbocell Turbocell Header turbocell
Turbocell Aggregate Data Turbocell Aggregate Data turbocell_aggregate
TURNCHANNEL TURN Channel turnchannel
TUXEDO BEA Tuxedo tuxedo
TZSP Tazmen Sniffer Protocol tzsp
UA Universal Alcatel Protocol ua
UA3G UA3G Message ua3g
UASIP UA/SIP Protocol uasip
UAUDP UA/UDP Encapsulation Protocol uaudp
UBIKDISK DCE DFS FLDB UBIK TRANSFER ubikdisk
UBIKVOTE DCE DFS FLDB UBIKVOTE ubikvote
UCP Universal Computer Protocol ucp
UDLD Unidirectional Link Detection udld
UDP User Datagram Protocol udp
UDPENCAP UDP Encapsulation of IPsec Packets udpencap
UDPlite Lightweight User Datagram Protocol udplite
ULP OMA UserPlane Location Protocol ulp
UMA Unlicensed Mobile Access uma
UNISTIM UNISTIM Protocol unistim
Unreassembled fragmented packet Unreassembled Fragmented Packet unreassembled

USB USB usb
USBCCID USB CCID usbccid
USBHID USB HID usbhid
USBHUB USB HUB usbhub
USBMS USB Mass Storage usbms
UTS Unisys Transmittal System uts
V.120 Async data over ISDN (V.120) v120
V5.2 V5.2 v52
V5DL V5 Data Link Layer v5dl
v5ef V5 Envelope Function (v5ef) v5ef
V5UA V5.2-User Adaptation Layer v5ua
VCDU VCDU vcd
VICP LeCroy VICP vicp
Vines ARP Banyan Vines ARP vines_arp
Vines Echo Banyan Vines Echo vines_echo
Vines FRP Banyan Vines Fragmentation Protocol vines_frp
Vines ICP Banyan Vines ICP vines_icp
Vines IP Banyan Vines IP vines_ip
Vines IPC Banyan Vines IPC vines_ipc
Vines LLC Banyan Vines LLC vines_llc
Vines RTP Banyan Vines RTP vines_rtp
Vines SPP Banyan Vines SPP vines_spp
VLAN 802.1Q Virtual LAN vlan
VMLAB VMware Lab Manager vmlab
VNC Virtual Network Computing vnc
VRRP Virtual Router Redundancy Protocol vrrp
VSNCP Vendor Specific Control Protocol vsncp
VSS-Monitoring VSS-Monitoring ethernet trailer vssmonitoring
VTP VLAN Trunking Protocol vtp
Vuze-DHT Vuze DHT Protocol vuze-dht
VXI-11 Async VXI-11 Asynchronous Abort vxi11async
VXI-11 Core VXI-11 Core Protocol vxi11core
VXI-11 Intr VXI-11 Interrupt vxi11intr
VXLAN Virtual eXtensible Local Area Network vxlan
WAI WAI Protocol wai
WAP SIR WAP Session Initiation Request wap-sir
WASSP Wireless Access Station Session Protocol wassp
watcherinfo watcherinfo XML doc (RFC 3858) watcherinfo
waveagent WaveAgent waveagent
WBXML WAP Binary XML wbxml
WCCP Web Cache Communication Protocol wccp
WCP Wellfleet Compression wcp
WebSocket WebSocket websocket
WHDLC Wellfleet HDLC whdlc
WHO Who who
Wi-Fi P2P Wi-Fi Peer-to-Peer wifi_p2p
WiMax (wmx) WiMax Protocol wmx
WiMax AAS-FEEDBACK/BEAM (aas) WiMax AAS-FEEDBACK/BEAM Messages wmx.aas
WiMax ARQ Feedback/Discard/Reset (arq) WiMax ARQ Feedback/Discard/Reset Messages wmx.arq
WiMAX ASN CP WiMAX ASN Control Plane Protocol wimaxasn
WiMax CLK-CMP (clk) WiMax CLK-CMP Message wmx.clk

