Project

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Problem Statement:

A small company in Eastern Australia needs a separate network for its branch office, with three departments requiring wireless access and distinct VLANs. The network must consist of one router and one switch, both using Cisco products.

Steps

1. **VLAN Configuration:**

- Set up VLANs on the switch for each department.

- Use subnetting based on the base network provided by the ISP.

Subnetting Setup:

1. **Base Network Utilization:**

- Utilize the ISP-provided base network for subnetting.

- Determine the number of subnets needed based on the requirements of each department.

Wireless Access:

1. **Setup Wireless Access Points:**

- Install wireless access points in each department to provide user connectivity.

- Configure secure authentication and SSID settings for each wireless network.

VLAN Configuration & Inter-VLAN Routing:

1. **VLAN Setup:**

- Configure VLANs on the switch, assigning unique VLAN IDs to each department to segregate traffic.

2. **Inter-VLAN Routing:**

- Set up inter-VLAN routing to enable communication between departments.

- Create sub-interfaces on the router for each VLAN and assign IP addresses as default gateways for the respective VLANs.

Testing:

1. Connectivity and Functionality:

- Verify network connectivity and functionality.

- Ensure that devices in all departments can communicate effectively and securely.

Conclusion:

By following a structured approach, I successfully created a functional and efficient network infrastructure for the growing company in Eastern Australia, fulfilling all project requirements.