**Addressing Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Device** | **Interface** | **IP Address** | **Subnet Mask** | **Default Gateway** |
| Remote-Site1 | G0/0 | 192.168.72.129 | 255.255.255.240 | N/A |
| G0/1 | 192.168.72.97 | 255.255.255.224 | N/A |
| S0/0/0 | 192.168.72.145 | 255.255.255.252 | N/A |
| Remote-Site2 | G0/0 | 192.168.72.65 | 255.255.255.224 | N/A |
| G0/1 | 192.168.72.1 | 255.255.255.192 | N/A |
| S0/0/0 | 192.168.72.146 | 255.255.255.252 | N/A |
| Sw1 | VLAN 1 | 192.168.72.130 | 255.255.255.240 | 192.168.72.129 |
| Sw2 | VLAN 1 | 192.168.72.98 | 255.255.255.224 | 192.168.72.97 |
| Sw3 | VLAN 1 | 192.168.72.66 | 255.255.255.224 | 192.168.72.65 |
| Sw4 | VLAN 1 | 192.168.72.2 | 255.255.255.192 | 192.168.72.1 |
| User-1 | NIC | 192.168.72.142 | 255.255.255.240 | 192.168.72.129 |
| User-2 | NIC | 192.168.72.126 | 255.255.255.224 | 192.168.72.97 |
| User-3 | NIC | 192.168.72.94 | 255.255.255.224 | 192.168.72.65 |
| User-4 | NIC | 192.168.72.62 | 255.255.255.192 | 192.168.72.1 |

**Step 2:     Determine the subnet mask information for each subnet.**

a.     subnet mask will accommodate the number of IP addresses required for **Sw1** is 255.255.255.240

usable host addresses will this subnet support is 14

b.    Which subnet mask will accommodate the number of IP addresses required for **Sw2** is  255.255.255.224

usable host addresses will this subnet support is 30

c.     Which subnet mask will accommodate the number of IP addresses required for **Sw3** is  255.255.255.224

usable host addresses will this subnet support is 30

d.    Which subnet mask will accommodate the number of IP addresses required for **Sw4** is

 255.255.255.192

usable host addresses will this subnet support is 62

e.     subnet mask will accommodate the number of IP addresses required for the connection between **Remote-Site1**and **Remote-Site2** is 255.255.255.252

**Subnet Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Subnet Description** | **Number of Hosts Needed** | **Network Address/CIDR** | **First Usable Host Address** | **Broadcast Address** |
|  | 58 | 192.168.72.0/26 | 192.168.72.1 | 192.168.72.63 |
|  | 29 | 192.168.72.64/27 | 192.168.72.65 | 192.168.72.95 |
|  | 15 | 192.168.72.96/27 | 192.168.72.97 | 192.168.72.127 |
|  | 7 | 192.168.72.128/28 | 192.168.72.129 | 192.168.72.143 |
|  | 2 | 192.168.72.145/30 | 192.168.72.146 | 192.168.72.149 |