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Sample Captures

So you're at home tonight, having just installed Wireshark. You want to take the program for a test drive. But your home LAN doesn't have any interesting or exotic packets on it? Here's some goodies to try. Please note that if for some reason your version of Wireshark doesn't have zlib support, you'll have to gunzip any file with a **.gz** extension.

If you don't see what you want here, that doesn't mean you're out of luck; look at some of the other sources listed below, such as <http://www.pcapr.net/>.

How to add a new Capture File

If you want to include a new example capture file, you should attach it to this page (click 'attachments' in header above). In the corresponding text, you might explain what this file is doing and what protocols, mechanisms or events it explains. Links from here to the related protocol pages are also welcome.

Please don't just attach your capture file to the page without putting an attachment link in the page, in the format **attachment:filename.ext**; if you don't put an attachment link in the page, it's not obvious that the capture file is available.

It's also a very good idea to put links on the related protocol pages pointing to your file. Referring to an attachment on this page from another Wiki page requires a link on that other Wiki page in the format **attachment:SampleCaptures/filename.ext**. For an example of this, see the [NetworkTimeProtocol](#) page.

Other Sources of Capture Files

If you don't find what you're looking for, you may also try:

- <http://www.google.com/>
- <http://www.icir.org/enterprise-tracing/download.html> (unsorted capture of packet headers from enterprise traffic - use the .anon files)
- <https://www.openpacket.org/capture/list> (open repository of traces particularly related to digital security)
- <http://www.packetlife.net/captures/> (community submissions, organized and moderated)
- <http://www.pcapr.net/> (web 2.0 for pcaps with editing, DoS, etc; powered by wireshark)
- <http://www.netresec.com/?page=PcapFiles> (great list of places to download pcap files from)
- <http://sysdoccap.codeplex.com/wikipage?title=System%20Overview%20Document%20Scenario%20Captures> (Microsoft System Overview Document captures).
- Collection of Pcap files from malware analysis (You will need to contact Mila for the password to extract the files.)

General / Unsorted

[tfp_capture.pcapng](#) (libpcap) Tinkerforge protocol captures over TCP/IP and USB.

[NTLM.pcap](#) (libpcap) Illustrate NTLM authentication process, based on WSS 3.0

[Obsolete_Packets.cap](#) (libpcap) Contains various obscure/no longer in common use protocols, including Banyan VINES, AppleTalk and DECnet.

[Apple_IP-over-IEEE_1394_Packet.pcap](#) (libpcap) An ICMP packet encapsulated in Apple's IP-over-1394 (ap1394) protocol

[SkypeIRC.cap](#) (libpcap) Some Skype, IRC and DNS traffic.

[ipp.pcap](#) (libpcap) CUPS printing via IPP (test page)

[IrDA_Traffic.ntar](#) (pcap-ng) Various IrDA packets, use Wireshark 1.3.0 (SVN revision 28866 or higher) to view

[9p.cap](#) (libpcap) Plan 9 9P protocol, various message types.

[EmergeSync.cap](#) (libpcap) rsync packets, containing the result of an "emerge sync" operation on a Gentoo system

[afs.cap.gz](#) (libpcap) Andrew File System, based on RX protocol. Various operations.

[ancp.pcap.gz](#) (libpcap) Access Node Control Protocol (ANCP).

[ascend.trace.gz](#) (Ascend WAN router) Shows how Wireshark parses special Ascend data

[atm_capture1.cap](#) (libpcap) A trace of ATM Classical IP packets.

[bacnet-arcnet.cap](#) (libpcap) Some BACnet packets encapsulated in ARCnet framing

[bfd-raw-auth-simple.pcap](#) (libpcap) BFD packets using simple password authentication.

[bfd-raw-auth-md5.pcap](#) (libpcap) BFD packets using md5 authentication.

[bfd-raw-auth-sha1.pcap](#) (libpcap) BFD packets using SHA1 authentication.

[BT_USB_LinCooked_Eth_80211_RT.ntar.gz](#) (pcap-ng) A selection of Bluetooth, Linux mmapped USB, Linux Cooked, Ethernet, IEEE 802.11, and IEEE 802.11 RadioTap packets in a pcap-ng file, to showcase the power of the file format, and Wireshark's support for it. Currently, Wireshark doesn't support files with multiple Section Header Blocks, which this file has, so it cannot read it. In addition, the first packet in the file, a Bluetooth packet, is corrupt - it claims to be a packet with a Bluetooth pseudo-header, but it contains only 3 bytes of data, which is too small for a Bluetooth pseudo-header.

[bootparams.cap.gz](#) (libpcap) A couple of rpc.bootparamsd 'getfile' and 'whoami' requests.

[cmp_IR_sequence_OpenSSL-Cryptlib.pcap](#) (libpcap) Certificate Management Protocol (CMP) version 2 encapsulated in HTTP. Full "Initialization Request".

[cmp_IR_sequence_OpenSSL-EJBCA.pcap](#) (libpcap) Certificate Management Protocol (CMP) version 2 encapsulated in HTTP. Full "Initialization Request". Authentication with CRMF regToken.

[cmp-trace.pcap.gz](#) (libpcap) Certificate Management Protocol (CMP) certificate requests.

[cmp-in-http-with-errors-in-cmp-protocol.pcap.gz](#) (libpcap) Certificate Management Protocol (CMP) version 2 encapsulated in HTTP. Full "Initialization Request" and rejected "Key Update Request". There are some errors in the CMP packages.

[cmp_in_http_with_pkixcmp-poll_content_type.pcap.gz](#) (libpcap) Certificate Management Protocol (CMP) version 2 encapsulated in HTTP. The CMP messages are of the deprecated but used content-type "pkixcmp-poll", so they are using the TCP transport style. In two of the four CMP messages, the content type is not explicitly set, thus they cannot be dissected correctly.

[cigi2.pcap.gz](#) (libpcap) Common Image Generator Interface (CIGI) version 2 packets.

[cigi3.pcap.gz](#) (libpcap) Common Image Generator Interface (CIGI) version 3 packets.

[ciscowl.pcap.gz](#) (libpcap) Cisco Wireless LAN Context Control Protocol (WLCCP) version 0x0

[ciscowl_version_0xc1.pcap.gz](#) (libpcap) Cisco Wireless LAN Context Control Protocol (WLCCP) version 0xc1. Includes following base message types: SCM Advertisements, EAP Auth., Path Init, Registration

[configuration_test_protocol_aka_loop.pcap](#) (libpcap) Example of an Ethernet loopback with a 'third party assist'

[cops-pr.cap.gz](#) (libpcap) A sample of COPS traffic.

[couchbase_subdoc_multi.pcap](#) (libpcap) A sample Couchbase binary protocol file including sub-document multipath request/responses.

[couchbase-create-bucket.pcapng](#) (libpcap) A sample Couchbase binary protocol file that includes a create_bucket command.

[couchbase-lww.pcap](#) (libpcap) A sample Couchbase binary protocol file including set_with_meta, del_with_meta and get_meta commands with last write wins support.

[couchbase-xattr.pcapng](#) (libpcap) A sample capture of the XATTR features in the Couchbase binary protocol.

[dct2000_test.out](#) (dct2000) A sample DCT2000 file with examples of most supported link types

[dhcp.pcap](#) (libpcap) A sample of DHCP traffic.

[dhcp-and-dyndns.pcap.gz](#) (libpcap) A sample session of a host doing dhcp first and then dyndns.

[dhcp-auth.pcap.gz](#) (libpcap) A sample packet with dhcp authentication information.

[PRIV_bootp-both_overload.pcap](#) (libpcap) A DHCP packet with sname and file field overloaded.

[PRIV_bootp-both_overload_empty-no_end.pcap](#) (libpcap) A DHCP packet with overloaded field and all end options missing.

[dccp_trace.pcap.gz](#) (libpcap) A trace of DCCP packet types.

[dns.cap](#) (libpcap) Various DNS lookups.

[dualhome.iptrace](#) (AIX iptrace) Shows Ethernet and Token Ring packets captured in the same file.

[dvmrp-conv.cap](#) Shows Distance Vector Multicast Routing Protocol packets.

[eapol-mka.pcap](#) (libpcap) EAPoL-MKA (MKA, IEEE 802.1X) traffic.

[epmd.pcap](#) Two Erlang Port Mapper Daemon (EPMD) messages.

[Ethernet_Pause_Frame.cap](#) Ethernet Pause Frame packets.

[exec-sample.pcap](#) The exec (rexec) protocol

[genbroad.snoop](#) (Solaris snoop) Netware, Appletalk, and other broadcasts on an ethernet network.

[Mixed1.cap](#) (MS NetMon) Some Various, Mixed Packets.

[gryphon.cap](#) (libpcap) A trace of Gryphon packets. This is useful for testing the Gryphon plug-in.

[hart_ip.pcap](#) (libpcap) Some HART-IP packets, including both an UDP and TCP session.

[hsrp.pcap](#) (libpcap) Some Cisco HSRP packets, including some with Opcode 3 (Advertise) .

[hsrp-and-ospf-in-LAN](#) (libpcap) HSRP state changes and OSPF LSAs sent during link up/down/up.

[ipv4_cipso_option.pcap](#) (libpcap) A few IP packets with CIPSO option.

[imap.cap.gz](#) (libpcap) A short IMAP session using Mutt against an MSX server.

[RawPacketIPv6Tunnel-UK6x.cap](#) (libpcap) - Some IPv6 packets captured from the 'sit1' interface on Linux. The IPv6 packets are carried over the UK's UK6x network, but what makes this special, is the fact that it has a Link-Layer type of "Raw packet data" - which is something that you don't see everyday.

[iseries.cap](#) (IBM iSeries communications trace) FTP and Telnet traffic between two AS/400 LPARS.

[FTPv6-1.cap](#) (Microsoft Network Monitor) FTP packets (IPv6)

[FTPv6-2.cap](#) (Microsoft Network Monitor) Some more FTP packets (IPv6)

[gearman.cap](#) Gearman Protocol packets

[isl-2-dot1q.cap](#) (libpcap) A trace including both ISL and 802.1q-tagged Ethernet frames. Frames 1 through 381 represent traffic encapsulated using Cisco's ISL, frames 382-745 show traffic sent by the same switch after it had been reconfigured to support 802.1Q trunking.

[kafka-testcases-v4.tar.gz](#) (libpcap) Apache Kafka dissector testcases (generated with [this scripts](#)).

[lacpl.pcap.gz](#) (libpcap) Link Aggregation Control Protocol (LACP, IEEE 802.3ad) traffic.

[linx-setup-pingpong-shutdown.pcap](#) (libpcap) Successive setup of LINX on two hosts, exchange of packets and shutdown.

[llrp.cap](#) EPCglobal Low-Level Reader Protocol (LLRP)

[llt-sample.pcap](#) Veritas Low Latency Transport (LLT) frames

[macsec_cisco_trunk.pcap](#) (libpcap) MACsec/802.1AE session, manual keys, 3750X switch-to-switch (Trustsec) forced across a half-duplex 10M hub connection, destination mac addresses can be seen for Cisco VTP, RSTP (RPVST+), CDP, EIGRP etc.

[mapi.cap.gz](#) (libpcap) MAPI session w/ Outlook and MSX server, not currently decoded by Wireshark.

