

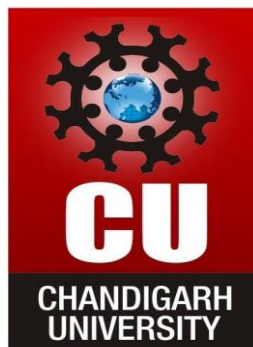
# **FIRST PROJECT REPORT OF** **Campus Architecture**

Submitted in partial fulfilment of the requirements for the award of degree of

**BACHELOR OF ENGINEERING**

**IN**

**COMPUTER SCIENCE & ENGINEERING**



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# **PROJECT DESIGN**

## **Campus Architecture**

This College Network Scenario is about designing a topology of a network that is a LAN (Local Area Network) for a College in which various computers of different departments are set up so that they can interact and communicate with each other by interchanging data. To design a networking scenario for a college which connect various departments to each other's, it puts forward communication among different departments. CNS is used to design a systematic and well planned topology, satisfying all the necessities of the college (i.e. client). CNS come up with a network with good performance. CNS is also providing security and authentication to forbid unauthorized logins.

CCNA: Cisco Certified Network Associate .CCNA is a well-liked certification in computer networking that is developed by Cisco Systems. CCNA is discovered by the Cisco, to identify basic capability in installation and maintenance of medium-sized networks. The technology is used for connecting various devices like routers, switches and different end devices to communicate with each other and interchanging data. To construct a methodical and reliable network, is scalable too. Portability is one of the characteristics of this work application of the CNS.

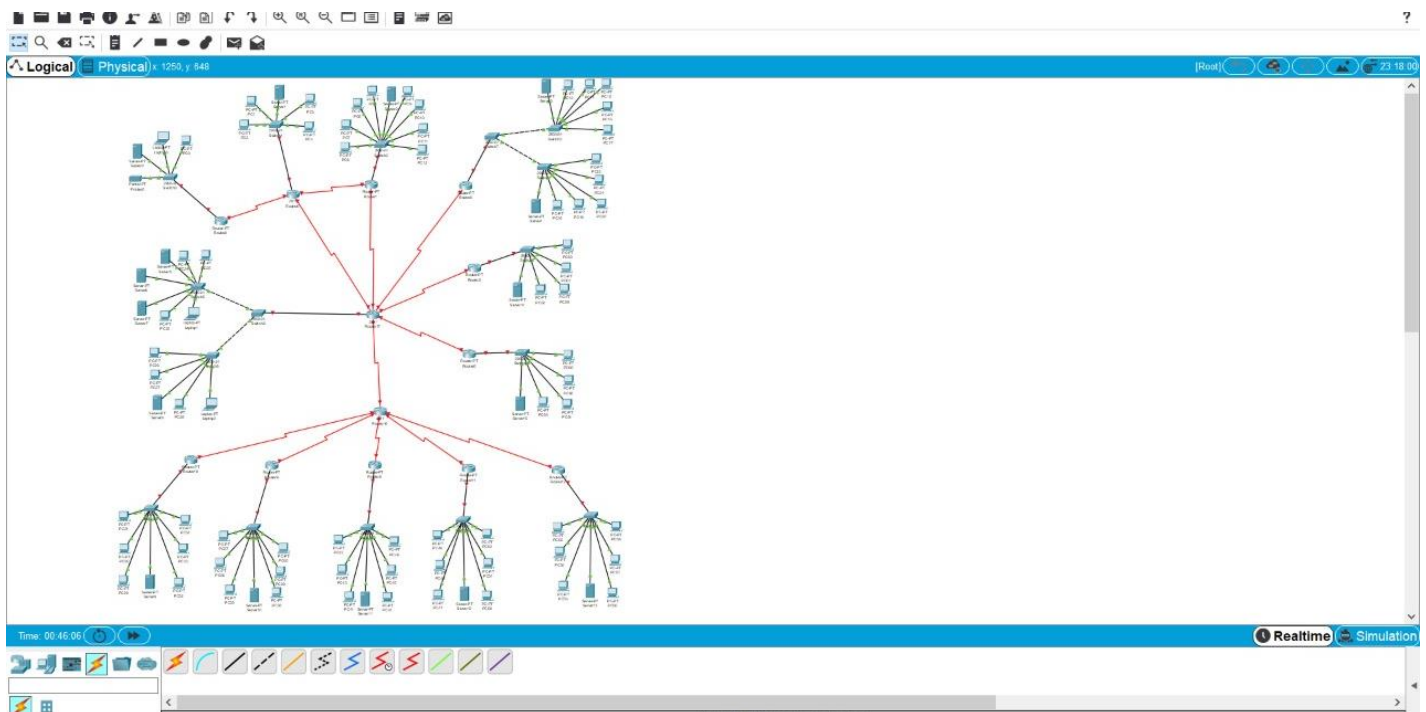
## **INNOVATION IN MODEL/DESIGN/SOLUTION**

1. This network is based on client-server architecture.
  2. Tree topology is used here.
  3. All client switches are present for the levels of college and they are associated to a server switch. 4.
- All the departments are categorized into various VLANs, which are connected to the all switches based on the sequence in which they are accommodated on the storey.
5. Likewise, various departments limited into VLANs and share switches corresponding to their levels.
  6. A request is made by any system of any department and it is forwarded to client switch which furthermore transmits it to the server.
  7. Port-securities are there that are executed on various ports of the switches and gives reliability.
  8. The data is then transferred to its connected router.
  9. We will define different user for each department

## **IMPLEMENTATION**

This is the project of campus architecture. In this project we have connected different department using router. There is a central router from which we have connected different engineering department like CSE, Civil, ECE etc. in common router. There are different numbers of system of each department and we will define different user and for each user we will use different email configure. We have created different password for each department and even configure the password for different routers. When we want to check the configure of router firstly we will select router then will write command Router, then will write enable and give password which has been assigned for that router and after that to check configuration we will write show run command and from this we will check all the router's configuration. We have connected all the router through eigrp. We have put an access limit in hostel department which will help to deny the whole hostel's communication from other departments for security purpose. So we have done almost 50% of this project.

This is the overview of Campus architecture.



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