**Router Configuration:**

**Mordor:**

**Cardolan:**

**Eriador:**

**Arnor:**

**Shire:**

**Gondor:**

**Rohan:**

**The network address 128.10.0.0/16 has 65534 hosts.**

**Our subnet needs 7980 hosts.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Network Address** | **Slash** | **Subnet mask** |
| Mordor | 128.10.0.0 | /19 | 255.255.224.0 |
| Cardolan | 128.10.32.0 | /22 | 255.255.252.0 |
| Eriador | 128.10.36.0 | /22 | 255.255.252.0 |
| Arnor | 128.10.40.0 | /22 | 255.255.252.0 |
| Shire | 128.10.44.0 | /24 | 255.255.255.0 |
| Gondor | 128.10.45.0 | /24 | 255.255.255.0 |
| Rohan | 128.10.46.0 | /27 | 255.255.255.224 |
| Gondor-Shire | 128.10.46.32 | /30 | 255.255.255.252 |
| Gondor-Eriador | 128.10.46.36 | /30 | 255.255.255.252 |
| Gondor-Arnor | 128.10.46.40 | /30 | 255.255.255.252 |
| Gondor-Rohan | 128.10.46.44 | /30 | 255.255.255.252 |
| Arnor-Eriador | 128.10.46.48 | /30 | 255.255.255.252 |
| Arnor-Cardolan | 128.10.46.52 | /30 | 255.255.255.252 |
| Cardolan-Mordor | 128.10.46.56 | /30 | 255.255.255.252 |
| Shire-Cardolan | 128.10.46.60 | /30 | 255.255.255.252 |

**Addressing Table:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Device name** | **Interface** | **IPv4 Address** | **Subnet Mask** | **Default Gateway** |
| Mordor | Fa0/0  Se0/0/0 | 128.10.0.1  128.10.46.57 | 255.255.224.0  255.255.255.252 |  |
| Cardolan | Fa0/0  Se1/0  Se1/1  Se1/2 | 128.10.32.1  128.10.46.54  128.10.46.58  128.10.46.61 | 255.255.252.0  255.255.255.252  255.255.255.252  255.255.255.252 |  |
| Eriador | Fa0/0  Se1/0  Se1/1 | 128.10.36.1  128.10.46.38  128.10.46.49 | 255.255.252.0  255.255.255.252  255.255.255.252 |  |
| Arnor | Fa0/0  Se1/0  Se1/1  Se1/2 | 128.10.40.1  128.10.46.41  128.10.46.53  128.10.46.50 | 255.255.252.0  255.255.255.252  255.255.255.252  255.255.255.252 |  |
| Shire | Fa0/0  Se1/0  Se1/1 | 128.10.44.1  128.10.46.33  128.10.46.62 | 255.255.255.0  255.255.255.252  255.255.255.252 |  |
| Gondor | Fa0/0  Se1/0  Se1/1  Se1/2  Se1/3 | 128.10.45.1  128.10.46.34  128.10.46.42  128.10.46.46  128.10.46.37 | 255.255.255.0  255.255.255.252  255.255.255.252  255.255.255.252  255.255.255.252 |  |
| Rohan | Fa0/0  Se1/0 | 128.10.46.1  128.10.46.45 | 255.255.255.224  255.255.255.252 |  |
| PC0 |  | 128.10.44.101 | 255.255.255.0 | 128.10.44.1 |
| PC1 |  | 128.10.0.3 | 255.255.224.0 | 128.10.0.1 |
| PC2 |  | 128.10.45.100 | 255.255.255.0 | 128.10.45.1 |
| PC3 |  | 128.10.36.15 | 255.255.252.0 | 128.10.36.1 |
| PC4 |  | 128.10.36.16 | 255.255.252.0 | 128.10.36.1 |
| PC5 |  | 128.10.46.20 | 255.255.255.224 | 128.10.46.1 |
| PC6 |  | 128.10.46.21 | 255.255.255.224 | 128.10.46.1 |
| Printer0 |  | 128.10.40.15 | 255.255.252.0 | 128.10.40.1 |
| Printer2 |  | 128.10.45.150 | 255.255.255.0 | 128.10.45.1 |
| Laptop0 |  | 128.10.44.110 | 255.255.255.0 | 128.10.44.1 |
| Laptop1 |  | 128.10.40.10 | 255.255.252.0 | 128.10.40.1 |
| Laptop2 |  | 128.10.32.2 | 255.255.252.0 | 128.10.32.1 |
| Laptop3 |  | 128.10.32.3 | 255.255.252.0 | 128.10.32.1 |
| Sauron (Server) |  | 128.10.0.2 | 255.255.224.0 | 128.10.0.1 |