[messenger.pcap](#) (libpcap) a few messenger example packets.

[metamako_trailer.pcap](#) (libpcap) the Metamako timestamp trailer format.

[mms.pcap.gz](#) (libpcap) Manufacturing Message Specification traffic.

[SITA-Protocols.cap](#) (libpcap) Some SITA WAN (Societe Internationale de Telecommunications Aeronautiques sample packets (contains X.25, International Passenger Airline Reservation System, Unisys Transmittal System and Frame Relay packets)

[msnms.pcap](#) (libpcap) MSN Messenger packets.

[MSN_CAP.xlsx](#) (xlsx) MSN Messenger packets in xlsx format.

[monotone-netsync.cap.gz](#) (libpcap) Some fragments (the full trace is > 100MB gzipped) of a checkout of the monotone sources.

[mpeg2_mp2t_with_cc_drop01.pcap](#) (libpcap) MPEG2 (RFC 2250) Transport Stream example with a dropped CC packet (anonymized with tcpurify).

[mpls-basic.cap](#) (libpcap) A basic sniff of MPLS-encapsulated IP packets over Ethernet.

[mpls-exp.cap](#) (libpcap) IP packets with EXP bits set.

[mpls-te.cap](#) (libpcap) MPLS Traffic Engineering sniffs. Includes RSVP messages with MPLS/TE extensions and OSPF link updates with MPLS LSAs.

[mpls-twolevel.cap](#) (libpcap) An IP packet with two-level tagging.

[netbench_1.cap](#) (libpcap) A capture of a reasonable amount of NetBench traffic. It is useful to see some of the traffic a NetBench run generates.

[NMap Captures.zip](#) (libpcap) Some captures of various NMap port scan techniques.

[OptoMMP.pcap](#) A capture of some OptoMMP read/write quadlet/block request/response packets. [OptoMMP documentation](#).

[pana.cap](#) (libpcap) PANA authentication session (pre-draft-15a so Wireshark 0.99.5 or before is required to view it correctly).

[pana-draft18.cap](#) (libpcap) PANA authentication session (draft-18 so Wireshark 0.99.7 or later is required to view it correctly).

[pana-rfc5191.cap](#) (libpcap) PANA authentication and re-authentication sequences.

[pim-reg.cap](#) (libpcap) Protocol Independent Multicast, with IPv6 tunnelled within IPv6

[ptpv2.pcap](#) (libpcap) various Precision Time Protocol (IEEE 1588) version 2 packets.

[Public_nic](#) (libpcap) A bunch of SSDP (Universal Plug and Play protocol) announcements.

[rpl_sample.cap.gz](#) (libpcap) A RIPL sample capture.

[rtp_example.raw.gz](#) (libpcap) A VoIP sample capture of a H323 call (including H225, H245, RTP and RTCP).

[rtps_cooked.pcapng](#) (libpcap) Manually generated RTPS traffic covering a range of submessages and parameters.

[rsvp-PATH-RESV.pcap](#) (libpcap) A sample RSVS capture with PATH and RESV messages.

[sbus.pcap](#) (libpcap) An EtherSBus (sbus) sample capture showing some traffic between the programming tool (PG5) and a PCD (Process Control Device, a PLC; Programmable Logic Controller).

[Ether-S-IO_traffic_01.pcap.gz](#) (libpcap) An EtherSIO (esio) sample capture showing some traffic between a PLC from Saia-Burgess Controls AG and some remote I/O stations (devices called PCD3.T665).

[simulcrypt.pcap](#) (libpcap) A SIMULCRYPT sample capture, SIMULCRYPT over TCP) on ports 8600, 8601, and 8602.

[TeamSpeak2.pcap \(libpcap\)](#) A TeamSpeak2 capture

[tipc-publication-payload-withdrawal.pcap \(libpcap\)](#) TIPC port name publication, payload messages and port name withdrawal.

[tipc-bundler-messages.pcap \(libpcap\)](#) TIPCv2 Bundler Messages

[tipc_v2_fragmenter_messages.pcap.gz \(libpcap\)](#) TIPCv2 Fragmenter Messages

[TIPC-over-TCP_disc-publ-inventory_sim-withd.pcap.gz \(libpcap\)](#) TIPCv2 over TCP (port 666) traffic generated by the inventory simulation of the TIPC demo package.

[TIPC-over-TCP_MTU-discovery.pcap.gz \(libpcap\)](#) TIPCv2 over TCP (port 666) - Link State messages with filler bytes for MTU discovery.

[toshiba.general.gz \(Toshiba\)](#) Just some general usage of a Toshiba ISDN router. There are three link types in this trace: PPP, Ethernet, and LAPD.

[uma_ho_req_bug.cap \(libpcap\)](#) A "UMA URR HANDOVER REQUIRED" packet.

[unistim_phone_startup.pcap \(libpcap\)](#) Shows a phone booting up, requesting ip address and establishing connection with cs2k server.

[unistim-call.pcap \(libpcap\)](#) Shows one phone calling another via cs2k server over unistim

[v6.pcap \(libpcap\)](#) Shows IPv6 (6-Bone) and ICMPv6 packets.

[v6-http.cap \(libpcap\)](#) Shows IPv6 (SixXS) HTTP.

[vlan.cap.gz \(libpcap\)](#) Lots of different protocols, all running over 802.1Q virtual lans.

[vms_tcptrace.txt \(VMS TCPtrace\)](#) Sample output from VMS TCPtrace. Mostly NFS packets.

[vms_tcptrace-full.txt \(VMS TCPtrace\)](#) Sample output from VMS TCPtrace/full. Mostly NFS packets.

[vnc-sample.pcap](#) Virtual Networking Computing (VNC) session trace

[vxi-11.pcap.gz \(libpcap\)](#) Scan for instruments attached to an Agilent E5810A VXI-11-to-GPIB adapter.

[WINS-Replication-01.cap.gz \(libpcap\)](#) WINS replication trace.

[WINS-Replication-02.cap.gz \(libpcap\)](#) WINS replication trace.

[WINS-Replication-03.cap.gz \(libpcap\)](#) WINS replication trace.

[wpsdata.cap \(libpcap\)](#) WPS expanded EAP trace.

[openwire_sample.tar.gz \(libpcap\)](#) ActiveMQ OpenWire trace.

[drda_db2_sample.tgz \(libpcap\)](#) DRDA trace from DB2.

[starteam_sample.tgz \(libpcap\)](#) StarTeam trace.

[rtmp_sample.tgz \(libpcap\)](#) RTMP (Real Time Messaging Protocol) trace.

[rtmpt.pcap.bz2 \(libpcap\)](#) RTMPT trace with macromedia-fsc TCP-stuff.

[sample-imf.pcap.gz \(libpcap\)](#) SMTP and IMF capture. Also shows some MIME multipart.

[smtp.pcap \(libpcap\)](#) SMTP simple example.

[captura.NNTP.cap \(libpcap\)](#) NNTP News simple example.

[sample-TNEF.pcap.gz \(libpcap\)](#) TNEF trace containing two attachments as well as message properties. Also shows some SMTP, IMF and MIME multipart trace.

[wol.pcap \(libpcap\)](#) WakeOnLAN sample packets generated from both ether-wake and a Windows-based utility.

[zigbee-join-authenticate.pcap.gz \(libpcap\)](#) Two devices join a ZigBee network and authenticate with the trust center. Network is encrypted using network keys and trust center link keys.

[IGMP dataset.pcap \(igmp\)](#) igmp version 2 dataset

[yami.pcap](#) (yami) sample packets captured when playing with YAMI4 library

[DHCPv6.pcap](#) (dhcpv6) sample dhcpv6 client server transaction solicit(fresh lease)/advertise/request/reply/release/reply.

[dhcpv6.pcap](#) (dhcpv6) sample dhcpv6 client server transaction solicit(requesting-old-lease)/advertise/request/reply/release/reply.

ADSL CPE

Here are some captures of the data sent on an ADSL line by the Neufbox 6, the CPE provided by french ISP SFR. Capturing was done by running tcpdump via SSH on the 8/35 ATM VC.

Sensitive informations like passwords, phone numbers, personal IP/MAC addresses... were redacted and replaced by equivalent ones (checksums were recalculated too).

Used protocols includes DHCP, PPP, Ethernet, IP, ARP, L2TP, SIP, RTP, DNS, ICMP, DHCPv6, NTP, IGMPv2, ICMPv6, HTTP, HTTPS, Syslog, RADIUS...

- [nb6-startup.pcap](#) Includes establishment of IPv4 and IPv6 connections, download of configuration, connection to a VoIP server...
- [nb6-http.pcap](#) Three different HTTP requests: first was sent on the private IPv4 network (IPoE), second was sent on the public IPv4 network, third was sent on the public IPv6 network (L2TP tunnel).
- [nb6-telephone.pcap](#) A brief phone call to SFR's voicemail service.
- [nb6-hotspot.pcap](#) Someone connecting to SFR's wireless community network.

A detailed analysis of these captures, along with an explanation of how these captures were realized, is available in French [here](#).

Viruses and worms

[slammer.pcap](#) Slammer worm sending a DCE RPC packet. bnb

[dns-remoteshell.pcap](#) Watch frame 22 Ethereal detecting DNS Anomaly caused by remoteshell riding on DNS port - DNS Anomaly detection made easy by ethereal .. Anith Anand

Crack Traces

[teardrop.cap](#) Packets 8 and 9 show the overlapping IP fragments in a Teardrop attack.

[zlip-1.pcap](#) DNS exploit, endless, pointing to itself message decompression flaw.

[zlip-2.pcap](#) DNS exploit, endless cross referencing at message decompression.

[zlip-3.pcap](#) DNS exploit, creating a very long domain through multiple decompression of the same hostname, again and again.

[can-2003-0003.pcap](#) Attack for CERT advisory CA-2003-03

PROTOS Test Suite Traffic

The files below are captures of traffic generated by the PROTOS test suite developed at the University of Oulu. They contain malformed traffic used to test the robustness of protocol implementations; they also test the robustness of protocol analyzers such as Wireshark.

[c04-wap-r1.pcap.gz](#) Output from c04-wap-r1.jar

[c05-http-reply-r1.pcap.gz](#) Output from c05-http-reply-r1.jar

[c06-ldapv3-app-r1.pcap.gz](#) Output from c06-ldapv3-app-r1.jar

[c06-ldapv3-enc-r1.pcap.gz](#) Output from c06-ldapv3-enc-r1.jar

[c06-snmpv1-req-app-r1.pcap.gz](#) Output from c06-snmpv1-req-app-r1.jar

[c06-snmpv1-req-enc-r1.pcap.gz](#) Output from c06-snmpv1-req-enc-r1.jar

[c06-snmpv1-trap-app-r1.pcap.gz](#) Output from c06-snmpv1-trap-app-r1.jar

[c06-snmpv1-trap-enc-r1.pcap.gz](#) Output from c06-snmpv1-trap-enc-r1.jar

[c07-sip-r2.cap](#) Output from c07-sip-r2.jar

Specific Protocols and Protocol Families

3GPP 3gpp_mc.cap (libpcap) 3gpp cn mc interface capture file, include megaco and ranap packet

AirTunes

Apple AirTunes protocol as used by AirPort. See <http://git.zx2c4.com/Airtunes2/about/airtunes-1.pcap>

Apache Cassandra

apache-cassandra-cql-v3.pcapng.gz - CQL binary protocol version 3. Specification at https://raw.githubusercontent.com/apache/cassandra/cassandra-2.1/doc/native_protocol_v3.spec.

