**Small Office Home Office Network -SOHO**

Progetto N 2

* One router and one switch to be used (all CISCO products).
* 3 departments (Admin/IT, Finance/HR and Customer service/Reception).
* Each department is required to be in different VIANS.
* Each department is required to have a wireless network for the users.
* Host devices in the network are required to obtain IPv4 address automatically.
* Devices in all the departments are required to communicate with each other.
* ISP network ip 192.168.1.0

Objectives:

1. Creating a Simple Network using a Router and Access Layer Switch.
2. Connecting Networking devices with Correct cabling.
3. Creating VLANs and assigning ports VLAN numbers.
4. Subnetting and IP Addressing.
5. Configuring Inter-VLAN Routing (Router on a stick).
6. Configuring DHCP Server (Router as the DHCP Server).
7. Configuring WLAN or wireless network (Cisco Access Point).
8. Host Device Configurations.
9. Test and Verifying Network Communication.

Devices:

* 1 Router
* 1 switch
* 1 AP per Vlan = 3 AP
* 1 pc per Vlan = 3 pc
* 1 wireless per Vlan = 3 wireless device
* 62 host per subnett

Subnet 1:

Network: 192.168.1.0 /26

Valid: 192.168.1.1 - 192.168.1.62

Broadcast: 192.168.1.63

Subnet 2:

Network: 192.168.1.64 /26

Valid: 192.168.1.65- 192.168.1.126

Broadcast: 192.168.1.127

Subnet 3:

Network: 192.168.1.128 /26

Valid: 192.168.1.129- 192.168.1.190

Broadcast: 192.168.1.191