

Découpage du réseau 200.172.1.0 en 4 sous réseau

sr1 = 115 machines

sr2 = 60 machines

sr3 = 28 machines

sr4 = 28 machines

Exo

200.172.1.0

Classe C

reste 1 bits

SR1 → 115 machines ⇒ 7 bits

SR2 → 60 machines ⇒ 6 bits

SR3 → 28 machines ⇒ 5 bits

SR4 → 28 machines ⇒ 5 bits

Pour chaque SR il faut un masque variable

SR1

@SR host

$$\left\{ \begin{array}{l} 200.172.1.0 = \\ 255.255.255.128 = \end{array} \right.$$

$$\begin{array}{r} 0000 \ 0000 \\ 1000 \ 0000 \\ \hline \text{1 bit} \rightarrow 7 \text{ bits} \end{array}$$

$$\left\{ \begin{array}{l} @M1 = 200.172.1.(\overbrace{0000 \ 0001}^1)_2 \\ @M_{115} = 200.172.1.115 \leftarrow \begin{array}{l} +114 \\ 126 \end{array} \\ @M_{126} = 200.172.1.(\overbrace{0111 \ 1110}^{127})_2 \end{array} \right\} \text{Nbr machines} = 2^7 - 2 = 126$$

$$@diff = 200.172.1.(\overbrace{0111 \ 1111}^{127})_2$$

$$@Reserv = 200.172.1.0/25$$

SR2

$$\left\{ \begin{array}{l} 200.172.1.(\overbrace{1000 \ 0000}^{128})_2 \rightarrow 200.172.1.128 \\ 255.255.255.(\overbrace{11 \ 00 \ 0000}^{129})_2 \rightarrow 255.255.255.192 \end{array} \right.$$

$$\left\{ \begin{array}{l} @M1 = 200.172.1.(\overbrace{1000 \ 0001}^{129})_2 \\ @M_{60} = 200.172.1.188 \leftarrow \begin{array}{l} +59 \\ 190 \end{array} \\ @M_{190} = 200.172.1.(\overbrace{1011 \ 1110}^{191})_2 \\ @M_{194} = 200.172.1.(\overbrace{1011 \ 1111}^{194})_2 \end{array} \right.$$

$$@Reserv = 200.172.1.128/26$$

SR3

$$\left\{ \begin{array}{l} 200.172.1. (1100\ 0000)_2 \rightarrow 200.172.1.192 \\ 255.255.255. (1110\ 0000)_2 \rightarrow 255.255.255.224 \end{array} \right.$$

$$\begin{aligned} @M_1 &= 200.172.1. (1100\ 0001)_2 \\ @M_{28} &= 200.172.1.220 \\ @M_{1256} &= 200.172.1. (1101\ 1110)_2 \end{aligned}$$

$$@diff = 200.172.1. (1101\ 1111)_2$$

$$@k_{20}_3 = 200.172.1.192/27$$

SR4

$$\left\{ \begin{array}{l} 200.172.1. (1110\ 0000)_2 \rightarrow 200.172.1.224 \\ 255.255.255. (1110\ 0000)_2 \rightarrow 255.255.255.224 \end{array} \right.$$

$$\begin{aligned} @M_1 &= 200.172.1. (1110\ 0001)_2 \\ @M_{28} &= 200.172.1.252 \\ @M_{1256} &= 200.172.1. (1111\ 1110)_2 \end{aligned}$$

$$@diff = 200.172.1. (1111\ 1111)_2$$

$$@k_{20}_4 = 200.172.1.224/27$$

(2)

Découpage Réseau 200.172.1.0/24