ARP/RARP

[arp-storm.pcap](#) (libpcap) More than 20 ARP requests per second, observed on a cable modem connection.

[rarp_request.cap](#) (libpcap) A reverse ARP request.

[rarp_req_reply.pcap](#) (pcapng) RARP request and reply.

Spanning Tree Protocol

[stp.pcap](#) (libpcap)

Bluetooth

[l2ping.cap](#) (Linux BlueZ hcidump) Contains some Bluetooth packets captured using hcidump, the packets were from the l2ping command that's included with the Linux BlueZ stack.

[Bluetooth1.cap](#) (Linux BlueZ hcidump) Contains some Bluetooth packets captured using hcidump.

UDP-Lite

Several UDP-Lite packets, some correct, some wrong.

[udp_lite_full_coverage_0.pcap](#) If coverage=0, the full packet is checksummed over.

[udp_lite_illegal_1-7.pcap](#) Coverage values between 1..7 (illegal).

[udp_lite_normal_coverage_8-20.pcap](#) Normal ones with correct checksums (legal).

[udp_lite_illegal_large-coverage.pcap](#) Three traces with coverage lengths greater than the packet length.

[udp_lite_checksum_0.pcap](#) checksum 0 is illegal.

NFS Protocol Family

[nfs_bad_stalls.cap](#) (libpcap) An NFS capture containing long stalls (about 38ms) in the middle of the responses to many read requests. This is useful for seeing the staircase effect in TCP Time Sequence Analysis.

[nfsv2.pcap.gz](#) (libpcap) Fairly complete trace of all NFS v2 packet types.

[nfsv3.pcap.gz](#) (libpcap) Fairly complete trace of all NFS v3 packet types.

[klm.pcap.gz](#) (libpcap) A "fake" trace containing all KLM functions.

[rquota.pcap.gz](#) (libpcap) A "fake" trace containing all RQUOTA functions.

[nsm.pcap.gz](#) (libpcap) A "fake" trace containing all NSM functions.

Server Message Block (SMB)/Common Internet File System (CIFS)

[smbtorture.cap.gz](#) (libpcap) Capture showing a wide range of SMB features. The capture was made using the Samba4 smbtorure suite, against a Windows Vista beta2 server.

See [SMB2#Example_capture_files](#) for more captures.

Legacy Implementations of SMB

[smb-legacy-implementation.pcapng](#) NetBIOS traffic from Windows for Workgroups v3.11. Shows NetBIOS over LLC and NetBIOS over IPX.

Browser Elections

[smb-browser-elections.pcapng](#) NetBIOS requires that a Master Browser tracks host announcements and responds to Browser Requests. Master Browser is elected by a list of criteria. The role of a master browser should be taken by a stable system, as browser elections can have a serious performance impact. This trace shows the a client with a misconfigured firewall, blocking incoming UDP port 138. Since the client can not find a master browser, it stalls all other systems by repeated browser elections.

SMB-Locking

[SMB-locking.pcapng.gz](#) (libpcap) SMB and SMB2 support opportunistic locking. Clients can send a lock request. If necessary, the server has to break conflicting locks by sending a lock request to the client. This is a bit unusual: We see requests from the server. A large number of lock requests is usually an indicator for poor performance. If lock requests are made as blocking IOs, users will experience that their application freezes in a seemingly random manner.

SMB-Direct

[smb-direct-man-in-the-middle-02-reassemble-frames9.pcap.gz](#) (libpcap) SMB-Direct over iWarp between two Windows 2012 machines proxied via a port redirector in order to capture the traffic.

SMB3.1 handshake

[smb-on-windows-10.pcapng](#) (libpcap) Short sample of a SMB3 handshake between two workstations running Windows 10.

TCP

See the MPTCP section for MPTCP pcaps.

MPTCP

[iperf-mptcp-0-0.pcap](#) iperf between client and hosts with 2 interfaces and the linux implementation. There are 4 subflows, 2 of them actually successfully connected.

[redundant_stream1.pcapng](#) iperf with a redundant scheduler, i.e., the same data is sent across several subflows at the same time. Enable all the MPTCP options and you should be able to see Wireshark detect reinjections across subflows. For instance try the filter "tcp.options.mptcp.rawdataseqno == 1822294653": you should see 3 packets sending the same data on 3 different TCP connections.

Parallel Virtual File System (PVFS)

[pvfs2-sample.pcap](#) (libpcap) PVFS2 copy operation (local file to PVFS2 file system)

HyperText Transport Protocol (HTTP)

[http.cap](#) A simple HTTP request and response.

[http_gzip.cap](#) A simple HTTP request with a one packet gzip Content-Encoded response.

[http-chunked-gzip.pcap](#) A single HTTP request and response for www.wireshark.org (proxied using socat to remove SSL encryption). Response is gzipped and used chunked encoding. Added in January 2016.

[http_with_jpegs.cap.gz](#) A simple capture containing a few JPEG pictures one can reassemble and save to a file.

[tcp-ethereal-file1.trace](#) (libpcap) A large POST request, taking many TCP segments.

[tcp-ecn-sample.pcap](#) A sample TCP/HTTP of a file transfer using ECN (Explicit Congestion Notification) feature per RFC3168. Frame 48 experienced Congestion Encountered.

For captures using SSL, see [#SSL_with_decryption_keys](#).

Telnet

[telnet-cooked.pcap](#) (libpcap) A telnet session in "cooked" (per-line) mode.

[telnet-raw.pcap](#) (libpcap) A telnet session in "raw" (per-character) mode.

TFTP

[tftp_rrq.pcap](#) (libpcap) A TFTP Read Request.

[tftp_wrq.pcap](#) (libpcap) A TFTP Write Request.

UFTP

[UFTP_v3_transfer.pcapng](#) (pcapng) An UFTP v3 file transfer (unencrypted).

[UFTP_v4_transfer.pcapng](#) (pcapng) An UFTP v4 file transfer (unencrypted).

Routing Protocols

[bgp.pcap.gz](#) (libpcap) BGP packets, including AS path attributes.

[bgp_shutdown_communication.pcap](#) (libpcap) Sample packet for BGP Shutdown communication
<https://tools.ietf.org/html/draft-ietf-idr-shutdown-01>.

[bmp.pcap](#) (libpcap) BGP Monitoring Protocol, including Init, Peer Up, Route Monitoring

[EIGRP_Neighbors.cap](#) Two Cisco EIGRP peers forming an adjacency.

[eigrp-for-ipv6-auth.pcap](#) Cisco EIGRP packets, including Authentication TLVs

[eigrp-for-ipv6-stub.pcap](#) Cisco EIGRP packets, including Stub routing TLVs

[eigrp-for-ipv6-updates.pcap](#) Cisco EIGRP packets, including IPv6 internal and external route updates

[eigrp-ipx.pcap](#) Cisco EIGRP packets, including IPX internal and external route updates

[ipv6-ripng.gz](#) (libpcap) RIPng packets (IPv6)

[ospf.cap](#) (libpcap) Simple OSPF initialization.

[ospf-md5.cap](#) (libpcap) Simple OSPF-MD5 Authentication.

[RIP_v1](#) A basic route exchange between two RIP v1 routers.

SNMP

[b6300a.cap](#) A collection of SNMP GETs and RESPONSEs

[snmp_usm.pcap](#) A series of authenticated and some encrypted SNMPv3 PDUS

- the authPassword for all users is pippoxxx and the privPassword is PIPPOxxx.
- pippo uses MD5 and DES
- pippo2 uses SHA1 and DES
- pippo3 uses SHA1 and AES
- pippo4 uses MD5 and AES

Network Time Protocol

File: [NTP_sync.pcap](#) (4KB, showing the NetworkTimeProtocol)

Contributor: [Gerald Combs](#)

Description: After reading about the round robin DNS records set up by the folks at pool.ntp.org, I decided to use their service to sync my laptop's clock. The attached file contains the result of running

```
net time /setsntp:us.pool.ntp.org
net stop w32time
net start w32time
```

at the command prompt. Something to note is that each pool.ntp.org DNS record contains multiple addresses. The Windows time client appears to query all of them.

[MicrosoftNTP.cap](#) (Microsoft Network Monitor) 2 Packets containing a synchronisation to the Microsoft NTP server.

SyncE Protocol

File: [SyncE_bidirectional.pcapng](#) (1.5KB, showing the syncE protocol)

Contributor: [RadhaKrishna](#), courtesy: Karsten, RAD, Germany

Description: SyncE is a synchronization mechanism for Ethernet networks. This mechanism uses SSM packets to qualify the synchronization signal quality.

PostgreSQL v3 Frontend/Backend Protocol

File: [pgsql.cap.gz](#) (2KB, showing a brief PostgresProtocol session)

Contributor: [Abhijit Menon-Sen](#)

File: [pgsql-jdbc.pcap.gz](#) (584KB, showing a PostgreSQL JDBC test session)

Contributors: Kris Jurka and Abhijit Menon-Sen

MySQL protocol

File: [mysql_complete.pcap](#) (6 KB, from bug 2691)

For MySQL captures using SSL, see [#SSL_with_decryption_keys](#).

MS SQL Server protocol - Tabular Data Stream (TDS)

[ms-sql-tds-rpc-requests.cap](#) (17 KB) RPC requests and a few SQL queries

Contributor: Emil Wojak

Netgear NSDP

[ndsp_v2.pcapng.gz](#) https://en.wikipedia.org/wiki/Netgear_NSdp upload a new Firmware via Netgear SmartUtility. Switch Netgear GS748Tv3 is 192.168.0.239.

VendorLanProtocolFamily

Extreme Networks

[edp.trace.gz](#) General EDP traffic

[edp1.trace.gz](#)

[edp.esrp.gz](#) EDP/ESRP traffic

[edp.eaps.mirror1.trace.gz](#)

[edp.eaps.mirror2.trace.gz](#)

===Cisco===

[cdp.pcap](#) CDP v2 frame from a Cisco router.

[cdp_v2.pcap](#) CDP v2 frame from a Cisco switch.

[DTP.pcapng](#) DTP frames from a Cisco switch.

[cdp-BCM1100.cap](#)

Mikrotiks [mndp.pcap](#)

DECT

[dump_2009-02-02_23_17_18_RFPI_00_4e_b4_bd_50.pcap.gz](#) A trace of an unencrypted DECT phonecall with the original Ethernet pseudoheader (see README.DECT). Called number 0800-1507090 (DTMF only?)

Sigtran Protocol Family

Captures of protocols belonging to the SIGTRAN family.

[isup.cap](#) A single call's signalling sequence using ISUP/MTP3/M3UA/SCTP/IP. NOTE: The M3UA version preference must be set to "Draft 6" to successfully view this file (Edit->Preferences->Protocols->M3UA->M3UA Version->Internet Draft version 6).

[bicc.pcap](#) Sample BICC PDUs.

