# Task 1: Why are we using the 2911 router and not the others?

The **Cisco 2911 router** is preferred in this lab due to its capabilities for medium-sized networks:

* Multiple Gigabit Ethernet ports: It supports higher throughput, allowing for faster data transmission, which is essential in lab scenarios.
* Scalability: It can handle multiple services (data, voice, video) with integrated security features like a firewall and VPN.
* Advanced features: It supports a wide range of routing protocols and network services, making it more suitable for complex lab environments compared to simpler routers like the Cisco 1841 or Cisco 819.

In contrast, routers like the **1841** are suitable for smaller, less complex networks, while the **819** is designed for mobile or remote environments with cellular connectivity.

# Task 2: Why are we using the 2950T or 2960 switch and not the others?

The **Cisco 2950T/2960 switches** are commonly used in labs because:

* Cost-effective: They provide the necessary functionality for basic switching at a lower cost.
* Fast Ethernet (2950T) and Gigabit Ethernet (2960): These switches offer sufficient bandwidth for most lab environments, with the **2960** supporting higher speeds (1 Gbps) for more demanding tasks.
* Simplicity: They are Layer 2 switches, meaning they do not perform routing, making them ideal for handling intra-network traffic without unnecessary complexity.

In contrast, the **3560** is a Layer 3 switch, capable of performing routing tasks, but this complexity is not needed in simple lab setups focused on basic connectivity and switching tasks.

# Task 3: Design the network of "Lab-7" or “Lab-8” (2-3 rows of computers)

