Corso Cybersecurity Specialist Epicode – Es. 2 LUIGI BENVENUTI

Scrivi per i seguenti IP: IP Network, IP Gateway convenzionale, IP Broadcast, quali e quanti bit per l'host e quanti e quali bit per la network.

N.B. Calcolo degli host disponibili -> 2 ^ N bit host - IP Rete – IP Broadcast.

1. 1.1.1.1/8
2. 128.1.6.5/12
3. 200.1.2.3/24
4. 192.192.1.1/22
5. 126.5.4.3/9
6. 200.1.9.8/24
7. 172.16.0.4/16

1) IP Net: 1.0.0.0
   Bin Net: 11111111.00000000.00000000.00000000
   Bin Host: 00000000.00000000.00000000.11111111
   IP Gateway: 1.0.0.1
   IP Broadcast: 1.255.255.255
   Host Disponibili: 2^24 – 2= 16777214
   Host IP Range: 1.0.0.1 to 1.255.255.254
   # Reti: 2^8-2=254

2) IP Net: 128.0.0.0
   Bin Net: 11111111.11110000.00000000.00000000
   Bin Host: 00000000.00001111.11111111.11111111
   IP Gateway: 128.0.0.1
   IP Broadcast: 128.15.255.255
   Host Disponibili: 2^20 – 2= 1048574
   Host IP Range: 128.0.0.1 to 128.15.255.254
   # Reti: 2^12-2=4094

3) IP Net: 200.1.2.0
   Bin Net: 11111111.11111111. 11111111.00000000
   Bin Host: 00000000. 00000000. 00000000.11111111
   IP Gateway: 200.1.2.1
   IP Broadcast: 200.1.2.255
   Host Disponibili: 2^8 – 2= 254
   Host IP Range: 200.1.2.1 to 200.1.2.254
   # Reti: 2^24-2=16777214

4) IP Net: 192.192.0.0
   Bin Net: 11111111.11111111. 11111100.00000000
   Bin Host: 00000000. 00000000. 00000011.11111111
   IP Gateway: 192.192.0.1
   IP Broadcast: 192.192.3.255
   Host Disponibili: $2^{10} - 2 = 1022$
   Host IP Range: 192.192.0.1 to 192.192.3.254
   # Reti: $2^{22}-2=4.194.302$

5) IP Net: 126.0.0.0
   Bin Net: 11111111. 10000000. 00000000.00000000
   Bin Host: 00000000. 01111111. 11111111.11111111
   IP Gateway: 126.0.0.1
   IP Broadcast: 126.127.255.255
   Host Disponibili: $2^{23} - 2 = 8388606$
   Host IP Range: 126.0.0.1 to 126.127.255.254
   # Reti: $2^{9}-2=510$

6) IP Net: 200.1.9.0
   Bin Net: 11111111.11111111. 11111111.00000000
   Bin Host: 00000000. 00000000. 00000000.11111111
   IP Gateway: 200.1.9.1
   IP Broadcast: 200.1.9.255
   Host Disponibili: $2^{8} - 2 = 254$
   Host IP Range: 200.1.9.1 to 200.1.9.254
   # Reti: $2^{24}-2=16777214$

7) IP Net: 172.16.0.0
   Bin Net: 11111111.11111111. 00000000.00000000
   Bin Host: 00000000. 00000000. 11111111.11111111
   IP Gateway: 172.16.0.1
   IP Broadcast: 172.16.255.255
   Host Disponibili: $2^{16} - 2 = 65534$
   Host IP Range: 172.16.0.1 to 172.16.9.254
   # Reti: $2^{16}-2= 65534$

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23/01/2024,
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