[camel.pcap](#) A single call using CAMEL/TCAP/SCCP/MTP3/M2UA/SCTP/IP. This "capture" has been generated using text2pcap tool, from MTP3 raw data trace. The capture contains the following Camel operations: InitialDP, RequestReportBCSMEvent, ApplyCharging, Continue, EventReportBCSM, ApplyChargingReport, ReleaseCall.

[camel2.pcap](#) Same as camel.pcap capture, except that the it is using another Camel phase. The other difference is that the call is rejected. The capture contains the following Camel operations: InitialDP, RequestReportBCSMEvent, Connect, ReleaseCall.

[gsm_map_with_ussd_string.pcap](#) This "capture" has been generated using text2pcap tool, from MTP3 raw data trace. It contains a GSM MAP processUnstructuredSS-Request MAP operation with a USSD String (GSM 7 bit encoded).

[ansi_map_ota.pcap](#) ANSI MAP OTA trace.

[ansi_map_win.pcap](#) ANSI MAP over ANSI MTP3 with WIN messages.

[packlog-example.cap](#) Example capture of Cisco ITP's Packet Logging Facility packets (SS7 MSU encapsulated in syslog messages). It contains a few random MSUs: MTP3MG, TCAP and GSM_MAP. There aren't any complete dialogs in the capture.

[japan_tcap_over_m2pa.pcap](#) Example of TCAP over Japan SCCP/MTP over M2PA (RFC version).

[ansi_tcap_over_itu_sccp_over_mtp3_over_mtp2.pcap](#) Example of ANSI TCAP carried over ITU SCCP/MTP3/MTP2. Really this should be in an "SS7" section of the SampleCaptures page.

Stream Control Transmission Protocol (SCTP)

[sctp.cap](#) Sample SCTP PDUs, Megaco.

[sctp-test.cap](#) Sample SCTP handshaking and DATA/SACK chunks.

[sctp-addip.cap](#) Sample SCTP ASCONF/ASCONF-ACK Chunks that perform Vertical Handover.

[sctp-www.cap](#) Sample SCTP DATA Chunks that carry HTTP messages between Apache2 HTTP Server and Mozilla.

[SCTP-INIT-Collision.cap](#) Sample SCTP trace showing association setup collision (both peers trying to connect to each other).

IPMI

[ipmi.SDR.FRU.SEL.pcap](#) Opens and closes a session and retrieves the SDR, SEL and FRU. This "capture" has been generated using text2pcap tool, from RMCP raw data trace.

[ipmi.sensor.event.RR.pcap](#) Opens and closes a session and does different Sensor/Event requests and responses. This "capture" has been generated using text2pcap tool, from RMCP raw data trace.

IPMB

[ipmb.multi.packets.pcap](#) (libpcap). IPMB interface capture file, include multiple request and response packets.

SIP and RTP

[aaa.pcap](#) Sample SIP and RTP traffic.

[SIP_CALL_RTP_G711](#) Sample SIP call with RTP in G711.

[SIP_DTMF2.cap](#) Sample SIP call with RFC 2833 DTMF

[DTMFsipinfo.pcap](#) Sample SIP call with SIP INFO DTMF

[h223-over-rtp.pcap.gz](#) (libpcap) A sample of H.223 running over RTP, following negotiation over SIP.

[h263-over-rtp.pcap](#) (libpcap) A sample of RFC 2190 H.263 over RTP, following negotiation over SIP.

[metasploit-sip-invite-spoof.pcap](#) Metasploit 3.0 SIP Invite spoof capture.

[FAX-Call-t38-CA-TDM-SIP-FB-1.pcap](#) Fax call from TDM to SIP over Mediagateway with declined T38 request, megaco H.248.

[Asterisk_ZFONE_XLITE.pcap](#) Sample SIP call with ZRTP protected media.

[MagicJack+ Power On sequence](#) SIP and RTP traffic generated by power on the MagicJack+

[MagicJack+ short test call](#) A complete telephone call example

SIP calls between SIPp (scenario file) and FreeSWITCH 1.6.12, playing [ivr-on_hold_indefinitely.wav](#) in one direction using various codecs:

- [sip-rtp-dvi4.pcap](#)
- [sip-rtp-g711.pcap](#) - has both G.711A (PCMA) and G.711U (PCMU)
- [sip-rtp-g722.pcap](#)
- [sip-rtp-g726.pcap](#) - has eight variants: (AAL2-)G726-16/24/40/40
- [sip-rtp-gsm.pcap](#)
- [sip-rtp-ilbc.pcap](#)
- [sip-rtp-116.pcap](#) - four variants: 8000/2, 16000/2, 11025, 48000

- [sip-rtp-lpc.pcap](#)
- [sip-rtp-opus.pcap](#) - Opus mono session with 48kHz clock rate
- [sip-rtp-speex.pcap](#) - three sample rates: 8/16/32kHz
- [sip-rtp-g729a.pcap](#)

RTSP Protocol

Here's a few RTSP packets in Microsoft Network Monitor format: [RTSPPACKETS1.cap](#)

[rtsp_with_data_over_tcp.cap](#) (libpcap) An RTSP reply packet.

H.223

[h223-over-iax.pcap.gz](#) (libpcap) A sample of H.223 running over IAX, including H.263 and AMR payloads.

[h223-over-tcp.pcap.gz](#) (libpcap) A sample of H.223 running over TCP. You'll need to select 'Decode as... H.223'.

[h223-over-rtp.pcap.gz](#) (libpcap) A sample of H.223 running over RTP, following negotiation over SIP.

MGCP

[MGCP.pcap](#) (libpcap) A sample of the Media Gateway Control Protocol (MGCP).

USB Raw (dlt 186)

[VariousUSBDevices.pcap](#) (libpcap) Various USB devices on a number of busses

Usb packets exchanged while unplugging and replugging a mouse: [mouse_replug2.pcap](#)

[usbstick3.pcap.gz](#) (libpcap) Plug in a USB2.0 stick, mount it, list the contents.

[usbhub.pcap.gz](#) (libpcap) Plug in a usb2.0 4-port hub without external powersupply, plugin a logitech presenter into one of the ports, press a button, unplug presenter, unplug hub. Repeat with externally powered hub.

USB with Linux encapsulation (dlt 189)

[usb_memory_stick.pcap](#) Plug in an usb stick and mount it

[usb_memory_stick_create_file.pcap](#) Create a new file in a previously mounted memory stick and write some text into it

[usb_memory_stick_delete_file.pcap](#) Delete the file previously created from the memory stick.

[Bluetooth_HCI_and_OBEX_Transaction_over_USB.ntar.gz](#) contains a Bluetooth session (including connecting the USB adaptor used, pairing with a mobile phone, receiving a file over RFCOMM/L2CAP/OBEX, and finally removing the USB Bluetooth adaptor) over USB

[xrite-i1displaypro-argyllcms-1.9.2-spotread.pcapng](#) ArgyllCMS 1.9.2 making a single measurement (spotread) using an X-Rite i1 Display Pro color sensor. Some other sensors, such as the near-identical ColorMunki Display, use the same protocol.

USB with USBPcap encapsulation

[usb_u3v_sample.pcapng](#) Sample control and video traffic with a USB3Vision camera

[xrite-i1displaypro-i1profiler.pcap.gz](#) X-Rite i1Profiler v1.6.6.19864 measuring a display profile using an X-Rite i1 Display Pro color sensor, captured using USBPcap 1.0.0.7. Some other sensors, such as the near-identical ColorMunki Display, use the same protocol.

WAP Protocol Family

[WAP_WBXML_Provisioning_Push.pcap](#) contains a WSP Push PDU with a Client Provisioning document encoded in WBXML. This example comes from the WAP Provisioning specifications.

[wap_google.pcap](#) contains two WSP request-response dialogs.

X.509 Digital Certificates

[x509-with-logo.cap](#) contains (packet 18) an X.509 digital certificate containing RFC3709 LogotypeCertificateExtensions.

Lightweight Directory Access Protocol (LDAP)

[ldap-controls-dirsync-01.cap](#) Sample LDAP PDU with DIRSYNC CONTROLS

[ldap-krb5-sign-seal-01.cap](#) Sample GSSAPI-KRB5 signed and sealed LDAP PDU

[ldap-and-search.pcap](#) Sample search filter with AND filter, filter

[ldap-attribute-value-list.pcap](#) Sample search filter with an attribute value list

[ldap-extensible-match-with-dn.pcap](#) Sample search filter with an extensible match with dnAttributes

[ldap-extensible-match.pcap](#) Sample search filter with a simple extensible match

[ldap-substring.pcap](#) Sample search filter with substring matches

[ldap-ssl.pcapng](#) Encrypted LDAP traffic, see [#SSL_with_decryption_keys](#) for more details.

Link Layer Discovery Protocol (LLDP)

[lldp.minimal.pcap](#) (libpcap) Simple LLDP packets.

[lldp.detailed.pcap](#) (libpcap) LLDP packets with more details.

[lldpmed_civicloc.pcap](#) (libpcap) LLDP-MED packet with TLV entries, including civic address location ID, network policy and extended power-via-MDI.

[D-Link Ethernet Switch Smart Console Utility LLDP](#) (libpcap) D-Link LLDP SmartConsole Utility.

SAN Protocol Captures (iSCSI, ATAoverEthernet, FibreChannel, SCSI-OSD and other SAN related protocols)

[iscsi-scsi-data-cdrom.zip](#) contains a complete log of iSCSI traffic between MS iSCSI Initiator and Linux iSCSI Enterprise Target with a real SCSI CD-ROM exported. The CD-ROM has a Fedora Core 3 installation CD in it.

[iscsi-scsi-10TB-data-device.zip](#) contains a complete log of iSCSI traffic between MS iSCSI Initiator and Linux iSCSI Enterprise Target with a 10TB block device exported. See the use of READ_CAPACITY_16, READ_16, and WRITE_16.

[iscsi-tapel.gz](#) contains some operation log of iSCSI traffic between Linux open-iscsi initiator and Linux iSCSI Enterprise Target. The target is a EXABYTE EXB480 Tape library. Various mtv operations are executed.

[fcip_trace.cap](#) from <http://www.wireshark.org/lists/ethereal-dev/200212/msg00080.html> containing fcip traffic but unfortunately no SCSI over FCP over FCIP

[fcoe-t11.cap.gz](#) has the FCoE encapsulation, showing a host adapter doing fabric and port logins, discovery and SCSI Inquiries, etc. This uses the August 2007 T11 converged frame format.

[fcoe1.cap](#) has a similar set of frames using an older FCoE frame format proposed prior to the August 2007 version.

[fcoe-t11-short.cap](#) is a trace of part of a SCSI write with only the first 64 bytes of each frame captured.

[fcoe-drop-rddata.cap](#) is a trace of a SCSI read with REC and SRR recovery performed.

FIP is the FCoE Initialization Protocol. [fip-adv.cap.gz](#) shows advertisement, discovery and FLOGI. [fip-ka.cap.gz](#) shows keep-alives and a clear-virtual-link. Note that the host and gateway are not necessarily using FIP correctly.

