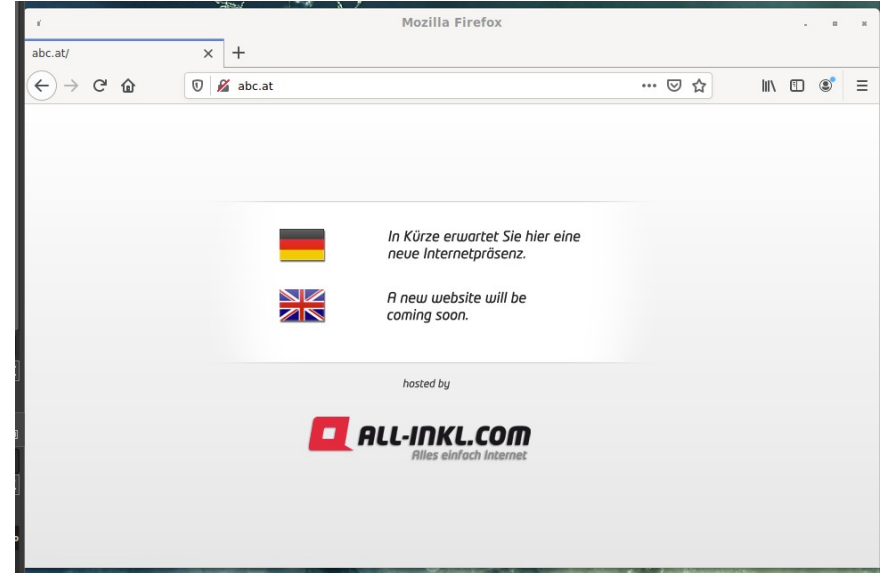
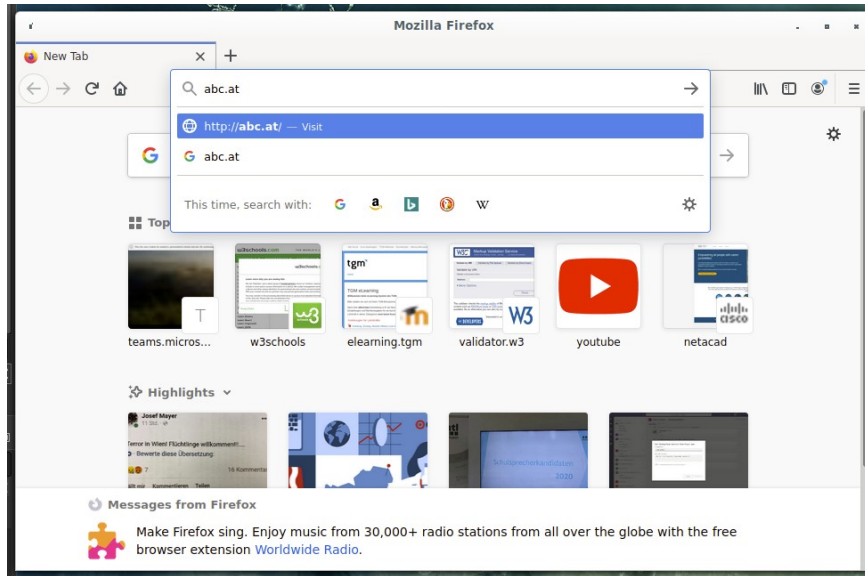


Webseitenaufruf



Webseitenaufruf

GET / HTTP/1.1

Host: mail.webfischer.at

Connection: keep-alive

Upgrade-Insecure-Requests: 1

User-Agent: Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/83.0.4103.116 Safari/537.36