WiMax DCD/UCD (cd) WiMax DCD/UCD Messages wmx.cd
WiMax DLMAP/ULMAP (map) WiMax DLMAP/ULMAP Messages wmx.map
WiMax DREG-REQ/CMD (dreg) WiMax DREG-REQ/CMD Messages wmx.dreg
WiMax DSA/C/D (ds) WiMax DSA/C/D Messages wmx.ds
WiMax DSX-RVD (dsx) WiMax DSX-RVD Message wmx.dsx
WiMax FPC (fpc) WiMax FPC Message wmx.fpc
WiMax Generic/Type1/Type2 MAC Header (hdr) WiMax Generic/Type1/Type2 MAC Header Messages wmx.hdr
WiMax PKM-REQ/RSP (pkm) WiMax PKM-REQ/RSP Messages wmx.pkm
WiMax PMC-REQ/RSP (pmc) WiMax PMC-REQ/RSP Messages wmx.pmc
WiMax PRC-LT-CTRL (prc) WiMax PRC-LT-CTRL Message wmx.prc
WiMax REG-REQ/RSP (reg) WiMax REG-REQ/RSP Messages wmx.reg
WiMax REP-REQ/RSP (rep) WiMax REP-REQ/RSP Messages wmx.rep
WiMax RES-CMD (res) WiMax RES-CMD Message wmx.res
WiMax RNG-REQ/RSP (rng) WiMax RNG-REQ/RSP Messages wmx.rng
WiMax SBC-REQ/RSP (sbc) WiMax SBC-REQ/RSP Messages wmx.sbc
WiMax Sub-TLV (sub) WiMax Sub-TLV Messages wmx.sub
WINREG Remote Registry Service winreg
WINS-Replication WINS (Windows Internet Name Service) Replication winsrepl
WKSSVC Workstation Service wkssvc
WLANCERTEXTN Wlan Certificate Extension wlancertextn
WLCCP Cisco Wireless LAN Context Control Protocol wlccp
WOL Wake On LAN wol
WOW World of Warcraft wow
WPS Wifi Protected Setup wps
WRETH WSE remote ethernet wreth
WSMP Wave Short Message Protocol(IEEE P1609.3) wsmp
WSP Wireless Session Protocol wsp
WTLS Wireless Transport Layer Security wtls
WTP Wireless Transaction Protocol wtp
WZCSVN Wireless Configuration Service wzcsvn
X.224 ITU-T Rec X.224 x224
X.25 X.25 x25
X.29 X.29 x29
X11 X11 x11
X2AP EUTRAN X2 Application Protocol (X2AP) x2ap
X509AF X.509 Authentication Framework x509af
X509CE X.509 Certificate Extensions x509ce
X509IF X.509 Information Framework x509if
X509SAT X.509 Selected Attribute Types x509sat
xcap-caps XML Configuration Access Protocol Server Capabilities xcap-caps
xcap-error XCAP Error XML doc (RFC 4825) xcap-error
XCSL Call Specification Language (Xcsl) xcsl
XDMCP X Display Manager Control Protocol xdmcp
XMCP eXtensible Messaging Client Protocol xmcp
XML eXtensible Markup Language xml
XMPP XMPP Protocol xmpp
XOT X.25 over TCP xot
XTP Xpress Transport Protocol xtp
XYPLEX Xplex xyplex
YAMI YAMI Protocol yami

YHOO Yahoo Messenger Protocol yhoo
 YMSG Yahoo YMSG Messenger Protocol ymsg
 YPBIND Yellow Pages Bind ypbind
 YPPASSWD Yellow Pages Passwd yppasswd
 YPSERV Yellow Pages Service ypserv
 YPXFR Yellow Pages Transfer ypxfr
 ZEBRA Zebra Protocol zebra
 ZEP ZigBee Encapsulation Protocol zep
 ZigBee APF ZigBee Application Framework zbee.apf
 ZigBee APS ZigBee Application Support Layer zbee.aps
 ZigBee NWK ZigBee Network Layer zbee.nwk
 ZigBee ZCL ZigBee Cluster Library zbee.zcl
 ZigBee ZDP ZigBee Device Profile zbee.zdp
 ZIOP Zipped Inter-ORB Protocol ziop
 ZIP Zone Information Protocol zip
 ZRTP ZRTP zrtp

5b) The specific protocol number of TCP is 6, and specific protocol number of UDP is 17 and the specific protocol number of ICMP is 1. But the problem is that I could not capture them. I was just able to capture TCP, UDP and the ICMP.

TCP

Apply a display filter ... <?> Expression... +

No.	Time	Source	Destination	Protocol	Length	Info
19	4.319364	216.58.212.46	192.168.88.97	UDP	62	443 → 63268 Len=20
20	4.349976	216.58.212.46	192.168.88.97	UDP	62	443 → 63268 Len=20
21	4.543644	216.58.212.46	192.168.88.97	UDP	377	443 → 63268 Len=335
22	4.552917	216.58.212.46	192.168.88.97	UDP	60	443 → 63268 Len=16
23	4.553115	192.168.88.97	216.58.212.46	UDP	70	63268 → 443 Len=28
24	4.596811	HewlettP_d2:59:59	LLDP_Multicast	LLDP	60	TTL = 3601
25	4.832359	192.168.88.97	34.211.243.181	TCP	54	53996 → 443 [ACK] Seq=1 Ack=1 Win=2070 Len=0
26	5.228283	192.168.88.67	192.168.88.255	UDP	305	54915 → 54915 Len=263
27	5.287650	34.211.243.181	192.168.88.97	TCP	66	[TCP ACKed unseen segment] 443 → 53996 [ACK] Seq=1 Ack=2 Win=105 Len=0 TSval=204...
28	5.627104	192.168.88.97	192.168.88.1	PCP v2	102	Map Request
29	5.627796	192.168.88.97	239.255.255.250	SSDP	171	M-SEARCH * HTTP/1.1
30	5.627847	192.168.88.97	192.168.88.1	SSDP	171	M-SEARCH * HTTP/1.1

