

**FBLA NETWORK DESIGN****CASE STUDY****PARTICIPANT INSTRUCTIONS**

1. You have 20 minutes to review the case.
2. Presentation time is seven minutes. At six minutes the timekeeper will stand and hold up a colored card indicating one minute is left, and at seven minutes the timekeeper will stand and hold up a colored card indicating time is up.
3. The presentation is interactive, and the judges will ask questions throughout the presentation.
4. Each team member will be given two note cards. A flip chart also will be available. Note cards and flip chart pages will be collected following the presentation.
5. All members of the team must participate in the presentation, as well as answer the questions. Cover all the points described in the case.

**PERFORMANCE INDICATORS**

- Logical solution is selected and presented with positive and negative aspects of its implementation given
- Alternatives are recognized with pros and cons stated and evaluated
- Thoughts and statements are well organized and clearly stated; appropriate business language is used
- Demonstrate ability to effectively answer questions and interact with judges

**Continued**

## CASE STUDY SITUATION

Holyoke Vet Clinic is a large and small animal veterinarian clinic owned and run by Dr. Hamden. Recently, Dr. Hamden decided to expand his office to include three off-site mini-clinics where large animals could be weighed and have ultrasound and other data collected. The data collected at each mini-clinic would need to be instantly available at the main clinic. Each mini-clinic will need four computers hooked up to medical equipment and one ink-jet scanner/copier/fax/printer machine. All of the medical equipment and their corresponding accessories have already been purchased.

Dr. Hamden has contacted you requesting a proposal showing how you would bring his vision of the three mini-clinics into reality. He has asked for a detail-oriented presentation covering all aspects of implementation as well as an explanation of how the equipment works and communicates. The systems at each mini-clinic need to be connected internally and externally to the main office. Dr. Hamden has also requested a price breakdown and overall cost of the project.

Project requirements:

- ❖ There must be an adequate level of security for all systems connected.
- ❖ The printers will be connected so the data can be printed at the mini-clinic or main office.
- ❖ Provide for limited downtime at the main office when the mini-clinics come online.
- ❖ Provide a suite of software for all communications, email, fax, printing, and Word Processing. The data collecting software has already been purchased.
- ❖ The network must be configured so that it can be managed from an off-site computer.
- ❖ Your proposal must include costs for all the software, network hardware, NIC cards, and all wiring.
- ❖ The costs must be kept as efficient as possible.

Complete your proposal including costs for computing equipment, network infrastructure, network servers, printers, and related hardware, software, and accessories. Include as much detail as possible as well as justification for your selections. Diagram and explain your physical network and computer design as well as the logical network design (server installation, domain layout, etc.). Because this is a small business, cost is a major factor and should be minimized.

**FBLA NETWORK DESIGN****CASE STUDY****JUDGE'S INSTRUCTIONS****JUDGING THE PRESENTATION**

1. This is a role-playing event with the judges serving as Dr. Hamden, owner of Holyoke Vet Clinic.
2. Review the "Case Study Situation" and the "Judge's Considerations."
3. After introductions, you should begin the meeting by welcoming the team members. The team members will then begin their dialogue with Dr. Hamden. The other judges could play the role of office manager, etc.
4. This is an interactive problem, so treat the presentation as a conversation. Each of the members of the team should respond to at least one question or issue. At six minutes the timekeeper will stand and at seven minutes the timekeeper will stand and hold up a colored card indicating time is up.
5. You will close the event by thanking the participants for their input and recommendations. The participants will hand in their note cards and flip chart paper before leaving.
6. Complete the rating sheet.

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### **JUDGES' CONSIDERATIONS**

- ❖ Provide for long-term cost effectiveness.
- ❖ Products are priced within reason.
- ❖ If a T1 line is used in implementation, the cost should be a concern.
- ❖ The use of Virtual Network Computing (VNC) in order to remotely control another computer should be seriously considered essential.
- ❖ Provide for centralized server either using Microsoft Active Directory or a solution such as LDAP.
- ❖ Firewalls must be installed on all the computers.
- ❖ There should be a server and router at each site.
- ❖ All switches should be SOHO-grade.
- ❖ The Virtual Private Network (VPN) software should be in place on all computers and using SSL as the protocol.
- ❖ There should be some discussion of data backups.
- ❖ Employees should have appropriate permissions on files and Internet access.

- ❖ File encryption should be used on all computers.
- ❖ Computers should have very tight security.
- ❖ The network must be extremely fast and have the ability to expand as the business grows.
- ❖ There should be in place 100 mbps or higher network switches as well as extra open ports to allow for future growth.
- ❖ The server's hard drives should have a 1TB capacity at the minimum.
- ❖ Wireless connections should be at least 802.11g.
- ❖ Provide for the ability to expand to other mini-clinics.
- ❖ The main server should have several NIC cards to handle the extra traffic.
- ❖ After all the networking and computers are set up there should be limited downtime (24 hours maximum).
- ❖ The total time taken to get this project completed should be, at the most, 2 weeks, maybe 3 if complications arise.
- ❖ Make sure that all vendors involved need to provide same or next day service for any hardware.
- ❖ All contracts with vendors should be thoroughly thought out and looked at by a lawyer.

There is no right or wrong answer to the event. However, in a team event, the ability of the team members to work together to come to a consensus, based on the facts provided (and those that you care to add) should be the basis for the score. The individual or team should present its suggestions with clarity and conviction.

Feel free to enhance the story as much as you want, but if you enhance it for one, make sure you enhance it for all the groups.