# etherlab

### 221501029潘泓旭

## 221501029@smail.nju.edu.cn

- 1. b4:8c:9d:50:59:c3
- 2. 10:51:72:1b:24:9f,不是,它是路由器的地址

```
No. Time Source Destination Protocol Length Info
1966 2023-12-09 01:34:28.049498 172.24.38.17 114.212.10.193 HTTP 582 GET /course/net23/etherlab.py?
user_id-221501029 HTTP/1.1
Frame 1966: 582 bytes on wire (4656 bits), 582 bytes captured (4656 bits) on interface \Device\NPF_{8556E8DB-875B-45ED-B4D4-00832D7BC113},
id 0
Ethernet II, Src: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3), Dst: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f)
```

3. 0x800;IP协议

4. 55

5.10:51:72:1b:24:9f,都不是,是我路由器的地址,是用来进我子网的链路 6.b4:8c:9d:50:59:c3,是 7.0x800,IP协议

```
▼ Ethernet II, Src: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f), Dst: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3)
▶ Destination: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3)
▶ Source: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f)

Type: IPv4 (0x0800)
```

## 8.有13个字节

```
9 48 54 54 50 2f 31 2e 31 20 32 30 30 20 <mark>4f 4b</mark> 0d HTTP/1.1 200 <mark>0K</mark>·
9 0a 44 61 74 65 3a 20 53 61 74 2c 20 31 36 20 44 ·Date: S at, 16 D
```

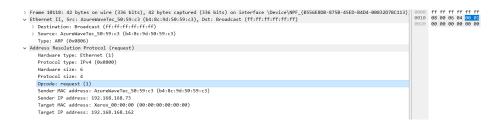
# 9.Internet地址,物理地址,类型

Internet 地址 169.254.169.254 172.24.0.1 172.24.127.255 224.0.0.2 224.0.0.251 224.0.0.252	物理地址 10-51-72-1b-24-9f 10-51-72-1b-24-9f ff-ff-ff-ff-ff-ff 01-00-5e-00-00-02 01-00-5e-00-00-fb 01-00-5e-00-00-fc	类动动静静静静 静态态态态态态

```
v Ethernet II, Src: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3), Dst: Broadcast (ff:ff:ff:ff:ff)
> Destination: Broadcast (ff:ff:ff:ff:ff)
> Source: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3)
Type: ARP (0x0806)
```

12.a)20

- b)0x0001
- c)包含
- d)设置Target Mac address为00:00:00:00:00:00, Target IP address为192.168.168.162



#### 13.a)20

- b)0x0002
- c)Sender MAC address为16:4f:9e:20:ba:ef,Target IP address为192.168.168.162
- 14.源地址为16:4f:9e:20:ba:ef,目的地址为b4:8c:9d:50:59:c3

```
Frame 18119: 42 bytes on wire (336 bits), 42 bytes captured (336 bits) on interface \Device\NPF_(85688D8-8758-45ED-84D4-0083207BC113)

Ethernet II, Src: 16:4f:9e:20:basef (16:4f:9e:20:basef), Dst: AzureMaveTec_50:59:c3 (b4:8c:9d:50:59:c3)

Address Resolution Protocol (reply)

Address Resolution Protocol (reply)

Protocol type: IPv4 (0x8800)

Hardware type: Ethernet (1)

Protocol size: 4

Opcode: reply (2)

Sender MAC address: 16:4f:9e:20:basef (16:4f:9e:20:basef)

Sender IP address: 192.168.168.162
```

15.因为 ARP 广播信息是广播的,所有该网段内的电脑均可收到,而 ARP 广播回复是单播的,只有请求的那台电脑才能收到,因此抓不到另外一台电脑的 ARP 请求。

EX1.会显示"ARP 项添加失败: 拒绝访问。"

C:\Windows\System32>arp -s 192.168.168.162 01-00-5e-00-00-02 ARP 项添加失败: 拒绝访问。

EX2. 根据微软官方文档http://support.microsoft.com/kb/949589,并没有ARP缓存保留默认时间