**Build an Enterprise Network (Single Site)**

**Inter company connectivity**

Team Members :

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**Objective :**

Objective :“Inter Company Connectivity” is a project aimed at enhancing communication and coordination between different departments or levels within the company through an advanced networking infrastructure. The project focuses on connecting various floors or levels, facilitating seamless information and resource exchange, and promoting collaboration and productivity in the workplace.

**Description:**

This topology represents a multi-layered network setup with various floors of a building and connections between routers, switches, and end devices across different VLANs.

**Key Components:**

**1. ISP and Core Routers:**

- The ISP is connected to the core routers (Cisco 2911 series) using two parallel links, which are likely for redundancy (denoted by red lines).

- The core routers are connected to two multilayer switches (Cisco 3560-24PS), which manage the internal distribution of traffic.

**2. Core Network (Blue Area):**

- Routers: Two core routers (R1, R2) connected via serial links with IP addressing in the range of `192.136.17.x/30` and connected to switches using the `172.16.3.x/30` network.

- Switches: Two Cisco 3560 multilayer switches handle traffic within the network using trunk links between them and to the core routers.

**3. Building Floors:**

- Each section of the building (Third Floor, Second Floor, and First Floor) is divided into VLANs and connected to switches on the respective floors.

**- Third Floor (Green Area):**

- VLAN 10 (IT): The management room and server room with IP addresses from `172.16.3.0/26`.

- Devices like PCs and servers (DHCP, DNS) are connected in this VLAN.

**- Second Floor (Orange Area):**

- VLAN 20 (HR & Logistics): IP addresses from the range `172.16.3.64/26`.

- Devices include PCs and printers connected to a switch.

**- First Floor (Yellow Area):**

- VLAN 30 (Sales & Marketing): IP addresses from `172.16.3.128/26`.

- Various end devices like PCs, laptops, and smartphones are connected through access points.

**4. Trunk Links:**

- The core network is interconnected using trunk links between routers and multilayer switches to allow for VLAN traffic across the network.

- These switches distribute traffic to the respective floors and VLANs.

**Network Features:**

- The topology uses VLAN segmentation for isolating traffic between different departments and floors.

- Redundant links are provided between the ISP and the core routers, ensuring high availability.

- The multilayer switches manage inter-VLAN routing and provide connectivity to the various VLANs.

This topology simulates a highly organized network structure with clear segmentation, offering scalability, reliability, and security.