Network 158.61.0.0/16

VLANXXX – French – 600 hosts

2^10 = 1024-2 = 1022 useable hosts

32-10 = /22

Subnet mask: 255.255.252.0

IP address: 158.61.0.0

Broadcast address: 158.61.3.255

VLANYYY – English – 100 hosts

2^7 = 128-2 = 126 useable hosts

32-7 = /25

3rd octate: 24-22 = 2

2^2 = 4

IP address: 158.61.4.0

Subnet Mask: 255.255.255.128

Broadcast address: 158.61.4.127

VLANZZZ – Hindi – 50 hosts

2^6 = 64-2 = 62 useable hosts

32-6 = /26

4th octate: 32-25 = 7

2^7 = 128

IP address: 158.61.4.128

Subnet Mask: 255.255.255.192

Broadcast address: 158.61.4.191

Database Server LAN – 40 hosts

2^6 = 64-2 = 62 useable hosts

32-6 = /26

4th octate: 32-26 = 6

2^6 = 64 + 128 = 192

Subnet Mask: 255.255.255.192

IP address: 158.61.4.192

Broadcast address: 158.61.4.255

VLAN1 – Management – 18 hosts

2^5 = 32-2 = 30 useable hosts

32-5 = /27

4th octate: 32-26 = 6

2^6 = 64+192 = 256

Subnet Mask: 255.255.255.224

IP address: 158.61.5.0

Broadcast address: 158.61.5.31

Serial Link – 2 hosts

2^2 = 4-2 = 2 useable hosts

32-30 = /30

4th octate: 32-27 = 5

2^5 = 32

Subnet Mask: 255.255.255.252

IP address: 158.61.5.32