[scsi-osd-example-001.pcap](#) is a trace of the IBM osd_initiator_3_1_1 (an OSD tester application) exercising IBM's ibm-osd-sim (an emulation of an OSD target device). The transport involved is iSCSI, and makes use of the relatively unusual new SCSI feature of bidirectional data transfer. The trace captures the initial iSCSI Logins, through INQUIRY and REPORT LUNS, followed by a number of commands from the SCSI-OSD command set such as FORMAT OSD, LIST, CREATE PARTITION, CREATE, WRITE, READ, REMOVE, REMOVE PARTITION, and SET ROOT KEY.

Peer-to-peer protocols

MANOLITO Protocol

[PioletSearch.Manolito.cap](#) (Microsoft Network Monitor) Here's a Piolet/Blubster (MANOLITO) capture for your enjoyment: It is a few packets I captured whilst looking for some Dr. Alban songs using Piolet.

[Manolito2.cap](#) (Microsoft Network Monitor) Here's some more Manolito packets (this time, it's just general sign-in).

BitTorrent Protocol

[BitTorrent.Transfer1.cap](#) (Microsoft Network Monitor) Here's a capture with a few [BitTorrent](#) packets; it contains some small packets I got whilst downloading something on [BitTorrent](#).

[BITTORRENT.pcap](#) (libpcap) Capture file of two torrent clients communicating without DHT or peer exchange.

SoulSeek Protocol

[SoulSeekRoom.cap](#) (Microsoft Network Monitor) Here's a capture with a few [SoulSeek](#) packets; it contains some small packets I got whilst browsing through some [SoulSeek](#) rooms.

JXTA Protocol

[jxta-sample.pcap](#) (libpcap) A trace of a JXTA client and rendezvous doing some chatting using several JXTA pipes.

[jxta-mcast-sample.pcap](#) (libpcap) A trace of a JXTA client and rendezvous doing some chatting using several JXTA pipes with UDP multicast enabled.

SMPP (Short Message Peer-to-Peer) Protocol

[smpp.cap](#) (libpcap) An SMPP capture showing a Bind_transmitter, Submit_sm and Unbind request flow.

Kaspersky Update Protocol

Some examples of packets used by the Kaspersky AntiVirus Updater: [KasperskyPackets.CAP](#)

Kerberos and keytab file for decryption

[krb-816.zip](#) An example of Kerberos traffic when 2 users logon domain from a Windows XP. keytab file is included. With Kerberos decryption function in Wireshark 0.10.12, some encrypted data can be decrypted.

[kpasswd_tcp.cap](#) An example of a Kerberos password change, sent over TCP.

[kerberos-Delegation.zip](#) An example of Kerberos Delegation in Windows Active Directory. Keytab file is also included. Please use Wireshark 0.10.14 SVN 17272 or above to open the trace.

[constrained-delegation.zip](#) An example of Kerberos constrained delegation (s4U2Proxy) in Windows 2003 domain.

mDNS & Apple Rendezvous

ZIP Compressed mDNS (Apple Rendezvous) Dumps - MS NetMon Format: [mDNS1.zip](#)

Point-To-Point (PPP)

[PPPHandshake.cap](#) PPP Handshake using Microsoft Windows VPN - MS NetMon Format

[PPP-config.cap](#) LCP and IPCP configuration of a Direct Cable Connection (WinXP)

[ppp-dialup-munged.pppd](#) Linux pppd async dialup connect/disconnect; (The capture file generated by pppd has been munged slightly to hide login info, thus certain HDLC checksums are incorrect)

[ppp_lcp_ipcp.pcap](#) PPP LCP and IPCP traffic w/a protocol reject for CCP.

Point-To-Point over Ethernet

File: [telecomitalia-pppoe.pcap](#)

PPPoE exchange between a Telecom Italia ADSL CPE and one of their Juniper (ex-Unisphere) BNASEs.

1. CPE sends a discovery initiation frame (PADI) and receives an offer (PADO).
2. CPE sends an authentication request with dummy credentials "aliceads!" both for username and password. These are useless, since the actual authentication is performed thanks to the DSLAM intercepting the PPPoE discovery frames and adding in a Circuit-ID/NAS-Port-ID tag, which is unique for the customer DSLAM port. This tag is then verified against a RADIUS server on Telecom Italia's premises. This process is hidden and transparent to the user and cannot be shown here.
3. Post-authentication, our CPE receives back IPCP messages containing configuration information, such as public IP, default gateway and DNS configuration.
4. We're now on the Internet. PPP LCP Echo requests and Echo replies are sent as session keep-alive check.

Contributed by [Lorenzo Cafaro](#).

X.400

These captures exercise the Session (SES), Presentation(PRES), Association Control (ACSE), Reliable Transfer (RTSE), Remote Operations (ROSE), X.400 P1 Transfer (X411), X.400 Information Object X420 and STANAG 4406 S4406 dissectors.

Contributor: **Graeme Lunt**

File: [x400-ping-refuse.pcap](#) (2KB)

Description: **An X.400 bind attempt using RTS in normal mode generating an authentication error from the responder.**

File: [x400-ping-success.pcap](#) (2KB)

Description: **An X.400 bind attempt using RTS in normal mode with a bind result from the responder.**

File: [p772-transfer-success.pcap](#) (4KB)

Description: **An X.400 bind attempt using RTS in normal mode with a bind result from the responder, and then the successful transfer of a P772 message.**

Direct Message Protocol

Contributor: **Stig Bjorlykke**

File: [dmp-examples.pcap.gz](#) (667B)

Description: **Some example DMP messages. Note that the examples uses port number 24209, which must be configured in the protocol page.**

STANAG 5066 SIS

These captures show a succesful and unsuccesful transfer of a simple line of text with STANAG 5066 Subnetwork Interface Sublayer (S5066_SIS).

Contributor: **Menno Andriess**

File: [S5066-HFChat-1.pcap](#) (4KB)

Description: **A line of text is send and acknowledged**

File: [S5066-HFChat-Rejected.pcap](#) (2KB)

Description: **A line of text is send and rejected because the other node does not respond.**

Contributor: **Taner Kurtulus**

File: [S5066-Expedited.pcap](#) (2KB)

Description: **A line of text is sent/received with Expedited S_Primis and confirmed**

STANAG 5066 DTS

These captures show a successful BFTP transfer over a hardlink between two peers.

Contributor: **İbrahim Can Yüce**

File: [Stanag5066-TCP-ENCAP-Bftp-Exchange-tx-rx.pcapng](#)

Description: **BFTP file transfer exchange D_PDUs captured directly from the line.**

File: [Stanag5066-RAW-ENCAP-Bftp-Exchange-tx.pcap](#)

Description: **BFTP file transfer exchange D_PDUs encapsulated in TCP, then handed off to S5066 dissector.**

RTP Norm

These captures show samples of RTP NORM transfers.

Contributor: **Julian Onions**

File: [rtp-norm-transfer.pcap](#) (291.2 KB)

Description: **A norm file transfer over multicast (to one acking host).**

File: [rtp-norm-stream.zip](#) (673.4 KB)

Description: **A portion of a NORM stream transfer.**

DCE/RPC and MSRPC-based protocols

Captures in this section show traffic related to various DCE/RPC-based and MSRPC-based interfaces.

File: [dcerpc-fault-stub-data-02.pcap.gz](#)

Description: A DCERPC Fault pdu with extended error information (MS-EERR).

DSSETUP MSRPC interface

File: [dssetup_DsRoleGetPrimaryDomainInformation_standalone_workstation.cap](#) (1.0 KB)

Description: [DsRoleGetPrimaryDomainInformation](#) operation (DSSETUP) against a standalone workstation.

File: [dssetup_DsRoleGetPrimaryDomainInformation_ad_member.cap](#) (1.5 KB)

Description: [DsRoleGetPrimaryDomainInformation](#) operation (DSSETUP) against an Active Directory domain member workstation.

File: [dssetup_DsRoleGetPrimaryDomainInformation_ad_dc.cap](#) (1.0 KB)

Description: [DsRoleGetPrimaryDomainInformation](#) operation (DSSETUP) against an Active Directory DC.

File: [dssetup_DsRoleDnsNameToFlatName_w2k3_op_rng_error.cap](#) (1.0 KB)

Description: In Windows Server 2003, there is only one operation ([DsRoleGetPrimaryDomainInformation](#)) in the DSSETUP interface. This capture shows that the [DsRoleDnsNameToFlatName](#) is not supported in Windows Server 2003.

File: [dssetup_DsRoleDnsNameToFlatName_w2k.cap](#) (1.0 KB)

Description: [DsRoleDnsNameToFlatName](#) operation against a Windows 2000 system without MS04-011 applied

File: [dssetup_DsRoleUpgradeDownlevelServer_MS04-011_exploit.cap](#) (5.0 KB)

Description: traffic of an exploit for the security vulnerability exploitable using the [DsRoleUpgradeDownlevelServer](#) operation (Windows 2000 and Windows XP systems without MS04-011 applied)

NSPI MSRPC Interface

File: [nspi.pcap](#) (7.2 KB)

Description: MAPI Profile creation between Microsoft Exchange 2003 and the mail applet in the configuration panel (Windows 2003 Server and Windows XP Professional)

WINREG Interface

File: [dcerpc-winreg-with-rpc-sec-verification-trailer.pcap](#)

Description: smbtoriture in Samba's make test. Frame 34 contains a [rpc_sec_verification_trailer](#).

WITNESS Interface

File: [dcerpc_witness.pcapng](#)

Description: Sample Witness traffic

IPsec - ESP Payload Decryption and Authentication Checking Examples

File: [ipsec_esp_capture_1.tgz](#) ESP

Description: Example for ESP payload Decryption and Authentication checking for simple transport mode in v4/v6.

File: [ipsec_esp_capture_2.tgz](#) ESP

Description: Example for ESP payload Decryption and Authentication checking for tunnel mode in v4.

File: [ipsec_esp_capture_3.tgz](#) ESP

Description: Example for ESP payload Decryption with authentication Checking for some more Encryption Algorithms not defined in RFC4305.

File: [ipsec_esp_capture_5.tgz](#) ESP

Description: Example of Authentication Checking and decryption using Hexadecimal keys.

Pro-MPEG FEC - Professional video FEC data over RTP

See protocol description, [2dParityFEC](#) for details.

File: [2dParityFEC-Example.cap.gz](#)

Description: Example of row and column FEC data mixed with MPEG2 transport stream data in standard RTP packets.

