**Aufgabe 2 (a)**

**DNS Resolve**

1. Data link (Source MAC = aa:aa:aa:aa:aa:aa, Destination = 01:01:01:01:01:01) /

IP (Source IP = 10.0.0.2 Destination IP = 10.0.0.1)

UDP (Port 53)

DNS (IP-Get-request = <http://www.example.com>)

1. IP (Source IP = 19.19.19.19 Destination IP = 4.0.0.1)/

UDP (Port 53)/

DNS (IP-Get-request = <http://www.example.com>)

1. IP (Source IP = 4.0.0.1 Destination IP = 19.19.19.19)/

UDP (Port 53)/

DNS (IP-Get-response = “4.0.0.2” resolved = “false”)

1. IP (Source IP = 19.19.19.19 Destination IP = 4.0.0.2)/

UDP (Port 53)/

DNS (IP-Get-request = <http://www.example.com>)

1. IP (Source IP = 4.0.0.2 Destination IP = 19.19.19.19)/

UDP (Port 53)/

DNS (IP-Get-response = “4.0.0.3” resolved = “false”)

1. IP (Source IP = 19.19.19.19 Destination IP = 4.0.0.3)/

UDP (Port 53)/

DNS (IP-Get-request = <http://www.example.com>)

1. IP (Source IP = 4.0.0.3 Destination IP = 19.19.19.19)/

UDP (Port 53)/

DNS (IP-Get-response = “1.2.3.4” resolved = “true”)

1. Data link (Source MAC = 01:01:01:01:01:01, Destination = aa:aa:aa:aa:aa:aa) /

IP (Source IP = 10.0.0.1 Destination IP = 10.0.0.2)/

UDP (Port 53)/

DNS (IP-Get-response = “1.2.3.4” resolved = “true”)

**TCP Connection**

1. Data link (Source MAC = aa:aa:aa:aa:aa:aa, Destination = 01:01:01:01:01:01) /

IP (Source IP = 10.0.0.2 Destination IP = 1.2.3.4)/

TCP (Port 80)

HTTP (GET request “\”)

1. IP (Source IP = 19.19.19.19 Destination IP = 1.2.3.4)/

TCP (Port 80)

HTTP (GET request “\”)

…

**Aufgabe 2 (b)**

**DNS Resolve**

1. Data link (Source MAC = 66:66:66:66:66:66, Destination = aa:aa:aa:aa:aa:aa, ARP= “MAC für 10.0.0.1 ist 66:66:66:66:66:66”) /

IP (Source IP = 10.0.0.6 Destination IP = 10.0.0.2)

1. Data link (Source MAC = 66:66:66:66:66:66, Destination = 01:01:01:01:01:01, ARP= “MAC für 10.0.0.2 ist 66:66:66:66:66:66”) /

IP (Source IP = 10.0.0.6 Destination IP = 10.0.0.1)

1. Data link (Source MAC = aa:aa:aa:aa:aa:aa, Destination = 66:66:66:66:66:66) /

IP (Source IP = 10.0.0.2 Destination IP = 10.0.0.1)

UDP (Port 53)

DNS (IP-Get-request = <http://www.example.com>)

*..dann analog zu 1) oder direkte Antwort-Seite an Alice*

**TCP Connection**

1. Data link (Source MAC = aa:aa:aa:aa:aa:aa, Destination = 66:66:66:66:66:66) /

IP (Source IP = 10.0.0.2 Destination IP = 1.2.3.4)/

TCP (Port 80)

HTTP (GET request “\”)

1. Data link (Source MAC = 66:66:66:66:66:66, Destination = 01:01:01:01:01:01) /

IP (Source IP = 10.0.0.6 Destination IP = 1.2.3.4)/

TCP (Port 80)

HTTP (GET request “\”)

1. IP (Source IP = 19.19.19.19 Destination IP = 1.2.3.4)/

TCP (Port 80)

HTTP (GET request “\”)

…