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.9

Accept-Encoding: gzip, deflate

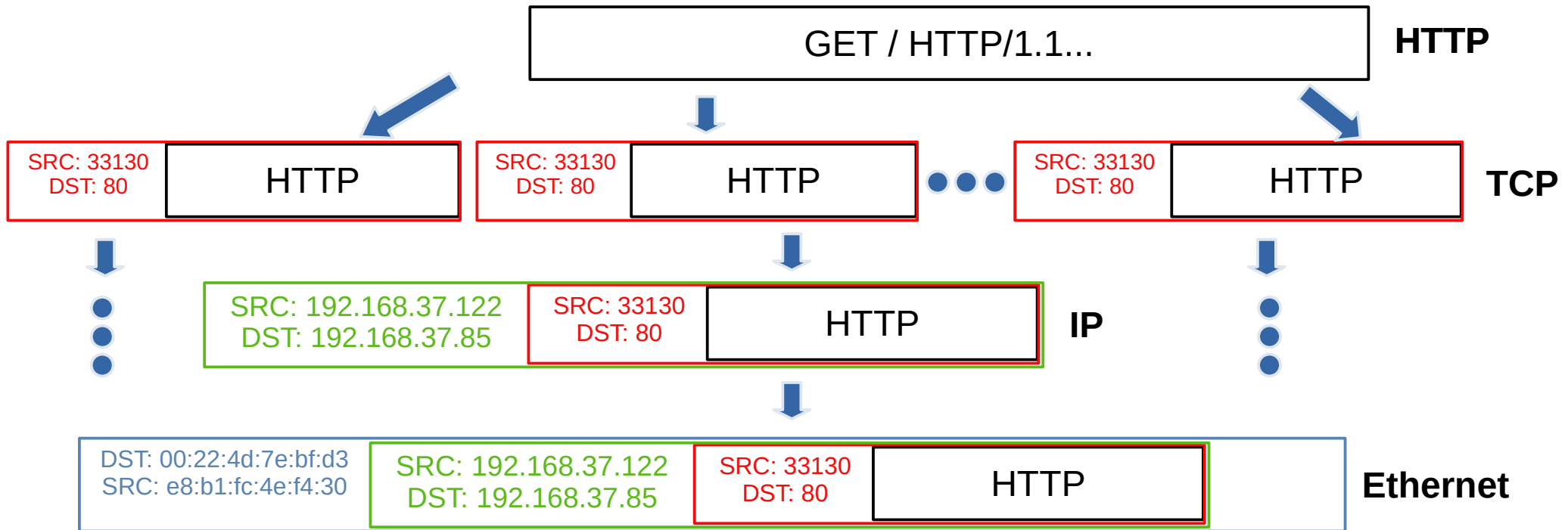
Accept-Language: en-US,en;q=0.9

HTTP

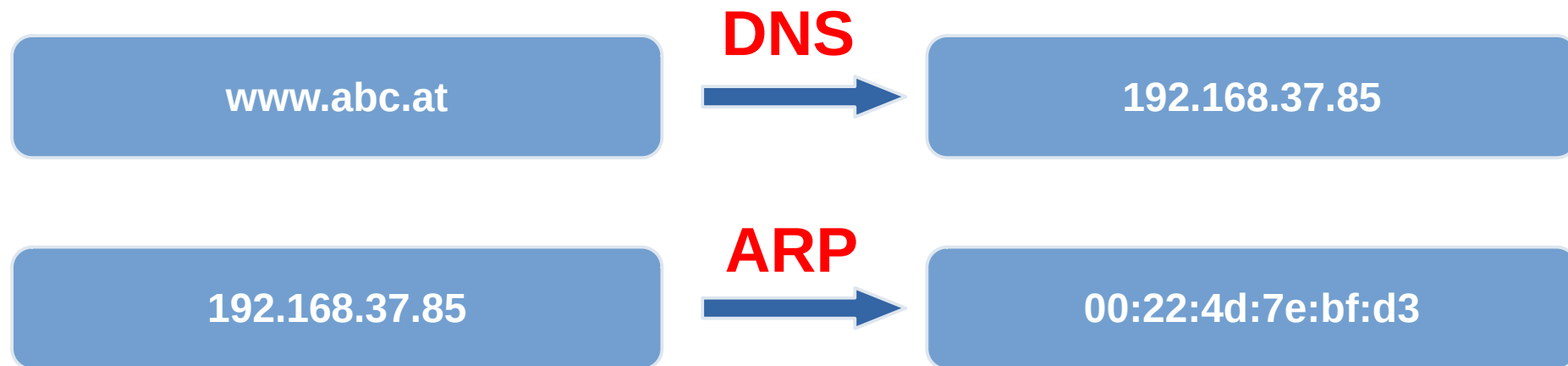


HTTP

Webseitenaufruf



Adressauflösung

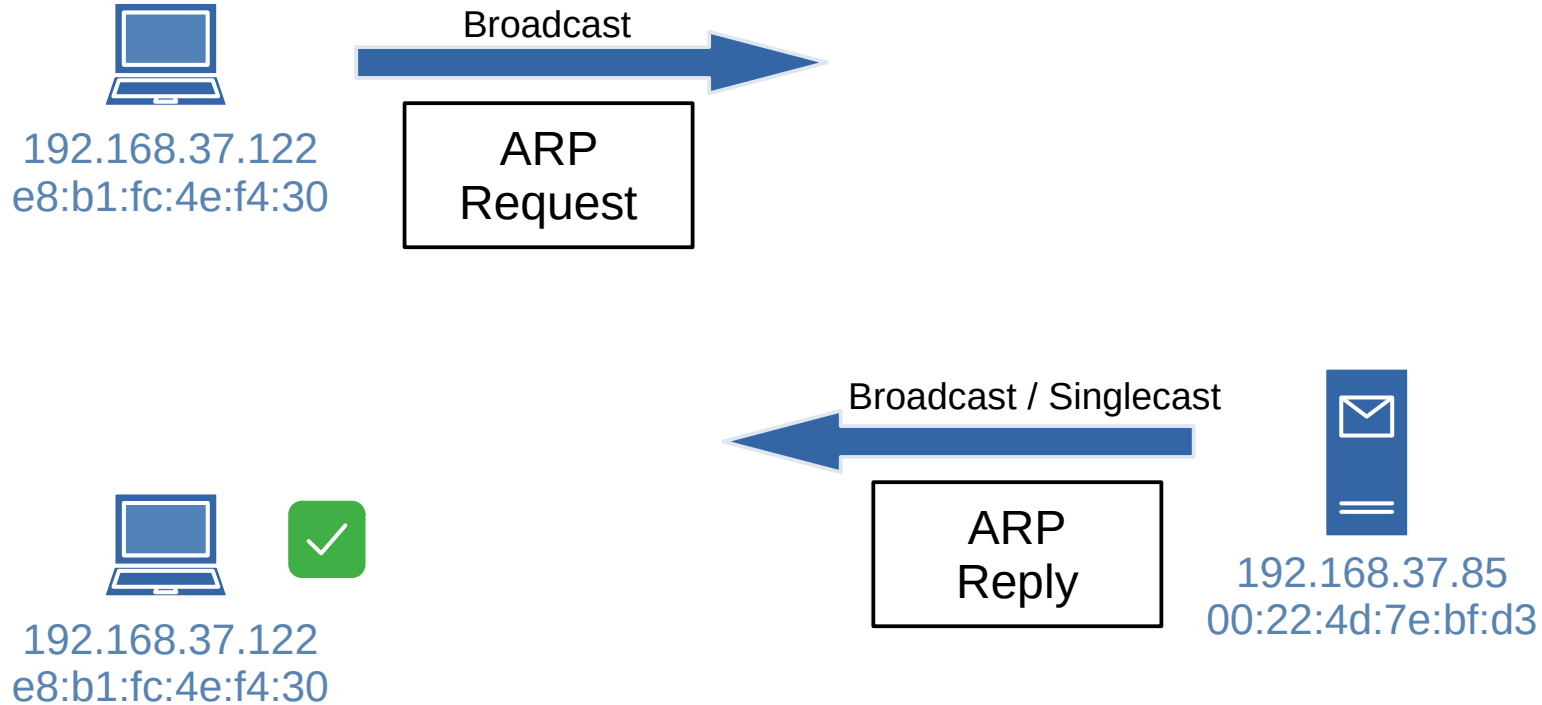


ARP



Address **R**esolution **P**rotocol

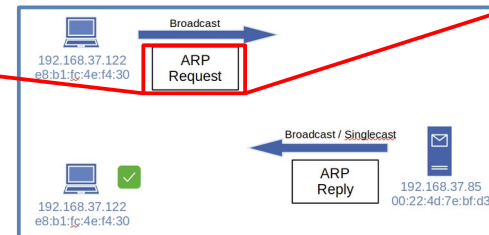
ARP



Address Resolution Protocol

Hardware type: Ethernet (1)
Protocol type: IPv4 (0x0800)
Hardware size: 6
Protocol size: 4
Opcode: request (1)
Sender MAC address: e8:b1:fc:4e:f4:30
Sender IP address: 192.168.37.122
Target MAC address: 00:00:00:00:00:00
Target IP address: 192.168.37.85

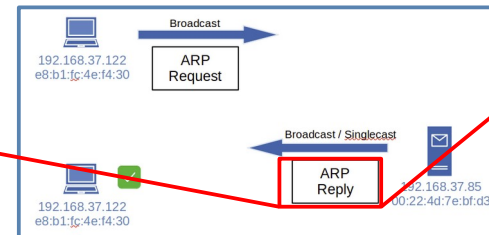
**ARP
Request**



Address Resolution Protocol

Hardware type: Ethernet (1)
Protocol type: IPv4 (0x0800)
Hardware size: 6
Protocol size: 4
Opcode: reply (2)
Sender MAC address: 00:22:4d:7e:bf:d3
Sender IP address: 192.168.37.85
Target MAC address: e8:b1:fc:4e:f4:30
Target IP address: 192.168.37.122

**ARP
Reply**



