## SUBNETTING

Network address 182.97.0.0/20

Name-Hosts-Give-HostBits-NetworkAddress-Port and IP- End devices with IP

Nuclear Plant    500    512    9       182.97.0.0/23

f0/0 182.97.0.1/23

Server0 182.97.0.2

CountDown         420    512    9       182.97.2.0/23

f0/0 182.97.2.1/23

PC3 182.97.2.3

Sakura            248    256    8       182.97.4.0/24

f0/1 182.97.4.1/24

PC6 182.97.4.2 PC7 182.97.4.5

Seaside+Nuketown 225    256    8       182.97.5.0/24

f0/1 182.97.5.1/24

Laptop0 182.97.5.2

Farm              120    128    7       182.97.6.0/25

f0/0 182.97.6.1/25

Laptop3 182.97.6.12 PC8 182.97.6.125

Shipment           52     64    6       182.97.6.128/26

f0/1 182.97.6.129/26

Laptop6 182.97.6.132 Laptop1 182.97.6.150

Launch             11     16    4       182.97.6.192/28

f0/1 182.97.6.193/28

PC9 182.97.6.194 Laptop4 182.97.6.196

WAN1 2 4 2  182.97.6.208/30

(BS se0/2/0 182.97.6.210/30-KH se0/3/0 182.97.6.209/30)

WAN2 2 4 2  182.97.6.212/30

(PL se0/0/0 182.97.6.214/30-ES se0/2/0 182.97.6.213/30)

WAN3 2 4 2  182.97.6.216/30

(PL se0/1/0 182.97.6.218/30-FR se0/3/1 182.97.6.217/30)

WAN4 2 4 2  182.97.6.220/30

(ES se0/2/1 182.97.6.222/30-FR se0/3/0 182.97.6.221/30)

WAN5 2 4 2  182.97.6.224/30

(BS se0/2/1 182.97.6.226/30-FR se0/0/1 182.97.6.225/30)

WAN6 2 4 2  182.97.6.228/30

(KH se0/2/0 182.97.6.230/30-FR se0/0/0 182.97.6.229/30)

