**Lab Task: 02**

**Computer Network Lab.**

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Question:1

Why are we using 2911 router and not the others?

**Answer:**

The 2911 router is often chosen for its balance of performance, features, and scalability. Here are a few reasons why it might be preferred over other options:

**1.Modular Design:** The 2911 supports various interfaces and expansion modules, allowing for customization based on specific network needs.

**2.Performance:** It provides solid throughput for small to medium-sized businesses, making it suitable for a variety of applications without being overkill.

**3.Security Features:** It includes built-in security options, such as firewall capabilities and VPN support, which are essential for protecting network data.

**4.Ease of Management:** Cisco’s IOS provides a familiar interface for network administrators, simplifying configuration and management tasks.

**5.Cost-Effectiveness:** While it’s not the cheapest option, it often provides a good return on investment due to its reliability and feature set.

**6. Community and Support:** Being part of Cisco’s lineup means there’s extensive documentation, community support, and ongoing updates.

If you have specific needs or constraints, though, it might be worth looking into other models or brands. What are you trying to achieve with your networking setup?

**Question:02**

Why are we using 2950T or 2960 switch and not the others?

**Answer:**

The choice between using a Cisco 2950T or 2960 switch often comes down to a few key factors:

**1.Layer 2 vs. Layer 3 Capabilities:** The 2950 series is primarily a Layer 2 switch, whereas the 2960 can offer Layer 3 features in some models, allowing for basic routing capabilities. If you need routing at the switch level, the 2960 is the better choice.

**2.Performance and Scalability:** The 2960 series generally provides better performance, more ports, and higher bandwidth options compared to the 2950. This can be crucial for growing networks.

**3.Features and Flexibility:** The 2960 switches support more advanced features like VLANs, QoS, and PoE (Power over Ethernet) options, making them more suitable for modern network requirements.

**4.Support and Longevity:** The 2960 is a newer model with better ongoing support and updates compared to the older 2950 series, which is end-of-life and may not receive updates or support from Cisco.

**5.Cost and Availability:** Sometimes, the decision can also come down to cost and availability, especially in a budget-conscious environment.

Overall, the 2960 series tends to offer more modern features and capabilities, making it a more future-proof option for many network deployments.

**Question:03**

Design the network of "Lab-7" or “Lab-8” (2-3 rows of computers) Use: Switch, Router, & End-Devices like Laptop/PC?

**Answer:**