**College Network System - Network Documentation**

**Overview**

This document outlines the network design for the college system, detailing the components, connections, and configuration for each block.

**Network Components**

**1. Server Center**

* **Default Gateway:** 192.168.2.1
* **Switch:** 2960-24TT (Switch 0) manages the servers in the Server Center.
* **Servers:**
  + Email Server: 192.168.2.2
  + DNS Server: 192.168.2.3
  + Web Server: 192.168.2.4

**2. Hostel Blocks**

**Boys' Block**

* **Router:** Hostel\_Router (Default Gateway: 192.168.3.1).
* **Switch:** 2960-24TT (S1).
* **Devices:**
  + Access Point: Provides wireless access.
  + Laptops:
    - 192.168.3.9
    - 192.168.3.10
  + PCs:
    - 192.168.3.6
    - 192.168.3.7
  + Smartphones: 192.168.3.8

**Girls' Block**

* **Router:** Hostel\_Router (Default Gateway: 192.168.3.1).
* **Switch:** Same as Boys' Block (S1).
* **Devices:**
  + Access Point: Provides wireless access.
  + Laptops:
    - 192.168.3.4
    - 192.168.3.5
  + Smartphones: 192.168.3.2

**3. Academic Blocks**

**Block AB1**

* **Router:** College\_Router (Default Gateway: 192.168.1.1).
* **Access Point:** Provides wireless connectivity.
* **Devices:**
  + PCs:
    - 192.168.1.17
    - 192.168.1.16
  + Laptops:
    - 192.168.1.14
    - 192.168.1.15

**Block AB2**

* **Router:** Same as Block AB1.
* **Access Point:** Provides wireless connectivity.
* **Devices:**
  + PCs:
    - 192.168.1.13
    - 192.168.1.12
  + Laptops:
    - 192.168.1.10
    - 192.168.1.11

**4. Dome Building**

* **Router:** Same as Academic Blocks.
* **Switch:** 2960-24TT (S0).
* **Devices:**
  + PCs:
    - 192.168.1.9
    - 192.168.1.8
  + Laptops:
    - 192.168.1.6
    - 192.168.1.7
  + Access Point: Provides wireless access to the Library.

**5. IT Consulting**

* **Router:** Same as Academic Blocks.
* **Access Point:** Provides wireless connectivity.
* **Devices:**
  + PCs:
    - 192.168.1.19
    - 192.168.1.20
  + Laptops:
    - 192.168.1.17
    - 192.168.1.18

**Interconnections**

* **Router Connections:**
  + Hostel\_Router connects to Main\_Router (192.168.3.1) via its switch.
  + College\_Router connects the Academic Blocks and Dome Building.
  + Main\_Router connects all routers to the Server Center.
* **Switch Connections:**
  + Switches within each block connect local devices and access points to the routers.

**Configuration Details**

* **Hostel Router:**
  + Console Password: admin
  + SSH Password: admin
* **College Router:**
  + Console Password: cmd@123
  + SSH Password: admin
* **Wireless Access:**
  + Password: 1234567890

**Purpose**

This network design ensures:

1. Reliable connectivity for all blocks, including wireless and wired devices.
2. Centralized server management for email, DNS, and web services.
3. Efficient segregation of departments for better bandwidth allocation.