



Find solutions for your homework

Search

[home](#) / [study](#) / [engineering](#) / [computer science](#) / [computer science questions and answers](#) / [a campus network design for a college. there are 100 ...](#)

## Question: A campus network design for a college. There are 100 users i...

A campus network design for a college. There are 100 users in the college. 30 users in the main building, 30 users in bldg 1, and 40 users in bldg 2. Every building has a lobby which is 200 sqft open space, where wireless access to the network is required. Only authorized personal should have access to the wireless network.

The distance between bldg 1 and the main building is 300 mtrs. The distance between bldg 2 and the main building is 90 mtrs. The distance between bldg 1 and bldg 2 is 70 mtrs. A high speed cable internet connection is available in the main building which needs to be shared among the users.

The necessary equipments and appropriate topology required for the campus network design along with the IP address schema, IP address management, secure wireless access, internet sharing, features and services should be worked out. A bill of material should be included with products from Microsoft, Cisco, D-LINK or Netgear with appropriate quantity which can be used for setting up of the campus infrastructure.

## Expert Answer



vinod123 answered this  
658 answers

Was this answer helpful?



### Campus Area Network Design

#### Project Scope:

This project represents a Campus Network Design for a college. There are 100 users in the college, 30 users in the main building, 30 users in Building 1, and 40 users in Building 2. Every building has a lobby which is 200 Sq. Ft open space, where wireless access to the network is required. Only authorized personal should have access to the wireless network.

The necessary equipment's and appropriate topology required for the campus network design along with the IP address schema, IP address management, secure wireless access, internet sharing, features and services should be worked out.

In this concept it is possible for the networker to check the Network Structure of a campus spread in the big area. The incoming & the outgoing traffic can be maintained along with some security concepts as well. Multiple Routing protocols have been used in different branches of campus and all the departments can communicate with other different departments through the Redistribution among different Routing Protocols. The East Building of company has a DHCP server for assigning the IP Addresses to the Hosts in the building as well as a DHCP server has been used in the West Building of company as well. The Internet Service Provider has been used for Communication of the East & West Building of company with the Data Centre & Internet through ISP, using the Frame Relay Switching Technology available for Wide Area Network. Routing Protocols EIGRP along with the Synchronous Number, Static Routing & its concepts including the Default Routing as well has been applied.

#### Devices Used:

- 1.4 SERIAL CABLES
- 2.4 MULTI LAYER SWITCH
- 3.6 COPPER CROSS OVER
- 4.32 COPPER STRAIGHT THROUGH
- 5.5 ROUTERS
- 6.4 SWITCHES (LAYER 2)
- 7.26 PCs
- 8.6 SERVERS
- 9.4 SERIAL CABLES

#### NETWORK SCENERIO

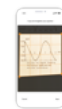
### Post a question

Answers from our experts for your tough homework questions

Enter question

### Continue to post

16 questions remaining



### Snap a photo from your phone to post a question

We'll send you a one-time download link

888-888-8888

Text me

By providing your phone number, you agree to receive a one-time automated text message with a link to get the app. Standard messaging rates may apply.

### My Textbook Solutions



Cost  
Accounting  
15th Edition

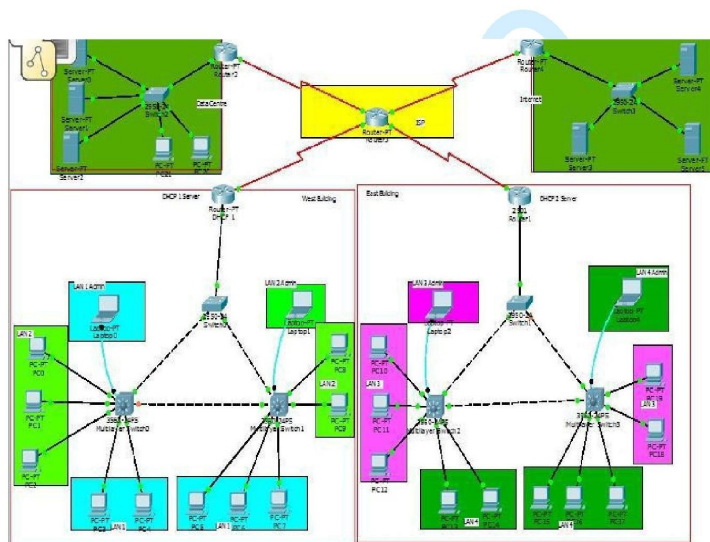


Introduction  
to...  
2nd Edition



Introduction  
to PSpice...  
9th Edition

[View all solutions](#)



Comment >

### Up next for you in Computer Science

Today's networks are based on the TCP/IP protocol suite: Can you briefly explain for me the origins of TCP/IP? If

[See answer](#)

Which network category is NOT based on geographic dispersion of network components? A. Personal-area network (PAN)

[See answer](#)

[See more questions for subjects you study](#)

### Questions viewed by other students

**Q:** For this project, you will be working in a team to redesign a campus area network for an enterprise customer. You will be completing an assessment of the business goals, a design of a new network to meet these goals, developing a new IP addressing scheme, and documenting network topology with Visio. Scenario You are a network engineer for a medium-sized enterprise business with a...

**A:** [See answer](#)

**Q:** A campus network design for a college. There are 100 users in the college; 30 users in the main building, 30 users in bldg 1, and 40 users in bldg 2. Every building has a lobby that is 200 sqft open space, where wireless access to the network is required. Only authorized personal should have access to the wireless network. The distance between bldg 1 and the main building is 30...

**A:** [See answer](#)

[Show more](#) v

---

COMPANY ▾

---

LEGAL & POLICIES ▾

---

CHEGG PRODUCTS AND SERVICES ▾

---

CHEGG NETWORK ▾

---

CUSTOMER SERVICE ▾

---



© 2003-2021 Chegg Inc. All rights reserved.