**Xarxes i Protocols**

**Lab 3**

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Grup 101

2022-23

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# **Verify the initial Settings on R0**

**What is the router’s hostname?**

Texto, Carta

Descripción generada automáticamente

Router1

**How many Fast Ethernet interfaces does the Router have?**

It has four Fast Ethernet interfaces.

**How many Serial interfaces does the router have?**

It has two Serial interfaces.

**Why does the router respond with the** *startup-config is not present* **message?**

It only shows this message the first time you enter its configuration. Once you have seen it you are supposed to have already configured it so it won’t show this message again.

# **Topology 1. LAN-LAN**

**Step 1: Analyze the table shown below and identify the network, mask and broadcast of the given IPv4 addresses.**

|  |  |  |  |
| --- | --- | --- | --- |
| **IP Address/Prefix** | **Network Address** | **Subnet Mask** | **Broadcast address** |
| 192.168.10.10/24 | 192.168.10.0 | 255.255.255.0 | 192.168.10.255 |
| 10.101.99.17/23 | 10.101.98.0 | 255.255.254.0 | 10.101.99.255 |
| 209.165.200.227/27 | 209.165.200.224 | 255.255.255.224 | 209.165.200.255 |
| 172.31.45.252/24 | 172.31.45.0 | 255.255.255.0 | 172.31.45.255 |
| 10.1.8.200/26 | 10.1.8.192 | 255.255.255.192 | 10.1.8.255 |
| 172.16.117.77/20 | 172.16.112.0 | 255.255.240.0 | 172.16.127.255 |
| 10.1.1.101/25 | 10.1.1.0 | 255.255.255.128 | 10.1.1.127 |
| 209.165.202.140/27 | 209.165.202.128 | 255.255.255.224 | 209.165.202.159 |
| 192.168.28.45/28 | 192.168.28.32 | 255.255.255.240 | 192.168.28.47 |

**Step 2: Analyze the table below and list the range of host and broadcast addresses given a network/prefix mask pair.**

|  |  |  |  |
| --- | --- | --- | --- |
| **IP Address/Prefix** | **First Host Addres** | **Last Host Address** | **Broadcast Address** |
| 192.168.10.10/24 | 192.168.10.1 | 192.168.10.254 | 192.168.10.255 |
| 10.101.99.17/23 | 10.101.98.1 | 10.101.99.254 | 10.101.99.255 |
| 209.165.200.227/27 | 209.165.200.225 | 209.165.200.254 | 209.165.200.255 |
| 172.31.45.252/24 | 172.31.45.1 | 172.31.45.254 | 172.31.45.255 |
| 10.1.8.200/26 | 10.1.8.193 | 10.1.8.254 | 10.1.8.255 |

**Step 3: Analyze the table shown below and identify the type of address (network, host, multicast, or broadcast address).**

|  |  |  |
| --- | --- | --- |
| **IP Address** | **Subnet Mask** | **Address Type** |
| 10.1.1.1 | 255.255.255.252 | Host |
| 192.168.33.63 | 255.255.255.192 | Broadcast |
| 239.192.1.100 | 255.252.0.0 | Multicast |
| 172.25.12.52 | 255.255.255.0 | Host |
| 10.255.0.0 | 255.0.0.0 | Host |

**Step 4: Analyze the table shown below and identify whether the address/prefix pair is a valid host address.**

|  |  |  |
| --- | --- | --- |
| **IP Address/Prefix** | **Valid Host Address** | **Reason** |
| 127.1.0.10/24 | No | Local addres |
| 172.16.255.0/16 | Si |  |
| 241.19.10.100/24 | No | Multicast |
| 192.168.0.254/24 | Si |  |
| 192.31.7.255/24 | No | Broadcast |