SSL with decryption keys

File: [snakeoil2_070531.tgz](#)

Description: Example of SSL encrypted HTTPS traffic and the key to decrypt it. (example taken from the dev mailinglist)

Files: [dump.pcapng](#), [premaster.txt](#)

Description: Capture and related keylog file of a openssl's s_client/s_server HTTP GET request over TLSv1.2 with 73 different cipher suites (generated using openssl-connect for Bug 9144 - Update TLS ciphers)

File: [mysql-ssl.pcapng](#) (11 KB, from <https://git.lekensteyn.nl/peter/wireshark-notes/commit/tls/mysql-ssl.pcapng?id=8cfd2f667e796e4e0e3bdbbe117e515206346f74a>, SSL keys in capture file comments)

File: [mysql-ssl-larger.pcapng](#) (show variables response in two TLS records and multiple TCP segments) (22 KB, from <https://git.lekensteyn.nl/peter/wireshark-notes/commit/tls/mysql-ssl-larger.pcapng?id=818f97811ee7d9b4c5b2d0d14f8044e88787bc01>, SSL keys in capture file comments)

File: [smtp-ssl.pcapng](#) (8.8 KB, from <https://git.lekensteyn.nl/peter/wireshark-notes/commit/tls/smtp-ssl.pcapng?id=9615a132638741baa2cf839277128a32e4fc34f2>, SSL keys in capture file comments)

File: [smtp2525-ssl.pcapng](#) (SMTP over non-standard port 2525) (8.8 KB, from <https://git.lekensteyn.nl/peter/wireshark-notes/commit/tls/smtp2525-ssl.pcapng?id=d448482c095363191ff5b5b312fa8f653e482425>, SSL keys in capture file comments)

File: [xmpp-ssl.pcapng](#) (15 KB, from <https://git.lekensteyn.nl/peter/wireshark-notes/commit/tls/xmpp-ssl.pcapng?id=fa979120b060be708e3e752e559e5878524be133>, SSL keys in capture file comments)

File: [pop-ssl.pcapng](#) (POP3) (9.2 KB, from <https://git.lekensteyn.nl/peter/wireshark-notes/commit/tls/pop-ssl.pcapng?id=860c55ba8449a877e21480017e16cf902b69fb>, SSL keys in capture file comments)

File: [imap-ssl.pcapng](#) (10 KB, from <https://git.lekensteyn.nl/peter/wireshark-notes/commit/tls/imap-ssl.pcapng?id=1123e936365c89d43e9f210872778d81223af36d>, SSL keys in capture file comments)

File: [pgsql-ssl.pcapng](#) (7.7 KB, from <https://git.lekensteyn.nl/peter/wireshark-notes/commit/tls/pgsql-ssl.pcapng?id=836b6f746df24aa0fa29b71806d8d0e496c2a68>, SSL keys in capture file comments)

File: [ldap-ssl.pcapng](#) (8.3 KB, from <https://git.lekensteyn.nl/peter/wireshark-notes/commit/tls/ldap-ssl.pcapng?id=d931120107e7429a689a8350d5e49c1f1147316f>, SSL keys in capture file comments)

File: [http2-16-ssl.pcapng](#) (HTTP2 with ALPN h2-16 extension) (5.1 KB, from <https://git.lekensteyn.nl/peter/wireshark-notes/commit/tls/http2-16-ssl.pcapng?id=a24c03ce96e383faf2a624bfabd5cc843e78ab2a>, SSL keys in capture file comments)

File: [amqps.pcapng](#) (AMQP using RabbitMQ server and Celery client) (5.1 KB, from <https://git.lekensteyn.nl/peter/wireshark-notes/commit/tls/amqps.pcapng?id=3c00336b07f1fec0fb13af3c7d502d51fab732b7>, SSL keys in capture file comments)

The *-ssl.pcapng capture files above can be found at <https://git.lekensteyn.nl/peter/wireshark-notes/tree/tls/> with the pre-master key secrets being available in the capture file comments. See the commit log for further details. The keys have been extracted from the OpenSSL library using a LD_PRELOAD interposing library, libsslkeylog.so (sslkeylog.c).

MCPE/RakNet

File: [MCPE-0.15.pcapng](#)

Description: Example of Minecraft Pocket Edition 0.15.x on RakNet protocol.

NDMP

File: [ndmp.pcap.gz](#)

Description: Example of NDMP connection using MD5 method. Capture shows some additional NDMP traffic not recognized by wireshark (ndmfs extension).

Kismet Client/Server protocol

File: [kismet-client-server-dump-1.pcap](#)

Description: Example traffic between Kismet GUI and Kismet Server (beginning of kismet session).

File: [kismet-client-server-dump-2.pcap.gz](#)

Description: Example traffic between Kismet GUI and Kismet Server (after new wireless network has been detected).

Kismet Drone/Server protocol

File: [kdsp.pcap.gz](#)

Description: Example traffic between Kismet drone and Kismet sever. See [KDSP](#)

DTLS with decryption keys

File: [snakeoil.tgz](#)

Description: Example of DTLS simple encrypted traffic and the key to decrypt it. (Simple example made with [OpenSSLv0.9.8b](#))

ETHERNET Powerlink v1

File: [epl_v1.cap.gz](#)

Description: Example traffic of EPL V1. Capture shows the traffic of an EPLv1 [ManagingNode](#) and three [ControlledNodes](#).

ETHERNET Powerlink v2

File: [epl.cap.gz](#)

Description: Example traffic of EPL. Capture shows the boot up of an EPLv2 [ManagingNode](#) and one [ControlledNode](#).

File: [epl_sdo_udp.cap](#)

Description: Example traffic of EPL. Capture shows an access to the object dictionary of a [ControlledNode](#) within an EPL-Network from outside via [ServiceDataObject](#) (SDO) by UDP.

Architecture for Control Networks (ACN)

File: [acn_capture_example_1.cap](#)

Description: Example traffic of ACN. Capture shows just a few examples.

Intellon Homeplug (INT51X1)

File: [homeplug_request_channel_estimation.pcap](#)

Description: Example traffic of Homeplug. Capture of Request Channel Estimation (RCE) frame. File:

[homeplug_request_parameters_and_statistics.pcap](#)

Description: Example traffic of Homeplug. Capture of Request Parameters and Statistics (RPS) frame. File:

[homeplug_network_statistics_basic.pcap](#)

Description: Example traffic of Homeplug. Capture of Network Statistics basic (NS) frame.

Wifi / Wireless LAN captures / 802.11

File: [Network_Join_Nokia_Mobile.pcap](#)

Description: 802.11 capture of a new client joining the network, authenticating and activating WPA ciphering

File: [wpa-Induction.pcap](#)

Description: 802.11 capture with WPA data encrypted using the password "Induction".

File: [wpa-eap-tls.pcap.gz](#)

Description: 802.11 capture with WPA-EAP. PSK's to decode:

a5001e18e0b3f792278825bc3abff72d7021d7c157b600470ef730e2490835d4
79258f6ceeced3482b92deaabdb675f09bcb4003ef5074f5ddb10a94ebe00a
23a9ee58c7810546ae3e7509fda9f97435778d689e53a54891c56d02f18ca162

File: [Http.cap](#)

Description: 802.11n capture with PPI encapsulation containing HTTP data.

File: [mesh.pcap](#)

Description: 802.11s capture with Radiotap encapsulation.

TrunkPack Network Control Protocol (TPNCP)

File: [tpncp_udp.pcap](#)

Description: Example traffic of TPNCP over UDP.

File: [tpncp_tcp.pcap](#)

Description: Example traffic of TPNCP over TCP.

EtherCAT

File: [ethercat.cap.gz](#)

Description: **Example traffic of Ethercat. Capture shows the boot up of an network with Beckhoff 1100, 1014, 2004, 3102 and 4132 modules.**

iWARP Protocol Suite

These captures show MPA/DDP/RDMAP communication.

Contributor: **Philip Frey**

File: [iwarp_connect.tar.gz](#) (1.4KB)

Description: **MPA connection setup without data exchange.**

File: [iwarp_send_recv.tar.gz](#) (1.9KB)

Description: **MPA connection setup followed by RDMA Send/Receive data exchange.**

File: [iwarp_rdma.tar.gz](#) (7KB)

Description: **MPA connection setup followed by RDMA Write/Read data exchange.**

IPv6 (and tunneling mechanism)

File: [Teredo.pcap](#)

Description: **Example of IPv6 traffic using Teredo for encapsulation.**

File: [6to4.pcap](#)

Description: **Example of IPv6 traffic using 6to4 for encapsulation.**

File: [6in4.pcap.gz](#)

Description: **Example of IPv6 traffic using 6in4 for encapsulation.**

File: [6LoWPAN.pcap.gz](#)

Description: **IPv6 over IEEE 802.15.4.**

File: [sr-header.pcap](#)

Description: **IPv6 Segment Routing header.**

TTEthernet (TTE)

File: [TTE_mix_small.pcap](#)

Description: **Example of TTEthernet traffic showing different traffic classes.**

GSM

File: [abis-accept-network.pcap](#)

Description: **Abis: Setup + Location Updating Request + Accept + SMS. Note: Set "Use GSM SAPI Values" in LAPD preferences.**

File: [abis-reject-network.pcap](#)

Description: **Abis: Setup + Location Updating Request + Reject. Note: Set "Use GSM SAPI Values" in LAPD preferences.**

File: [gsm_call_1525.xml](#)

Description: **Um: Mobile phone called the number 1525 and stayed connected for 2-3 seconds.**

File: [gsm_sms2.xml](#)

Description: **Um: SMS containing "abc"**

UMTS

IuB interface

File: [UMTS_FP_MAC_RLC_RRC_NBAP.pcap](#)

Description: **IuB: Mobile Originating Video Call Signaling and traffic. Contains all common IuB protocols: NBAP, FP, MAC, RLC, RRC**

Iu-CS over IP interface(MoC)

File: [Mobile Originating Call\(AMR\).pcap](#)

Description: **Iu-CS: Mobile Originating Call Signaling and Bearer in IP network AMR(12.2).**

Iu-CS over IP interface(MtC)File: Mobile Terminating Call(AMR).pcapDescription: **Iu-CS: Mobile Terminating Call Signaling and Bearer in IP network AMR(12.2)****X11**File: x11-gtk.pcap.gz A GTK app opening only an error dialog. Exercises a surprising portion of the RENDER extension.File: x11-shape.pcap.gz vtwm, xcalc, and xeyes. Multiple SHAPE extension requests and one ShapeNotify event.File: x11-composite.pcap.gz vtwm, 2x xlogo, and xcompmgr. Exercises parts of Composte, Damage, and XFixes extensions.File: x11-glx.pcap.gz A couple of frames of glxgears, to demonstrate GLX/glRender dissection.File: x11-xtest.pcap.gz An xtest test run, uses the XTEST extension.File: x11-res.pcap.gz xlogo and one iteration of xrestop, to demonstrate the X-Resource extension.File: x11-xinput.pcapng.gz **xinput list**, to demonstrate the XInputExtension extension.**Gopher**File: gopher.pcap A capture of the Gopher protocol (a gopher browser retrieving few files and directories).**InfiniBand**File infiniband.pcap (8.7KB)

Description A libpcap trace file of low level InfiniBand frames in DLT_ERF format.

Network News Transfer Protocol (NNTP)File: nntp.pcap A capture of the NNTP protocol (a KNode client retrieving few messages from two groups on a Leafnode server).**FastCGI (FCGI)**File: fcgi.pcap.gz A capture of the FCGI protocol (a single HTTP request being processed by an FCGI application).**Lontalk (EIA-709.1) encapsulated in EIA-852**File: eia709.1-over-eia852.pcap A capture of the Lontalk homeautomation protocol. Lots of button presses, temperature sensors, etc.**DVB-CI (Common Interface)**File: dvb-ci_1.pcap

A DVB-CI module is plugged into a receiver and initialized. The receiver asks the module to descramble a Pay-TV service. After a moment, there's a service change and another request to descramble the newly selected service. After some seconds, the module is removed from the receiver.

File: dvb-ci_2.pcap

Communication between a DVB-CI host and module where the maximum message size on the link layer is 16 bytes. Larger messages from upper layers must be fragmented and reassembled.

