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**Task 2 : CN Lab**

**Q1:Why are we using 2911 routers and not the others?**

The Cisco 2911 Integrated Services Router (ISR) is a popular choice among network administrators and students alike, and there are several reasons why it's often preferred over other routers in Cisco Packet Tracer.

Here are some reasons why the Cisco 2911 ISR is a popular choice:

**Performance and Scalability**

The Cisco 2911 ISR is a high-performance router that can handle a large number of users and devices. It's designed to provide high-speed routing, switching, and security services, making it an ideal choice for small to medium-sized businesses and enterprise networks.

**Flexibility and Customization**

The Cisco 2911 ISR is highly customizable, with a wide range of interface options, including Ethernet, serial, and WAN interface cards. This flexibility makes it easy to adapt to different network topologies and requirements.

**Security Features**

The Cisco 2911 ISR comes with a robust set of security features, including firewall, intrusion prevention, and encryption capabilities. This makes it an excellent choice for networks that require high levels of security and protection.

**Ease of Management**

The Cisco 2911 ISR is easy to manage and configure, with a user-friendly interface and a wide range of management tools and protocols. This makes it an ideal choice for network administrators who need to manage and troubleshoot networks quickly and efficiently.

**Compatibility and Interoperability**

The Cisco 2911 ISR is compatible with a wide range of Cisco and third-party devices, making it easy to integrate into existing networks.

**Cost-Effectiveness**

The Cisco 2911 ISR is a cost-effective option compared to other high-end routers, making it an attractive choice for businesses and organizations with limited budgets.

In Cisco Packet Tracer, the Cisco 2911 ISR is often used as a default router because it provides a good balance of performance, flexibility, and security features. It's also a popular choice among network administrators and students because it's easy to configure and manage, and it's widely supported by Cisco and other vendors.

That being said, the choice of router ultimately depends on the specific requirements of the network and the goals of the project. Other routers, such as the Cisco 2620XM or the Cisco 4331, may be more suitable for certain scenarios, and it's always a good idea to evaluate the specific needs of the network before making a decision.

**Q2:Why are we using the 2950T or 2960 switch and not the others?**

The Cisco 2950T and 2960 switches are popular choices in Cisco Packet Tracer due to their advanced features, performance, and security capabilities. Here are some reasons why they are often preferred over other switches:

The Cisco 2960 switch is positioned for the access layer, making it a good access layer choice

**Advanced Quality of Service (QoS)**

Both the Cisco 2950T and 2960 switches offer advanced QoS features, which enable network administrators to prioritize traffic and ensure that critical applications receive sufficient bandwidth.

**Security Features**

The Cisco 2950T and 2960 switches come with robust security features, including access control lists (ACLs), authentication, and encryption capabilities. This makes them an excellent choice for networks that require high levels of security and protection.

**Performance**

The Cisco 2950T and 2960 switches offer high-performance switching capabilities, making them suitable for networks with high traffic demands.

**Ease of Management**

Both switches are easy to manage and configure, with a user-friendly interface and a wide range of management tools and protocols.

**Compatibility and Interoperability**

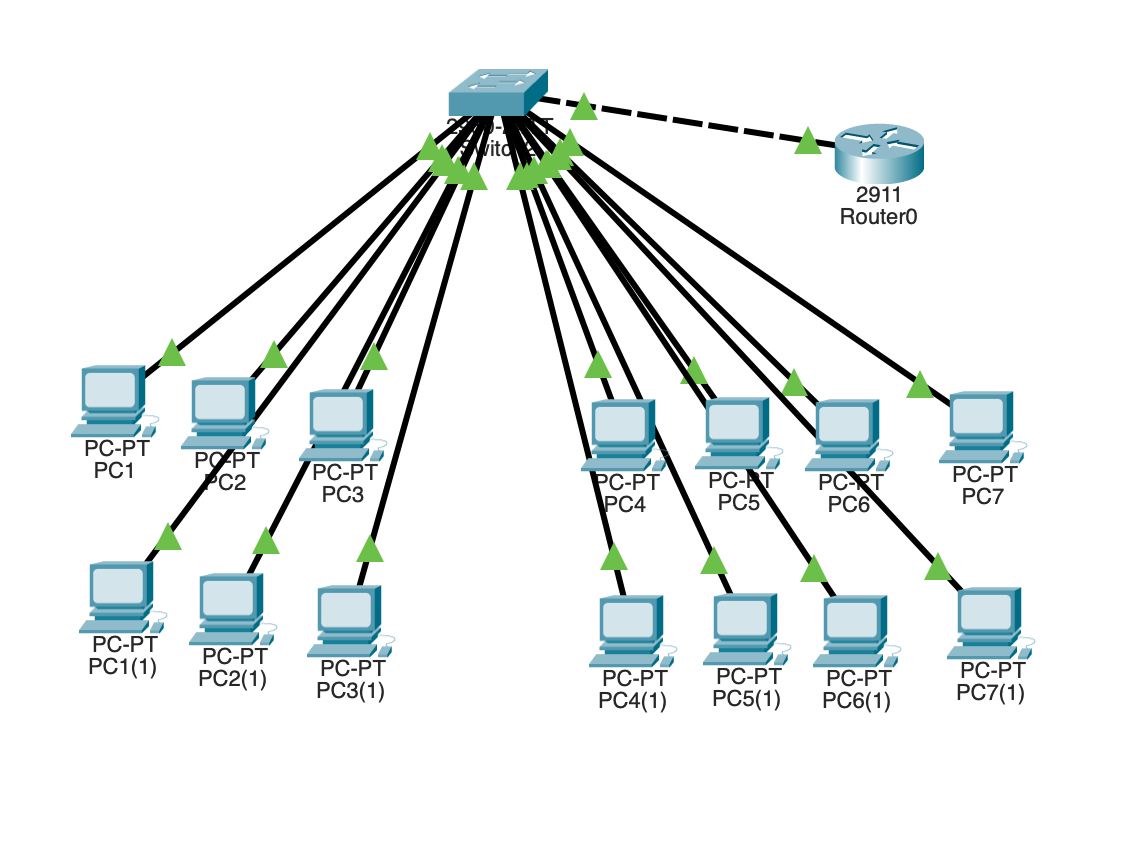
The Cisco 2950T and 2960 switches are compatible with a wide range of Cisco and third-party devices, making it easy to integrate them into existing networks.

In Cisco Packet Tracer, the Cisco 2950T and 2960 switches are often used as default switches because they provide a good balance of performance, security, and management features. However, the choice of switch ultimately depends on the specific requirements of the network and the goals of the project. Other switches, such as the Cisco 3750, may be more suitable for certain scenarios, and it's always a good idea to evaluate the specific needs of the network before making a decision.

**Question 3**

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

**Use: Switch, Router, & End-Devices like Laptop/PC**

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