Address Resolution Protocol

ARP Request

Hardware type:	Ethernet (1)
Protocol type:	IPv4 (0x0800)
Hardware size:	6
Protocol size:	4
Opcode:	request (1)
Sender MAC address:	e8:b1:fc:4e:f4:30
Sender IP address:	192.168.37.122
Target MAC address:	00:00:00:00:00:00
Target IP address:	192.168.37.85

Broadcast

DST: ff:ff:ff:ff:ff:ff
SRC: e8:b1:fc:4e:f4:30

ARP

ARP Reply

Hardware type:	Ethernet (1)
Protocol type:	IPv4 (0x0800)
Hardware size:	6
Protocol size:	4
Opcode:	reply (2)
Sender MAC address:	00:22:4d:7e:bf:d3
Sender IP address:	192.168.37.85
Target MAC address:	e8:b1:fc:4e:f4:30
Target IP address:	192.168.37.122

Broadcast / Singlecast

DST: e8:b1:fc:4e:f4:30
SRC: 00:22:4d:7e:bf:d3

ARP

Keine Ports, kein IP-Header!

ARP Table / ARP Cache

```
mfischer@carbon:~$ sudo arp
```

Address	HWtype	HWaddress	Flags	Mask	Iface
192.168.37.119	ether	78:5d:c8:54:19:3d	C		wlp3s0
router.webfischer.at	ether	cc:2d:e0:09:fb:01	C		wlp3s0
mail.webfischer.at	ether	00:22:4d:7e:bf:d3	C		wlp3s0
nas.webfischer.at	ether	70:85:c2:47:7e:6a	C		wlp3s0