▶ Frame 25: 54 bytes on wire (432 bits), 54 bytes captured (432 bits) on interface 0
 ▶ Ethernet II, Src: Apple_10:d7:44 (80:e6:50:10:d7:44), Dst: Routerbo_44:a1:15 (d4:ca:6d:44:a1:15)
 ▶ Internet Protocol Version 4, Src: 192.168.88.97, Dst: 34.211.243.181
 ▶ Transmission Control Protocol, Src Port: 53996, Dst Port: 443, Seq: 1, Ack: 1, Len: 0

UDP

Apply a display filter ... <%>/

No.	Time	Source	Destination	Protocol	Length	Info
14	4.239480	192.168.88.97	216.58.212.46	UDP	1392	63268 → 443 Len=1350
15	4.240147	192.168.88.97	216.58.212.46	UDP	1392	63268 → 443 Len=1350
16	4.240148	192.168.88.97	216.58.212.46	UDP	1392	63268 → 443 Len=1350
17	4.240148	192.168.88.97	216.58.212.46	UDP	340	63268 → 443 Len=298
18	4.309827	216.58.212.46	192.168.88.97	UDP	62	443 → 63268 Len=20
19	4.319364	216.58.212.46	192.168.88.97	UDP	62	443 → 63268 Len=20
20	4.349976	216.58.212.46	192.168.88.97	UDP	62	443 → 63268 Len=20
21	4.543644	216.58.212.46	192.168.88.97	UDP	377	443 → 63268 Len=335
22	4.552917	216.58.212.46	192.168.88.97	UDP	60	443 → 63268 Len=16
23	4.553115	192.168.88.97	216.58.212.46	UDP	70	63268 → 443 Len=28
24	4.596811	HewlettP_d2:59:59	LLDP_Multicast	LLDP	60	TTL = 3601
25	4.832359	192.168.88.97	34.211.243.181	TCP	54	53996 → 443 [ACK] Seq=1 Ack=1 Win=2

▶ Frame 19: 62 bytes on wire (496 bits), 62 bytes captured (496 bits) on interface 0
 ▶ Ethernet II, Src: Routerbo_44:a1:15 (d4:ca:6d:44:a1:15), Dst: Apple_10:d7:44 (80:e6:50:10:d7:44)
 ▶ Internet Protocol Version 4, Src: 216.58.212.46, Dst: 192.168.88.97
 ▶ User Datagram Protocol, Src Port: 443, Dst Port: 63268
 ▶ Data (20 bytes)

ICMP

Apply a display filter ... <%>/

No.	Time	Source	Destination	Protocol	Length	Info
37	5.888094	192.168.88.97	192.168.88.1	DNS	101	Standard query 0x270d PTR lb._dns-sd._udp.0.88.168.192.in-addr.arpa
38	5.984957	192.168.88.1	192.168.88.97	ICMP	72	Destination unreachable (Port unreachable)
39	5.984963	192.168.88.1	192.168.88.97	ICMP	198	Destination unreachable (Port unreachable)
40	5.984964	192.168.88.1	192.168.88.97	DNS	101	Standard query response 0x270d No such name PTR lb._dns-sd._udp.0.88.168.192.in-...
41	6.066057	192.168.88.67	192.168.88.255	UDP	305	54915 → 54915 Len=263
42	6.267818	192.168.88.254	239.255.255.250	SSDP	167	M-SEARCH * HTTP/1.1
43	6.476606	192.168.88.254	239.255.255.250	SSDP	167	M-SEARCH * HTTP/1.1
44	6.685470	192.168.88.254	239.255.255.250	SSDP	167	M-SEARCH * HTTP/1.1
45	6.893441	192.168.88.61	192.168.88.255	UDP	86	57621 → 57621 Len=44
46	7.104513	192.168.88.67	192.168.88.255	UDP	305	54915 → 54915 Len=263
47	7.938763	ZyxelCom_d1:fd:6d	Broadcast	0x8899	60	Realtek Layer 2 Protocols
48	8.149091	192.168.88.67	192.168.88.255	UDP	305	54915 → 54915 Len=263

▶ Frame 39: 198 bytes on wire (1584 bits), 198 bytes captured (1584 bits) on interface 0
 ▶ Ethernet II, Src: Routerbo_44:a1:15 (d4:ca:6d:44:a1:15), Dst: Apple_10:d7:44 (80:e6:50:10:d7:44)
 ▶ Internet Protocol Version 4, Src: 192.168.88.1, Dst: 192.168.88.97
 ▶ Internet Control Message Protocol