ANSI C12.22 (c1222)File: c1222overIPv4.cap.gz (ANSI C12.22) C12.22 read of Standard Table 1 with response. This communication was using *Ciphertext with Authenticaon* mode with key 0 = 6624C7E23034E4036FE5CB3A8B5DAB44File: c1222_over_ipv6.pcap (ANSI C12.22) C12.22 read of Standard Tables 1 and 2 with response. This communication was using *Ciphertext with Authenticaon* mode with key 0 = 000102030405060708090A0B0C0D0E0F**HDCP**File: hdcp_authentication_sample.pcap

HDCP authentication between a DVB receiver and a handheld device**openSAFETY**

File: [opensafety_udp_trace.pcap](#) openSAFETY communication using UDP as transport protocol

File: [opensafety_epl_trace.pcap](#) openSAFETY communication using Ethernet Powerlink V2 as transport protocol

File: [opensafety_sercosiii_trace.pcap](#) openSAFETY communication using SercosIII as transport protocol

Radio Frequency Identification (RFID), and Near-Field Communication (NFC)

File: [Read-FeliCa-Lite-NDEF-Tags.cap](#) A trace file from a USB-connected NFC transceiver based upon the NXP PN532 chipset, containing packets from a successful attempt at enumerating, and reading the contents of two Sony FeliCa Lite tags.

IEC 60870-5-104

File: [iec104.pcap](#) IEC 60870-5-104 communication log.

File: [IEC104_SQ.pcapng](#) IEC 60870-5-104 communication log with SQ bit.

SISO-STD-002

Simulation Interoperability Standards Organization SISO-STD-002 Standard for Link 16 Simulation **File:**

[siso_std_002_annex_b_example.pcap](#) . **Standard:**

<http://www.sisostds.org/ProductsPublications/Standards/SISOSTandards.aspx>

STANAG-5602 SIMPLE

Standard Interface for Multiple Platform Evaluation **File:** [stanag-5602-simple-example.pcap](#) . **Standard:**

http://assistdoc1.dla.mil/qsDocDetails.aspx?ident_number=213042

S7COMM - S7 Communication

[s7comm_downloading_block_db1.pcap](#) s7comm: Connecting and downloading program block DB1 into PLC

[s7comm_program_blocklist_onlineview.pcap](#) s7comm: Connecting and getting a list of all available blocks in the S7-300 PLC

[s7comm_reading_plc_status.pcap](#) s7comm: Connecting and viewing the S7-300 PLC status

[s7comm_reading_setting_plc_time.pcap](#) s7comm: Connecting, reading and setting the time of the S7-300 PLC

[s7comm_varservice_libnodavedemo.pcap](#) s7comm: running libnodave demo with a S7-300 PLC, using variable-services reading several different areas and sizes

[s7comm_varservice_libnodavedemo_bench.pcap](#) s7comm: running libnodave demo benchmark with S7-300 PLC using variable-services to check the communication capabilities

Harman Pro HiQnet

[hiqnet_netsetter-soundcraft_session.pcapng.gz](#) hiqnet: A session between Harman NetSetter desktop application and a Soundcraft Si Compact 16 digital mixing console reading and writing very basic informations.

[hiqnet_visiremote-soundcraft_session.pcapng.gz](#) hiqnet: A session between Soundcraft's ViSiRemote iPad application and a Soundcraft Si Compact 16 digital mixing console playing around with different values. The VU-meters stream is not part of this capture because it uses another protocol (UDP on port 3333).

DJI Drones control Protocol

[djiuav.pcap.gz](#) DJI drone getting managed and sending video stream.

HCrt (Hotline Command-response Transaction) Protocol

[hcrt.pcap](#) Some captures of the HCRT protocol. Specifications of the protocol can be found here:

<https://github.com/ShepardSiegel/hotline/tree/master/doc>.

DOF (Distributed Object Framework) Protocols

[tunnel.pcap](#) Contains a DOF session which exercises many aspects of the protocol, best viewed with display filter "dof"

Most of the packets in this capture are encrypted, to view them:

1. Open Edit/Preferences.
2. Expand Protocols, select DOF.
3. Click "Edit..." on DPS Identity Secrets.
4. Click "New".
5. In Domain, add '[{03}:james.simister@us.panasonic.com]' without the quotes.
6. In Identity, add '[{03}:dt@pan9320.pslcl.com]'.
7. In Secret, add '2BCFE378663EBF2B5C4D8F971175B4767984CC2544EA969FB37799C777CF4C8F' without the quotes.
8. Click OK on all the dialogs.

[dof-small-device.pcapng](#) Example of a small device communicating with a server.

[dof-short-capture.pcapng](#) Larger example of two nodes communicating.

Both of these captures create secure sessions, but the keys are not provided.

Information on the DOF protocols can be found at <https://opendof.org>. Full protocol specifications are available on the downloads page.

CBOR (Concise Binary Object Representation)

[coap-cbor.pcap](#) The CBOR test vectors over CoAP defined here: <https://github.com/cbor/test-vectors/>

RADIUS (RFC 2865)

File: [radius_localhost.pcapng](#)

This file contains RADIUS packets sent from localhost to localhost, using FreeRADIUS Server and the radtest utility.

Description of packets:

Frame	Description	shared secret	
		on server	on client
1-4	user steve authenticating with EAP-MD5, password bad (Access rejected)	testing123	
5-8	user steve authenticating with EAP-MD5, password testing (Access Accepted)	testing123	
9-10	same user, same password, PAP (Access Accepted)	testing123	
11-12	same user/password, CHAP (Access Accepted)	testing123	
13-14	same user, password bad_password, PAP (Access Rejected)	testing123	
15-17	The client has a wrong shared secret, the server does not answer	bad_secret	testing123
18-19	Authentication successfull with PAP	bad_secret	

Distributed Interactive Simulation (IEEE 1278)

Distributed Interactive Simulation (DIS) is described here.

Capture files:

- [DIS_EntityState_1.pcapng](#) - Basic EntityState PDUs capture
- [DIS_EntityState_2.pcapng](#) - Another basic EntityState PDUs capture
- [DIS_EnvironmentalProcess.pcapng](#) - EnvironmentalProcessPDU capture
- [DIS_Signal.pcapng](#) - Signal PDUs capture
- [DIS_signal_and_transmitter.pcapng](#) - Signal and Transmitter PDUs capture

Financial Information eXchange (FIX)

Capture files generated using the "f8test" program from the open-source FIX protocol implementation [Fix8](#) (version 1.3.4).

- [fix.pcap](#)
- [fix-ssl.pcap](#)

The SSL keylog file for `fix-ssl.pcap` should contain:

CLIENT_RANDOM 330221F6F09769F5F0E128551DF5C75F18464BEFB88B9CFE77FB83EFEEEE4A6B53494FD0D729C23E590F8F7F9B150D534E5F225AA60873E91719A289D8BB92A9CDB482185213F11BB105C7C634A32BCEF

UserLog

userlog is user flow logs of H3C device.

Flow logging records users' access to the extranet. The device classifies and calculates flows through the 5-tuple information, which includes source IP address, destination IP address, source port, destination port, and protocol number, and generates user flow logs. Flow logging records the 5-tuple information of the packets and number of the bytes received and sent. With flow logs, administrators can track and record accesses to the network, facilitating the availability and security of the network.

UserLog.pcap

OpenFlow

`openflow_v1.3_messages.pcapng.gz`: A collection of OpenFlow v1.3 packets (taken from bug 9283).

ISO 8583-1

`iso8583_messages.tar.gz`: A collection of ISO8583-1 packets (taken from bug 12244).

DNP3

`dnp3_read.pcap`; `dnp3_select_operate.pcap`; `dnp3_write.pcap`. Source: pcap.net by bwilkerson.

System Calls

`curl-packets+syscalls-2016-05-04.pcapng`: Network traffic and system calls generated by running `curl` to download a file.

Linux netlink

`netlink.pcap`: Linux netlink with rtnetlink (route) and Netfilter protocols, captured in a Ubuntu 14.04.4 QEMU VM. Also contains NFQUEUE traffic with some DNS queries.

`netlink-nflog.pcap`: Linux netlink embedding rtnetlink and NFLOG (Netfilter) protocols. The NFLOG packets contain HTTP and ICMP packets, using `nf-queue` program as listener.

`netlink-contrack.pcap`: Linux netlink, an HTTP request and DNS query with Netfilter (NFQUEUE and contrack) packets. Used the `contrack -E` command as listener.

`netlink-ipset.pcap`: Linux netlink-netfilter traffic while executing various ipset commands.

`nlmon-big.pcap`: Linux netlink traffic captured on a MIPS (big-endian) device.

Related (NFLOG):

- `nflog.pcap`: another HTTP and ICMP trace captured with `tcpdump -i nflog:42` (NFLOG encapsulation, not netlink).
- `nflog-ebtables.pcapng`: NFLOG via ebtables (family `NFPROTO_BRIDGE`). Contains ARP, IPv4, IPv6, ICMP, ICMPv6, TCP.

Oracle TNS / SQLnet / OCI / OPI

`TNS_Oracle1.pcap` A sample of TNS traffic (dated Apr 2014).

`TNS_Oracle2.pcap` A bunch of INSERT INTO's on an Oracle server (dated Apr 2009).

`TNS_Oracle3.pcap` A bunch of SELECT FROM's on an Oracle server (dated Apr 2009).

`TNS_Oracle4.pcap` Oracle server redirecting to an alternate port upon connection (dated Apr 2009).

`TNS_Oracle5.pcap` Another sample of TNS traffic (dated Oct 2015).

`7_oracle10_2016.pcapng` Oracle 10 examples (dated Dec 2016)

`8_oracle11_2016.pcapng` Oracle 11 examples (dated Dec 2016)

`9_oracle12_2016.pcapng` Oracle 12 examples (dated Dec 2016)

[10_sqldeveloper10_2016.pcapng](#) Oracle 10 SQL Developer (dated Dec 2016)

[11_sqldeveloper11_2016.pcapng](#) Oracle 11 SQL Developer (dated Dec 2016)

[12_sqldeveloper12_2016.pcapng](#) Oracle 12 SQL Developer (dated Dec 2016)

[oracle12-example.pcapng](#) Oracle 12 examples.

Special thanks to pcapr.net project.

HP ERM

[hp-erm-1.cap](#) Simple sample of 2 pings, one untagged on VLAN 10, one tagged on VLAN 2010 and the HP ERM results of the port of the device sending the ICMP Echo Request.

[hp-erm-2.cap](#) Complex sample of 2 pings, one untagged on VLAN 10, one tagged on VLAN 2010 and the HP ERM results of the port of the device sending the ICMP Echo Request, the port on the second switch connecting to the first (both VLANs tagged) and a double-encapsulated sample.

Automotive Protocols

[udp-nm_anon.pcap](#) Simple UDP-NM packet.

Captures in specific file formats

[i4b.trace](#) An I4B (ISDN for BSD) capture file.

[D-1-Anonymous-Anonymous-D-OFF-27d01m2009y-00h00m00s-0a0None.trc](#) An EyeSDN capture file containing DPNSS packets.

[erf-ethernet-example.erf](#) A Endace ERF capture file.