192.168.37.125	ether	70:85:c2:d5:a5:24	C		wlp3s0
brother.webfischer.at	ether	00:1b:a9:4f:2a:90	C		wlp3s0
pigarae.webfischer.at	ether	b8:27:eb:1c:18:c1	C		wlp3s0

```
mfischer@carbon:~$ sudo arp -d mail.webfischer.at
```

```
mfischer@carbon:~$ sudo arp
```

Address	HWtype	HWaddress	Flags	Mask	Iface
192.168.37.119	ether	78:5d:c8:54:19:3d	C		wlp3s0
router.webfischer.at	ether	cc:2d:e0:09:fb:01	C		wlp3s0
nas.webfischer.at	ether	70:85:c2:47:7e:6a	C		wlp3s0
192.168.37.125	ether	70:85:c2:d5:a5:24	C		wlp3s0
brother.webfischer.at	ether	00:1b:a9:4f:2a:90	C		wlp3s0
pigarae.webfischer.at	ether	b8:27:eb:1c:18:c1	C		wlp3s0

Packet Capture

The image shows a Wireshark packet capture window titled '*wlp3s0'. The interface includes a menu bar (File, Edit, View, Go, Capture, Analyze, Statistics, Telephony, Wireless, Tools, Help) and a toolbar with various icons for packet capture and analysis. A filter bar at the top shows 'arp' with a green highlight. Below this is a packet list table with columns: No., Time, Source, Destination, Protocol, Length, and Info.

