MUHAMMAD FAISAL AMIR

6706160014

D3IF-40-02

JURNAL MODUL 3

1. Sebutkan kepanjangan dari ISP dan jelaskan !
2. Sebutkan min. 5 manfaat dari subnetting
3. Carilah Jumlah Host berdasarkan subnet mask berikut!
4. 255.255.255.192
5. 255.255.255.252
6. 255.255.248.0
7. 255.255.192.0
8. 255.240.0.0
9. 255.224.0.0
10. Diketahui network pada Telkom university dengan IP Address 128.25.0.0/21. Tentukan sub network masing” fakultas
11. FIK = 300 host
12. FEB = 525 host
13. FKB = 10 host
14. FIT = 100 host
15. FRI = 30 host
16. FIF = 50 host
17. SMAN 1 Dayeuhkolot akan membangun sebuah jaringan internet dengan IP Address 172.16.0.0/16 dan dengan ketentuan host yang dibutuhkan sebagai berikut :
18. Kelas 12 1000 host
19. Kelas 11 450 host
20. Kelas 10 150 host
21. Ruang Server 2 host

Tentukan subnetwork masing-masing !

1. Diketahui sebuah network dengan IP Address 172.20.0.0/17. Tentukan subnetwork dari masing” host :  
   a. 850 host

b. 500 host

c. 220 host

d. 110 host

e. 800 host

Jawaban :

1. ISP adalah Internet Service Provider
2. Manfaat Subneting

* Mengoptimalkan network performance
* Mempermudah pengelolaan network.
* Mengurangi network traffic
* Memaksimalkan Performa Network
* Mengurangi Network Traffic

1. 255.255.255.192 = /26 = 62 Host
2. 255.255.255.252 = /30 = 2 Host
3. 255.255.248.0 = /29 = 6 Host
4. 255.255.192.0 = /18 = 16.384 Host
5. 255.240.0.0 = /12 = 1.048.574 Host
6. 255.224.0.0 = /11 = 2.097.150 Host
7. 128.25.0.0/21
8. FEB = 525 host

IP range

255.255.255.255

255.255.252.0

-----------------------------------

0 0 3.255

Network : 128.25.0.0

First Host : 128.25.1.0

Last Host : 128.25.3.254

Broadcast : 128.25.3.255

Subnet Mask : 255.255.252.0

1. FIK = 300 host

IP range

255.255.255.255

255.255.254.0

-----------------------------------

0 0 1.255

Network : 128.25.4.0

First Host : 128.25.4.1

Last Host : 128.25.5.254

Broadcast : 128.25.5.255

Subnet Mask : 255.255.254.0

1. FIT = 100 host

IP range

255.255.255.255

255.255.255.128

-----------------------------------

0 0 0.127

Network : 128.25.6.0

First Host : 128.25.6.1

Last Host : 128.25.6.126

Broadcast : 128.25.6.127

Subnet Mask : 255.255.255.128

1. FIF = 50 host

IP range

255.255.255.255

255.255.255.192

-----------------------------------

0 0 0.63

Network : 128.25.6.128

First Host : 128.25.6.129

Last Host : 128.25.6.190

Broadcast : 128.25.6.191

Subnet Mask : 255.255.255.192

1. FRI = 30 host

IP range

255.255.255.255

255.255.255.224

-----------------------------------

0 0 0.21

Network : 128.25.6.192

First Host : 128.25.6.191

Last Host : 128.25.6.211

Broadcast : 128.25.6.212

Subnet Mask : 255.255.255.224

1. FKB = 10 host

IP range

255.255.255.255

255.255.255.240

-----------------------------------

0 0 0.15

Network : 128.25.6.213

First Host : 128.25.6.214

Last Host : 128.25.6.217

Broadcast : 128.25.6.218

Subnet Mask : 255.255.255.240

1. 172.16.0.0/16
2. Kelas 12 1000 host

IP range

255.255.255.255

255.255.252.0

-----------------------------------

0 0 3.255

Network : 172.16.0.0

First Host : 172.16.0.1

Last Host : 172.16.3.254

Broadcast : 172.16.3.255

Subnet Mask : 255.255.252.0

1. Kelas 11 450 host

IP range

255.255.255.255

255.255.254.0

-----------------------------------

0 0 1.255

Network : 172.16.4.0

First Host : 172.16.4.1

Last Host : 172.16.5.254

Broadcast : 172.16.5.255

Subnet Mask : 255.255.254.0

1. Kelas 10 150 host

IP range

255.255.255.255

255.255.255.0

-----------------------------------

0 0 0.255

Network : 172.16.6.0

First Host : 172.16.6.1

Last Host : 172.16.6.254

Broadcast : 172.16.6.255

Subnet Mask : 255.255.255.0

1. Ruang Server 2 host

IP range

255.255.255.255

255.255.255.252

-----------------------------------

0 0 0.3

Network : 172.16.7.0

First Host : 172.16.7.1

Last Host : 172.16.7.2

Broadcast : 172.16.7.3

Subnet Mask : 255.255.255.252

1. 172.20.0.0/17

a. 850 host

IP range

255.255.255.255

255.255.252.0

-----------------------------------

0 0 3.255

Network : 172.20.0.0

First Host : 172.20.0.1

Last Host : 172.20.3.254

Broadcast : 172.20.3.255

Subnet Mask : 255.255.252.0

b. 800 host

IP range

255.255.255.255

255.255.252.0

-----------------------------------

0 0 3.255

Network : 172.20.4.0

First Host : 172.20.4.1

Last Host : 172.20.7.254

Broadcast : 172.20.7.255

Subnet Mask : 255.255.252.0

c. 500 host

IP range

255.255.255.255

255.255.254.0

-----------------------------------

0 0 1.255

Network : 172.20.8.0

First Host : 172.20.8.1

Last Host : 172.20.9.254

Broadcast : 172.20.9.255

Subnet Mask : 255.255.254.0

d. 220 host

IP range

255.255.255.255

255.255.255.0

-----------------------------------

0 0 0.255

Network : 172.20.10.0

First Host : 172.20.10.1

Last Host : 172.20.10.254

Broadcast : 172.20.10.255

Subnet Mask : 255.255.255.0

e. 110 host

IP range

255.255.255.255

255.255.255.128

-----------------------------------

0 0 0.127

Network : 172.20.11.0

First Host : 172.20.11.1

Last Host : 172.20.11.126

Broadcast : 172.20.11.127

Subnet Mask : 255.255.255.128