Available hosts-4096

Used hosts-1768


## ROUTER CONFIGURATIONS

Router>en

Router#conf t

Router(config)#hostname KillHouse

KillHouse(config)#interface FastEthernet0/0

KillHouse(config-if)#ip address 182.97.2.1 255.255.254.0

KillHouse(config)#interface FastEthernet0/1

KillHouse(config-if)#ip address 182.97.4.1 255.255.255.0

KillHouse(config-if)#no shut

KillHouse(config)#Interface  Serial0/2/0

KillHouse(config-if)#ip address 182.97.6.230 255.255.255.252

KillHouse(config-if)#no shut

KillHouse(config)#Interface Serial0/3/0

KillHouse(config-if)#ip address 182.97.6.209 255.255.255.252

KillHouse(config-if)#no shut

KillHouse(config-if)#exit


Router(config)#hostname BusStation

BusStation(config)#interface Serial0/2/1

BusStation(config-if)#ip address 182.97.6.226 255.255.255.252

BusStation(config-if)#no shut

```
BusStation(config-if)#exit

BusStation(config)#Interface Serial0/2/0

BusStation(config-if)#ip address 182.97.6.210 255.255.255.252

BusStation(config-if)#no shut

BusStation(config-if)#exit

BusStation(config)#interface FastEthernet0/1

BusStation(config-if)#ip address 182.97.6.193 255.255.255.240

BusStation(config-if)#no shut

BusStation(config-if)#exit


Router>en

Router#conf t

Router(config)#hostname Backup

Backup(config)#Interface se0/0/1

Backup(config-if)#ip address 182.97.6.225 255.255.255.252

Backup(config-if)#no shut

Backup(config-if)#exit

Backup(config)#Interface se0/0/0

Backup(config-if)#ip address 182.97.6.229 255.255.255.252

Backup(config-if)#no shut

Backup(config-if)#exit

Backup(config)#Interface Serial0/3/0

Backup(config-if)#ip address 182.97.6.221 255.255.255.252

Backup(config-if)#no shut

Backup(config-if)#exit

Backup(config)#Interface Serial0/3/1

Backup(config-if)#ip address 182.97.6.217 255.255.255.252

Backup(config-if)#no shut

Backup(config-if)#exit

Backup#show run
```

```
Router>en
Router#conf t
Router(config)#hostname Pipeline
Pipeline(config)#Interface Serial0/0/0
Pipeline(config-if)#ip address 182.97.6.214 255.255.255.252
Pipeline(config-if)#no shut
Pipeline(config-if)#exit
Pipeline(config)#Interface Serial0/1/0
Pipeline(config-if)#ip address 182.97.6.218 255.255.255.252
Pipeline(config-if)#no shut
Pipeline(config-if)#exit
Pipeline(config)#Interface FastEthernet0/1
Pipeline(config-if)#ip address 182.97.6.129 255.255.255.192
Pipeline(config-if)#no shut
Pipeline(config-if)#exit
Pipeline(config)#Interface FastEthernet0/0
Pipeline(config-if)#ip address 182.97.6.1 255.255.255.128
Pipeline(config-if)#no shut
Pipeline(config-if)#exit
Pipeline(config)#

Router>en
Router#conf t
Router(config)#hostname Estate
Estate(config)#Interface FastEthernet0/1
Estate(config-if)#ip address 182.97.5.1 255.255.255.0
Estate(config-if)#no shut
Estate(config-if)#exit
Estate(config)#Interface Serial0/2/0
```

```
Estate(config-if)#ip address 182.97.6.213 255.255.255.252

Estate(config-if)#no shut

Estate(config-if)#exit

Estate(config)#Interface Serial0/2/1

Estate(config-if)#ip address 182.97.6.222 255.255.255.252

Estate(config-if)#no shut

Estate(config-if)#exit
```

## ROUTING

### Backup System

```
Pipeline(config)#ip route 0.0.0.0 0.0.0.0 182.97.6.217

Estate(config)#ip route 0.0.0.0 0.0.0.0 182.97.6.221

KillHouse(config)#ip route 0.0.0.0 0.0.0.0 182.97.6.229

BusStation(config)#ip route 0.0.0.0 0.0.0.0 182.97.6.225
```

### Static

```
Backup(config)#ip route 182.97.6.0 255.255.255.128 Serial0/3/1

Backup(config)#ip route 182.97.6.128 255.255.255.192 Serial0/3/1

Backup(config)#ip route 182.97.5.0 255.255.255.0 Serial0/3/0

Backup(config)#ip route 182.97.0.0 255.255.254.0 Serial0/0/1

Backup(config)#ip route 182.97.6.192 255.255.255.240 Serial0/0/1

Backup(config)#ip route 182.97.4.0 255.255.255.0 Serial0/0/0
Backup(config)#ip route 182.97.2.0 255.255.254.0 Serial0/0/0


Pipeline(config)#ip route 182.97.5.0 255.255.255.0 182.97.6.213

Pipeline(config)#ip route 182.97.5.0 255.255.255.0 182.97.6.217 5 (Floating)

Pipeline(config)#ip route 182.97.4.0 255.255.255.0 Serial0/1/0

Pipeline(config)#ip route 182.97.2.0 255.255.254.0 Serial0/1/0

Pipeline(config)#ip route 182.97.0.0 255.255.254.0 Serial0/1/0

Pipeline(config)#ip route 182.97.6.192 255.255.255.240 Serial0/1/0
```

KillHouse(config)#ip route 182.97.6.192 255.255.255.240 Serial0/3/0

KillHouse(config)#ip route 182.97.0.0 255.255.254.0 Serial0/3/0

KillHouse(config)#ip route 182.97.6.0 255.255.255.128 Serial0/2/0

KillHouse(config)#ip route 182.97.6.128 255.255.255.192 Serial0/2/0

KillHouse(config)#ip route 182.97.5.0 255.255.255.0 Serial0/2/0


BusStation(config)#ip route 182.97.4.0 255.255.255.0 Serial0/2/0

BusStation(config)#ip route 182.97.2.0 255.255.254.0 Serial0/2/0

BusStation(config)#ip route 182.97.5.0 255.255.255.0 Serial0/2/1

BusStation(config)#ip route 182.97.6.0 255.255.255.128 Serial0/2/1

BusStation(config)#ip route 182.97.6.128 255.255.255.192 Serial0/2/1


**Dynamic**

Estate(config)#router rip

Estate(config-router)#version 2

Estate(config-router)#no auto-summary

Estate(config-router)#network 182.97.6.0

Estate(config-router)#network 182.97.6.128

Estate(config-router)#network 182.97.4.0

Estate(config-router)#network 182.97.2.0

Estate(config-router)#network 182.97.0.0

Estate(config-router)#network 182.97.6.192