No.	Time	Source	Destination	Protocol	Length	Info
16	1.513677832	e8:b1:fc:4e:f4:30	ff:ff:ff:ff:ff:ff	ARP	42	Who has 192.168.37.85? Tell 192.168.37.122
17	1.514277782	00:22:4d:7e:bf:d3	e8:b1:fc:4e:f4:30	ARP	60	192.168.37.85 is at 00:22:4d:7e:bf:d3

Below the packet list, the details pane for the selected packet (Frame 16) is expanded, showing the following information:

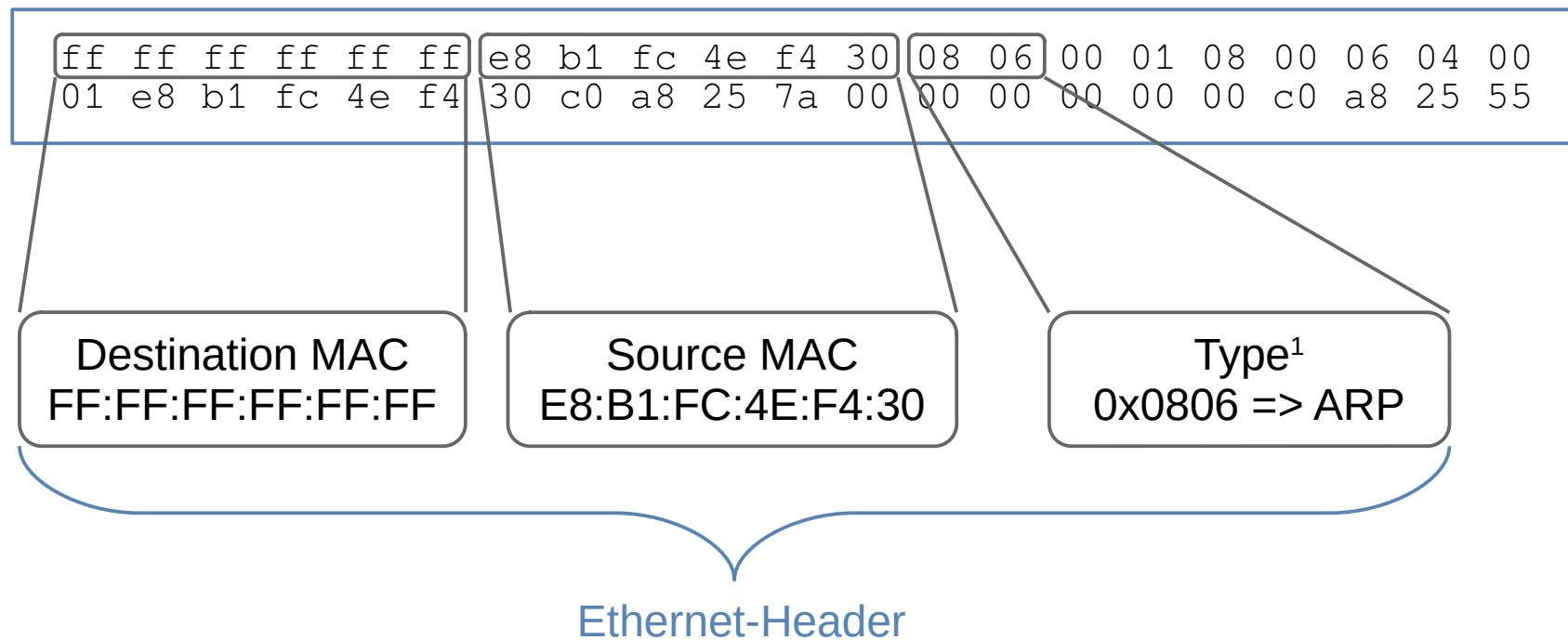
- Frame 16: 42 bytes on wire (336 bits), 42 bytes captured (336 bits) on interface wlp3s0, id 0
- Ethernet II, Src: IntelCor_4e:f4:30 (e8:b1:fc:4e:f4:30), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
 - Destination: ff:ff:ff:ff:ff:ff
 - Source: e8:b1:fc:4e:f4:30
 - Type: ARP (0x0806)
- Address Resolution Protocol (request)
 - Hardware type: Ethernet (1)
 - Protocol type: IPv4 (0x0800)
 - Hardware size: 6
 - Protocol size: 4
 - Opcode: request (1)
 - Sender MAC address: e8:b1:fc:4e:f4:30
 - Sender IP address: 192.168.37.122
 - Target MAC address: 00:00:00:00:00:00
 - Target IP address: 192.168.37.85

