

Communication Networks Management Lab

Homework#2 Network IP Classical Subnetting

Variable Length Subnet Mask (VLSM)

**A network requires 14 hosts and 10 subnetworks.**

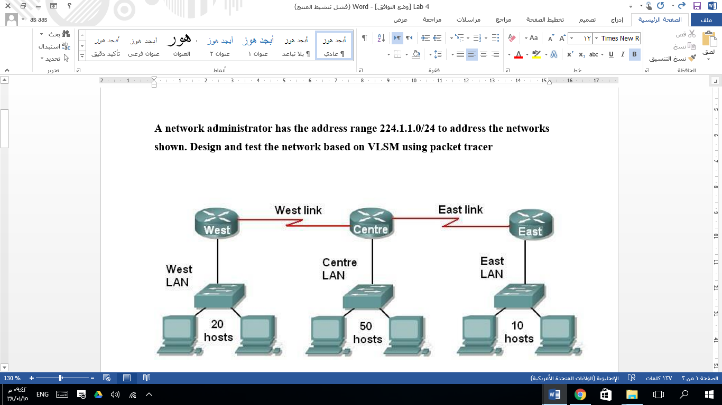
**IP = 192.168.10.0, Class C**

**Design this network and determine the address ranges**

|  |  |  |  |
| --- | --- | --- | --- |
| **Subnetwork #** | **Subnetwork ID** | **Host Range** | **Broadcast** |
| **0** | **192.168.10.0** | **1-14** | **192.168.10.15** |
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**Variable Length Subnet Mask (VLSM)**



* **Determine how many H bits will be needed to satisfy the *largest network.***
* **Pick a subnet for the largest network to use.**
* **Pick the next largest network to work with.**
* **Pick the third largest network to work with.**
* **Determine network numbers for serial links.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Subnet mask | Network address | Broadcast | Host address | |
| name |  |  | address | range | |
|  |  |  |  |  |  |
| **Centre** | **255.255.255.192** |  | **.63** | **.1 - .62** | |
| **LAN** |
|  |  |  |  |  |  |
| **West LAN** |  | **224.1.1.64/27** |  |  | |
|  |
|  |  |  |  |  |  |
| **East LAN** | **255.255.255.240** |  | **.111** |  | |
|  |
|  |  |  |  |  |  |
| **West link** |  |  | **.115** |  |  |
|  |
|  |  |  |  |  |  |
| **East link** | **255.255.255.252** |  |  |  |  |
|  |
|  |  |  |  |  |  |

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