

Network Configuration

IP Addressing Plan

Each building has its own subnet:

- Batiment A: 172.16.1.0/24
- Batiment B: 172.16.2.0/24 (central services)
- Batiment C: 172.16.3.0/24
- Batiment D: 172.16.4.0/24

DHCP ranges and gateways defined for each building

Inter-Building Links:

Point-to-point links between routers using /30 subnets

Server Configurations:

DHCP Server (Batiment B)

Assigns IP addresses to clients in all buildings

DNS Server (Batiment B)

Resolves domain names like `www.cumberland.college` , `ftp.cumberland.college`

FTP Server (Batiment B)

Allows file access with username/password authentication

Web Server (Batiment B)

Hosts a simple HTML welcome page

Router Configurations:

Basic Security Setup

- Console and SSH login with passwords
- Encrypted passwords
- MOTD banner
- SSH enabled for remote access

Static Routing

Manually configured routes between networks

Client Configurations:

DHCP Clients

Automatically receive IP settings

DNS Resolution

Verified across all buildings

FTP & Web Access

Confirmed from PCs in different buildings

Verification:

Ping Tests

Successful connectivity between devices

Service Testing

DNS resolution, FTP access, web browsing confirmed