**Turdalin Nurassyl LAB6**

**11.5.5**

1. 50 hosts
2. For now 40 hosts
3. /24 = 1^8.1^8.1^8.0^8
4. 1 – network, 0 – hosts
5. 1^8.1^8.1^8.10000000 – 255.255.255.128 -> 2^7-2 = 126 hosts per subnet. Total 2 subnets
6. 1^8.1^8.1^8.11000000 – 255.255.255.192 -> 2^6 – 2 = 62 hps. 4 subnet
7. 1^8.1^8.1^8.11100000 – 255.255.255.224 -> 2^5 – 2 = 30 hps. 8 subnet
8. 1^8.1^8.1^8.11110000 – 255.255.255.240 -> 2^4 – 2 = 14 hps. 16 subnet
9. 1^8.1^8.1^8.11111000 – 255.255.255.248 -> 2^3 – 2 = 6 hps. 32 subnet
10. 1^8.1^8.1^8.11111100 – 255.255.255.252 -> 2^2 – 2 = 2 hps. 64 subnet
11. /25 - /30 for small ranges
12. In our case /26 is the best. 62 hps

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| --- | --- | --- |
| Subnet | Prefix | Mask |
| 192.168.0.0 | /26 | 255.255.255.192 |
| 192.168.0.64 | /26 | 255.255.255.192 |
| 192.168.0.128 | /26 | 255.255.255.192 |
| 192.168.0.192 | /26 | 255.255.255.192 |

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| --- | --- | --- | --- |
| G0/0 | 192.168.0.1 | 255.255.255.192 |  |
| G0/1 | 192.168.0.65 | 255.255.255.192 |  |
| A switch | 192.168.0.2 | 255.255.255.192 | 192.168.0.1 |
| B switch | 192.168.0.66 | 255.255.255.192 | 192.168.0.65 |
| PC-A | 192.168.0.62 | 255.255.255.192 | 192.168.0.1 |
| PC-B | 192.168.0.126 | 255.255.255.192 | 192.168.0.65 |

