

INDIVIDUAL PROJECT: DESIGNING AN INTERNET CAFÉ (60 PTS.)
Instructor: Gene Mesher **Due: Monday, March 12th, 2003, 6:00 p.m.**

I. INTRODUCTION: DESIGNING AN INTERNET CAFÉ.

This assignment's goal is to provide an introduction to network design based on knowledge that you should already have some familiarity with or that is easily obtained by visiting local vendors.

Imagine your close friend, wants to redesign her coffee shop to be an Internet Café, but doesn't know anything about computers or networking. Knowing you are an MIS major, your friend asks for your help. Since your friend is barely "computer-literate", however, you'll have to supply many of the details of how this facility will operate.

[NOTE: the purpose of the assignment is to make students familiar with the basics of designing a small network along with the equipment and networking connections needed for that network. Alternate projects other than the one above are possible and encouraged, especially for more advanced students who already have some networking background but these projects must also include the following:

- a. A written description of the project submitted by Wednesday, February 26th at 6:00 p.m. (about one paragraph will do)
- b. A PowerPoint slideshow and brief presentation to the class on your project.]

All Proposals for the e-commerce facility must include the following:

1. *Executive Summary*
2. *Project Description (including Equipment List, Budget and Timeline)*
3. *Network Diagram*
4. *Disaster Recovery and Security*

1. EXECUTIVE SUMMARY: a one-page summary of the highlights of your proposal. Make sure to include such details as the total estimated cost of the project, the networking approach used, and the security facilities that will be included and any other important ideas that will help make your proposal, and the effort you put into it, stand out. Please avoid generalities and focus on the details of your project.

2. PROJECT DESCRIPTION: present a detailed project budget along with a timeline for its completion. This should include the following:

1. **Research Methodology:** How did you decide on the information that you present here? What organizations and individuals did you contact? What web sites did you look at? If you already have a significant networking or procurement background, you can include a description of this. You may want to discuss this directly to check on its relevance.
2. **Equipment list:** a list of all hardware and software you recommend for the project (with prices). Include a paragraph explaining and justifying your choices. Cables should be included in your equipment list but a separate cabling diagram is not required.
3. **Budget:** a budget (use Excel or other spreadsheet program) for the project, including subtotals for the following categories (note: please do **not** include consulting fees):
 - a. Hardware
 - b. Software
 - c. Recurring costs (e.g., monthly maintenance and network connection costs)

- d. **Project Timeline:** a list of all the steps needed from start to finish for the project. Please use a Gantt Chart for this with an accompany list explaining what each step entails.

(Note: In the past, I have occasionally seen ridiculously high budgets. This is meant to be a serious assignment and so the budget numbers need to “make sense.”)

3. NETWORK CONFIGURATION. The café will include local computing facilities that you will specify including the computer and networking hardware, office application and network software along with the associated services of designing, installing and configuring the network. The site will need to have the following specifications determined:

1. **Software and hardware description:** must also be supplied and include a server and support for a generic office environment (these will be listed in the equipment list, but you will also need to **discuss** the overall network design in this section).
2. **Network description:** including hardware and software components and Internet connectivity. The local network will include 12 laptops (one per table) and one desktop desktop computer for the office/kitchen area and associated network hardware. Wireless Access also needs to be provided for the patio and interior of the main room.
3. **Internet connectivity:** describe the approach to connecting the facility to the Internet. This needs to include a WAN calculation showing how you decided on the capacity of the network connection you chose.
4. **Network Topology Map utilizing Cisco icons.** Note: not all Cisco Icons are available in the PowerPoint slideshow posted so it may not be possible to produce a network diagram that is 100% based on Cisco Icons. You are still, however, expected to do a conscientious job of using these icons to your best ability.

Note that a variety of network approaches are possible and so there is no one “right” answer to this assignment.

4. DISASTER RECOVERY AND SECURITY (see Chapter 10 of text):

- a. **Disaster Recovery:** a Disaster Recovery Plan (DRP) for restoring the network in the event of a network failure will be needed. Dennis provides a checklist for an effective disaster recovery plan (see p. 318).

