

28.170.4.189

254.149.212.23

148.193.107.192

137.134.180.64

59.36.72.70

131.55.194.49

212.95.185.249

1.135.123.60

156.253.229.17

14.1.11.134

191.7.222.2

245.221.22.22

IP-adressen en DNS

Jendo en Safae

Wat is een IP-adres?

Wat is een IP-adres?

Internet Protocol

Wat is een IP-adres?

Internet Protocol

IPv4

IPv6

Wat is een IP-adres?

Internet Protocol

IPv4

IPv1, IPv2, IPv3, IPv5?

IPv6

Wat is een IP-adres?

Internet Protocol

IPv4

IPv1, IPv2, IPv3, IPv5?

IPv6



Wat is een IP-adres?

Internet Protocol

IPv4

IPv6



Wat is een IP-adres?

Internet Protocol

IPv4

IPv6

IPv7, IPv8, IPv9



Wat is een IP-adres?

Internet Protocol

IPv4

IPv6



Wat is een IP-adres?

Internet Protocol

IPv4

IPv6

Wat is een IP-adres?

Internet Protocol

IPv4	251.43.77.170
------	---------------

IPv6	44f6:5ddb:a9b3:7e57:6elf:c1be:0000:0000
------	---

IPv4

251.43.77.170

IPv4

251.43.77.170

IPv4

251.43.77.170

251 = 11111011

43 = 00101011

77 = 01001101

170 = 10101010

IPv4 251.43.77.170 = 1111011 00101011 01001101 10101010

251 = 1111011

43 = 00101011

77 = 01001101

170 = 10101010

IPv4

251.43.77.170 = 1111011 00101011 01001101 10101010

251 = 1111011

43 = 00101011

77 = 01001101

170 = 10101010

IPv4

251.43.77.170 = 1111011 00101011 01001101 10101010

251 = 1111011

43 = 00101011

77 = 01001101

170 = 10101010

2^{32}

IPv4

251.43.77.170 = 1111011 00101011 01001101 10101010

251 = 1111011

43 = 00101011

77 = 01001101

170 = 10101010

$2^{32} \rightarrow 4294967296$

IPv4

251.43.77.170 = 1111011 00101011 01001101 10101010

251 = 1111011

43 = 00101011

77 = 01001101

170 = 10101010

$2^{32} \rightarrow 4294967296$

6.6% gereserveerde
adressen

IPv4

251.43.77.170 = 1111011 00101011 01001101 10101010

251 = 1111011

43 = 00101011

77 = 01001101

170 = 10101010

$2^{32} \rightarrow 4294967296$

6.6% gereserveerde
adressen

???

