

**SUBJECT:** CN LAB

**TASK-2**

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Section: 5A

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

The Cisco 2911 router is often used in educational setups like labs because it offers a balance of features, affordability, and scalability. Some key reasons for using the 2911 router are:

1. **Versatility**: It supports a wide range of features like VPN, firewall, and wireless services, making it suitable for various networking scenarios.
2. **Modular Design**: It allows for easy upgrades with support for additional modules, like enhanced security or additional interfaces.
3. **Performance**: It handles moderate to high levels of traffic, ideal for university or small to medium-sized networks.
4. **Realistic Emulation**: The 2911 is used in labs to mimic real-world enterprise environments, as it is a commonly deployed router in businesses.
5. **Cost-Effective**: Compared to higher-end models like the 4000 series, the 2911 provides necessary features without the extra cost, making it more accessible for educational purposes.

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

The Cisco 2950T and 2960 switches are popular in labs for similar reasons:

1. **Entry-Level Managed Switches**: Both the 2950T and 2960 are basic managed switches that provide the necessary features for learning about VLANs, trunking, STP, and more.
2. **Layer 2 Switching**: These switches focus on Layer 2 functions, which are essential for switching tasks like MAC address learning and VLAN segmentation.
3. **Affordable and Widely Available**: These models are relatively cost-effective compared to advanced switches like the 3650 or 3750 series, making them ideal for learning purposes.
4. **Sufficient for Lab Environments**: Both switches provide sufficient port density (usually 24 or 48 ports) and speed (FastEthernet or Gigabit) to handle a typical lab setup with multiple devices.
5. **Feature Set**: The 2960 switch, in particular, offers support for newer technologies like Gigabit Ethernet and limited Layer 3 functionality, making it more versatile for modern labs.