Captures used in Wireshark testing

The following are used during Wireshark testing, and are from the test/captures directory.

[c1222_std_example8.pcap](#) ANSI C12.22 packets, used to cover bug 9196.

[dhcp-nanosecond.pcap](#) DHCP with nanosecond timing.

[dhcp.pcapng](#) DHCP saved in pcapng format.

[dns_port.pcap](#) DNS running on a different port than 53.

[dns+icmp.pcapng.gz](#) DNS and ICMP saved in gzipped pcapng format.

[dvb-ci_UV1_0000.pcap](#) DVB Common Interface (DVB-CI) packet.

[rsasnaeoil2.pcap](#) SSL handshake and encrypted payload.

[sample_control4_2012-03-24.pcap](#) ZigBee protocol traffic.

[snakeoil-dtls.pcap](#) DTLS handshake and encrypted payload.

[wpa-Induction.pcap.gz](#) WiFi 802.11 WPA traffic.

[wpa-eap-tls.pcap.gz](#) WiFi 802.11 WPA-EAP/Rekey sample.

[segmented_fpm.pcap](#) FPM and Netlink used for Lua plugin TCP-based dissector testing.

Discussion

Is sample the right name, instead of example? I always think about a sampling rate. - *Ulf Lamping*

In this context, "sample" and "example" are interchangeable. I'm not sure which is more formally correct. - *Gerald Combs*

Think of "sample" as in "*take a free sample of our magazine*". Sampling really means that you're taking samples at specific points in time, so it is OK. - *Olivier Biot*

Hmmm, still unsure. Following your logic, Sample and Capture would have almost the same meaning. But I'm usually not interested that the capture is sampled from a specific network at a specific point in time, I'm looking for examples,

how a specific network traffic does look like. I would think that sample in the way it's used here, is just an abbreviation for example, or do I miss something here. - *Ulf Lamping*

I see. Maybe then "example capture" is more appropriate than "sample capture" or "capture(d) sample". - *Olivier Biot*

What about "example sample"... Everyone would get it, and, most of it, it rhymes! 😊 - *Luis Ontanon*

What are the rules regarding attaching sample captures? I mean those that aren't yours. If it was seen "in the wild" (e.g., attached to an email on the mailing list or a bug), is that public enough for someone to attach it here? - *Jeff Morriss*

Should we add example captures from the mailing list here? In those cases it is obvious that they are donated as examples of a protocol? I am thinking of something like <http://www.wireshark.org/lists/wireshark-dev/200003/msg00078.html> -- *ronnie*

I've been thinking about that too -- if a sample example 😊 is sent to the list it's publicly available on the net intended or not and could be added to the examples? -- at least if its not obviously a (bad) mistake -- *Anders*

Requests for particular captures

I think some Tor traffic captures would be a good addition. Maybe also examples using different pluggable transports. I will upload later if I end up doing some. 😊

Could someone add a capture of Internet Key Exchange (IKE) protocol or IKEv2 ? 🍕

Hi I am searching for a capture of MACSec frames according to 802.1ae. Thanks *karsten_g@rad.com*

Could someone please add a capture of GTP-U V1 messages, whatever the interface that is being captured?

Can someone please add a capture of C12.22 messages?

Can someone please add a capture of dnp3 messages both udp and tcp?

Can someone please add a capture of PROFINET like PNIO packages and some commands of the used Network (like names and IP's of the devices)? Thanks a lot.

Can Someone add a RTP capture with AMR audio. If it is captured from a push-to-talk session it would be wonderful for me. Thanks.

Can someone add a DOCSIS cable modem capture? Thanks

Can somebody add a packet capture of RADIUS conforming to RFC 2865 and RFC 2866?

Can anybody provide the wireshark capture of VoIP?

I need a capture like the previous : VoIP but an international call. (need to check delays for a university work). Thanks

Does anybody out there have pcap files with the following?: Citrix ICA traffic, CU-SeeMe Video conference traffic, EIGRP (Enhanced Interior Gateway Routing Protocol) traffic, X-Win remote access, SunRPC traffic, SOCKS traffic, SKYPE traffic, pcAnywhere traffic, NNTP traffic or MGCP traffic???

Can anybody provide the wireshark capture of RANAP?

An Iu-CS capture would be welcomed, containing both RANAP and Iu-UP traces of for example an AMR voice call.

I added Iu-CS capture just now!!! 😊 Please look under UMTS section. -Samba
sambasiva.manchili@nexustelecom.com When you open this in it may show IuUP packets, as UDP stream. In this case please click on relevant UDP packet and then select from **menu Analyze---**>*Decode As* RTP(both ports) under Transport tab. In case of any help required, please do not hesitate to write to me.

Anyone have a capture of RTP conforming to RFC 2198 (Redundant Audio) or RFC 2733 (Generic FEC) encoding? Associated SIP/SDP signaling would be a bonus.

Does anyone have any capture files containing "raw" ATM packets (with AAL0/AAL5 would be handy)?. Thank you --

Estou desenvolvendo uma ferramenta em C++ que tem como entrada uma mensagem no formato hexadecimal, encapsulada nos protocolos SS7, do tipo: ISUP, INAP e CAP. E como saída um arquivo .cap ou .pcap para ser lido pelo Wireshark. Para concluir esse projeto gostaria de ter um exemplo de arquivo de entrada (extensão .cap o .pcap) encapsulado nos protocolos INAP E CAP, pois nos arquivos de exemplo disponíveis só encontrei do protocolo ISUP.

I am developing a tool in C++ that has as input a message in the hexadecimal format, encapsulated in SS7 protocols, of the type: ISUP, INAP and CAP. As exit a file .cap or .pcap to be read by the WireShark. To conclude this project it would like to have an example file (extension cap pcap) encapsulated in protocols INAP and CAP, because in the example files I only found of ISUP protocol.

Can anyone add a UCP capture? especially 5x series messages but others would be helpful too... Thanks

Does anyone have HDLC traffic, like for example between WAN routers?

Does anyone have Synchronous Ethernet Capture? -RadhaKrishna arkrishna@alcatel-lucent.com

Can someone add a TRIP protocol capture (RFC 3219)?

Can somebody provide a capture of a Cisco wireless accesspoint (any model) connecting to the controller (either via LWAPP or CAPWAP)?

Does anyone has any ETHOAM captures? Please upload.

Downloading all traces

Is there an easy way to download all of the traces? If yes, please email me. -grant@wildpackets.com

Yes,

```
wget -nc -r -H -l 1 --
accept=cap,gz,pcap,zip,iptrace,snoop,txt,CAP http://wiki.wireshark.org/SampleCaptures
```

under UN*X or Cygwin -Phil

Thanks a ton! -grant@wildpackets.com

That didn't work with wget 1.9.1:

```
$ wget -nc -r -H -l 1 --accept=cap,gz,pcap,zip,iptrace,snoop,txt,CAP
http://wiki.wireshark.org/SampleCaptures --22:19:05--
http://wiki.wireshark.org/SampleCaptures =>
`wiki.wireshark.org/SampleCaptures' Resolving wiki.wireshark.org...
65.208.228.223 Connecting to wiki.wireshark.org[65.208.228.223]:80...
connected. HTTP request sent, awaiting response... 200 OK Length:
unspecified [text/html] [ <=> ] 42,305 68.22K/s 22:19:06 (68.12 KB/s)
- `wiki.wireshark.org/SampleCaptures' saved [42305] Removing
wiki.wireshark.org/SampleCaptures since it should be rejected.
FINISHED --22:19:06-- Downloaded: 42,305 bytes in 1 files
```

-Guy Harris

Damn, I don't know why this wget commands gets a bad Forbidden from the server when politely asking for some files



```
wget --server-response -r -l 1 --follow-tags=link,a \ --
accept=cap,gz,pcap,zip,iptrace,snoop,txt,CAP, \
'http://wiki.wireshark.org/SampleCaptures'
```

Someone please tell me...

ok, here is something that _works_ (tested) but then, ahem, it's ugly:

```
lynx -dump 'http://wiki.wireshark.org/SampleCaptures' | \ grep -Eh --
only-matching 'http://[^\ ]+' | grep AttachFile | \ while read a; do
htget $a; done
```

Beware when cutting/pasting, some spaces are inserted after the backslash and bash shells don't like that.

--Phil

ok, I tried this one on my suse 9.3 box but htget was not found. A quick google showed that this tool seems to be Debian specific. It looks natural for us "newbie distribution users" to be more and more jealous of Debian... Anyway I found the

source code at http://ftp.cvut.cz/debian/pool/main/h/htget/htget_0.93-1.1woody1.tar.gz and expanding the file, followed by 'make', 'make install' (as root) and copying htgetrc to ~/.htgetrc did the trick. Thanks so much for this, ahem, ugly skript that has the undeniable advantage of working great!

--Eberhard

The reason the wget doesn't work is the `<meta name="robots" content="index,nofollow">` in the html of the wiki pages. Is there a reason we have that?

--Rich van der Hoff

Try using Download Accelerator Plus (DAP). When integrated with Firefox there is an option called "Save all .." in the right-click context menu

-- Razor

Hi 😊

I used htget, but got all these Sample.* Prefixes, which may you want to remove:

first_backup_

rename like this:

```
for i in SampleCaptures\?action\=AttachFile* ; do mv "$i" $( echo
$i|sed 's/S.* target=//g' ); done
```

opt. move NetMon files in a separate directory:

```
mkdir NetMon; mv `file * |grep NetMon| awk '{ print $1 }'| tr ':' ' '
` NetMon/
```

-- netbeisser 😊

The "Forbidden" response to wget is caused by the "do=view" part of the link. These files that cause this error can be retrieved okay if substituting this part with "do=get". Suggest the following command (that also has a benefit of auto-renaming the files and doesn't use that hideous htget utility):

```
lynx -dump 'http://wiki.wireshark.org/SampleCaptures' |
grep -Eh --only-matching 'http://[^\ ]+' | grep AttachFile.*target= |
sed 's/do=view/do=get/' | sort | uniq |
while read i; do wget -O ${i##*=} "$i"; done
```

-- AVN

wget respects the robot meta tag, so you need to ignore that. '-A' did not work for me, probably because it does not match the query part. This works for me (wget 1.15):

```
wget -e robots=off -nc -r -l 1 --accept-regex='.*do=get.*(p?
cap|pcapng)(\.\gz)?$' --ignore-case
http://wiki.wireshark.org/SampleCaptures?action=AttachFile
```

The above command will result in file names such as 'SampleCaptures?...&target=foo.pcap'. To get "foo.pcap" instead, you could use the following commands to create symlinks (the advantage is that you can run the wget command again which will skip existing files):

```
mkdir captures && cd captures && ln -s ../wiki.wireshark.org .;
find wiki.wireshark.org/ -name '*target=*' | php -r 'while ($line =
fgets(STDIN)) { $line = trim($line); symlink($line,
urldecode(preg_replace("#.*target=#", "", $line))); }'
```

As of this writing, there are 634 files matching that filter which have a total size of 537 MiB. --Lekensteyn

Does anyone have a sample trace of Q-in-Q (IEEE 802.1ah) or MAC-in-MAC? If you add either to these samples, I would appreciate if you drop me a note at richman30@ix.netcom.com . Thank you.

--LMR

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