IPv6

44F6:5DDDB:A9B3:7E57:6E1F:C1BE:0000:0000

IPv6

44F6:5DDDB:A9B3:7E57:6E1F:C1BE:0000:0000

IPv6

44F6:5DDDB:A9B3:7E57:6E1F:C1BE:0000:0000

IPv6

44F6:5DDDB:A9B3:7E57:6E1F:C1BE:0000:0000

44F6

IPv6

44F6:5DDDB:A9B3:7E57:6E1F:C1BE:0000:0000

44F6



$$6*16^0 + 15*16^1 + 4*16^2 + 4*16^3$$

IPv6

44F6:5DDDB:A9B3:7E57:6E1F:C1BE:0000:0000

44F6



$$6 \cdot 16^0 + 15 \cdot 16^1 + 4 \cdot 16^2 + 4 \cdot 16^3$$



17654

IPv6

44F6:5DDB:A9B3:7E57:6E1F:C1BE:0000:0000

44F6



$$6*16^0 + 15*16^1 + 4*16^2 + 4*16^3$$



17654



010001001110110

IPv6

44F6:5DDDB:A9B3:7E57:6E1F:C1BE:0000:0000

44F6



$6 \times 16^3 + 4 \times 16^2 + 15 \times 16^1 + 6 \times 16^0$

17654



010001001110110

IPv6

44F6:5DDDB:A9B3:7E57:6E1F:C1BE:0000:0000

44F6

JUST USE A
CONVERTER

010001001110110

IPv6

44F6:5DDDB:A9B3:7E57:6E1F:C1BE:0000:0000

IPv6

44F6:5DDB:A9B3:7E57:6E1F:C1BE:0000:0000

44F6 = 010001001110110

5DDB = 0101110111011011

A9B3 = 1010100110110011

7E57 = 0111111001010111

6E1F = 0110111000011111

C1BE = 1100000110111110

0000 = 0000000000000000

0000 = 0000000000000000

IPv6

44F6:5DDDB:A9B3:7E57:6E1F:C1BE:0000:0000

2^{128}

44F6 = 010001001110110

5DDDB = 0101110111011011

A9B3 = 1010100110110011

7E57 = 0111111001010111

6E1F = 0110111000011111

C1BE = 1100000110111110

0000 = 00000000000000000000

0000 = 00000000000000000000

IPv6

44F6:5DDB:A9B3:7E57:6E1F:C1BE:0000:0000

44F6 = 010001001110110

5DDB = 0101110111011011

A9B3 = 1010100110110011

7E57 = 0111111001010111

6E1F = 0110111000011111

C1BE = 1100000110111110

0000 = 0000000000000000

0000 = 0000000000000000

2^{128}



3402823669209384634

63374607431768211456

IPv6

44F6:5DDDB:A9B3:7E57:6E1F:C1BE:0000:0000

44F6 = 010001001110110

5DDDB = 0101110111011011

A9B3 = 1010100110110011

7E57 = 0111111001010111

6E1F = 011011100001111

C1BE = 1100000110111110

0000 = 0000000000000000

0000 = 0000000000000000

2^{128}



3402823669209384634

63374607431768211456

ULA

IPv6

44F6:5DDDB:A9B3:7E57:6E1F:C1BE:0000:0000

44F6 = 010001001110110
5DDDB = 0101110111011011
A9B3 = 1010100110110011
7E57 = 011111001010111
6E1F = 011011100001111
C1BE = 110000011011110
0000 = 0000000000000000
0000 = 0000000000000000

2^{128}



3402823669209384634
63374607431768211456

ULA

Unique Local Address

IPv6

44F6:5DDDB:A9B3:7E57:6E1F:C1BE:0000:0000

44F6 = 010001001110110
5DDDB = 0101110111011011
A9B3 = 1010100110110011
7E57 = 0111111001010111
6E1F = 0110111000011111
C1BE = 1100000110111110
0000 = 0000000000000000
0000 = 0000000000000000

2^{128}



3402823669209384634
63374607431768211456

ULA

Unique Local Address

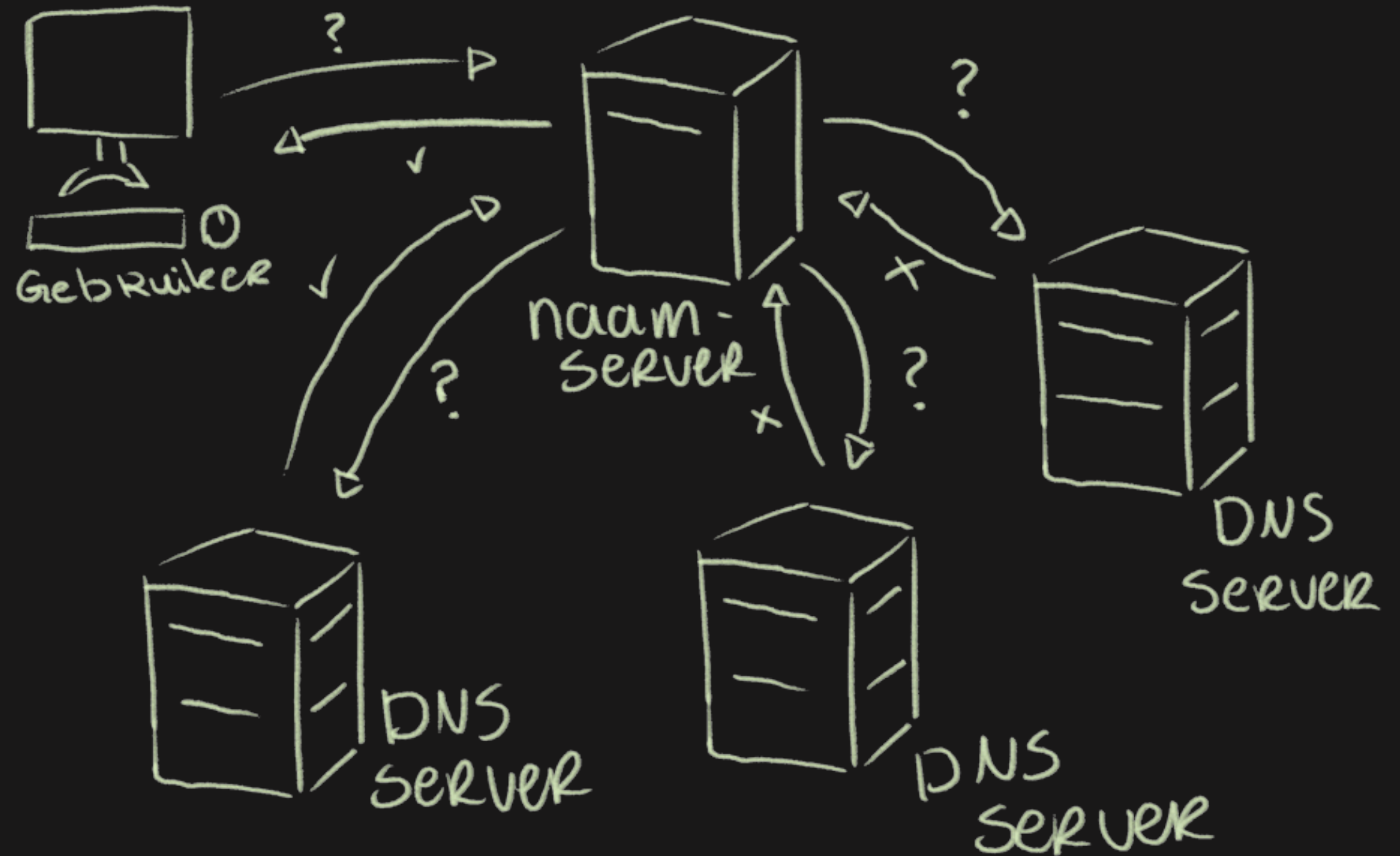
???