At the bottom, the packet bytes pane shows the raw data in hexadecimal and ASCII:

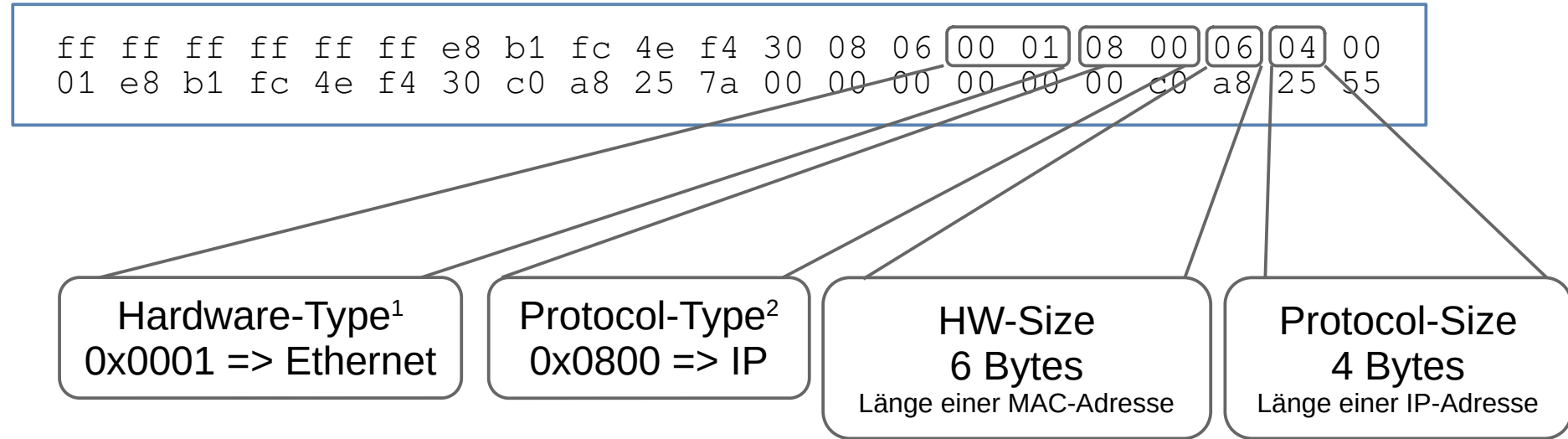
```
0000  ff ff ff ff ff e8 b1 fc 4e f4 30 08 06 00 01  ....N.0....
0010  08 00 06 04 00 01 e8 b1 fc 4e f4 30 c0 a8 25 7a  ....N.0.-%z
```

The status bar at the bottom indicates: wireshark_wlp3s0_20201118102507_dtx1MR.pcapng | Packets: 30 · Displayed: 2 (6.7%) · Dropped: 0 (0.0%) · Profile: Default

Bytecode



Bytecode



¹ <https://www.iana.org/assignments/arp-parameters/arp-parameters.xhtml#arp-parameters-2>

² <https://www.iana.org/assignments/ieee-802-numbers/ieee-802-numbers.xhtml#ieee-802-numbers-1>

Bytecode