Wat is DNS

🌐 Domain Name System

🌐 Telefoonboek

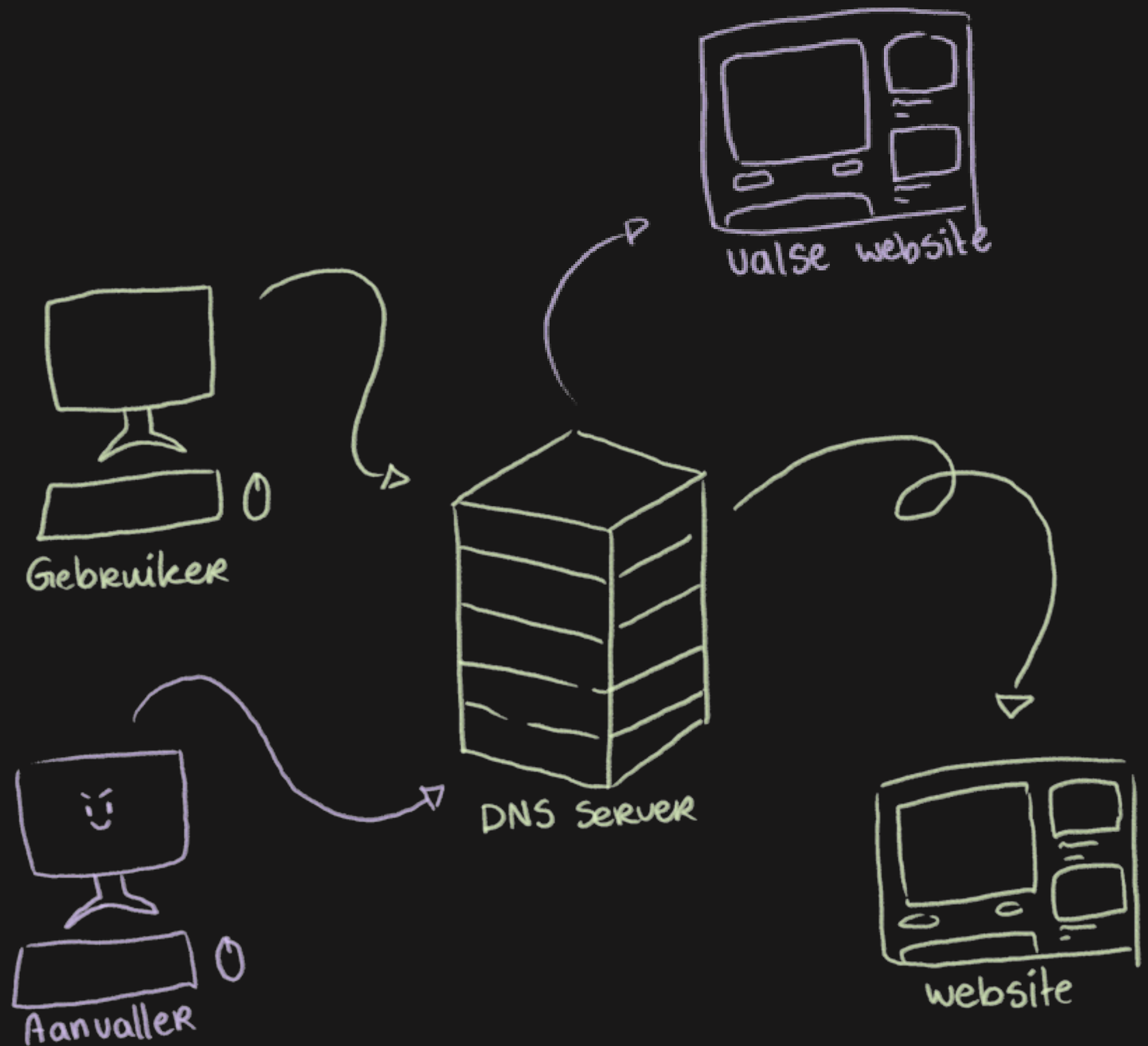
🌐 1983



DNS spoofing

🌐 Voordoen als iemand anders om mensen te misleiden

🌐 HTTPS



VPN

 Virtual Private Network

 Internet verkeer

 IP-adres