Note that there are two levels of Disaster Recovery Plans: Level I, where equipment is destroyed but not the facility, and Level II where the facility needs to be relocated. For the purpose of this assignment, you need to **plan for a Level I disaster only**.

- b. **Security:** you will need to address security network concerns related to unauthorized access to network resources (esp. a **firewall and secure web communications**).

III. PROJECT SUBMISSION GUIDELINES:

1. FORMATTING: The proposal must be doubled spaced, using Times New Roman, 12-point font and have 1” margins all around. Proposal length should be about 5-8 pages long (excluding reference materials) and include the following elements: cover page, table of contents, page numbering.

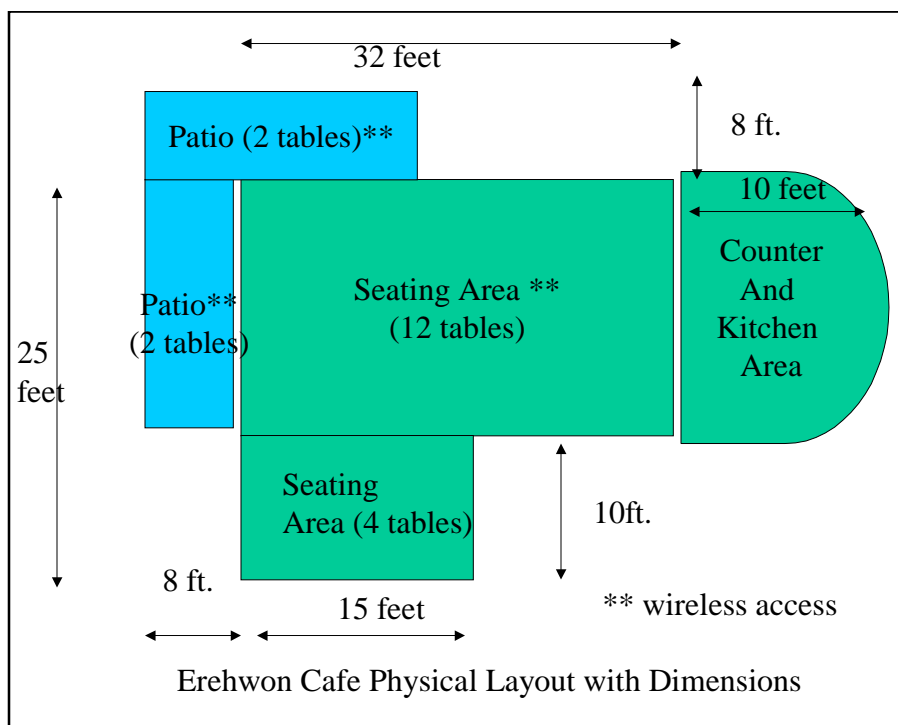
2. REFERENCES: Because this is an academic research assignment, information presented in the proposals must be adequately documented. All proposals must include a bibliography and in-

text citations both should be made according to MLA style. *In-text citations are an especially important measure of the quality of your effort.* In store visits and/or phone calls, must be footnoted and include the time and date and name and location of the company, name of the contact person, contact number and e-mail for the person contacted. Also, when referencing information web sites, please make sure to include the most accurate URL possible. Citations such as www.cisco.com are inadequate and may result in points being taken off.

3. DUPLICATION AND PLAGIARISM: There is always concern that some of the contents of a report are simply copied from other sources, especially other student papers and web sites. The goal here is to ensure that the project you turn in is your own intellectual product and coming from another source. Research papers found to have identical passages will be considered plagiarized, will be investigated and may result in a grade of 0 for the project. Likewise, *make sure that any materials taken from websites or other references are properly identified with in-text citations.*

4. GRADING: Your grade will be based on a combination of factors including:

- Quality of the writing (was it neatly done and clearly written)
- Thoroughness of the report (were all of the details of the bid adequately considered)
- Quality of the research (how extensive and detailed was your research)



Writing/Grading Standards for MIS 140 Network Proposals

Below are the guidelines I will follow to grade the Network Proposal.

Minimum acceptance criteria: See RFP for outline and formatting details.

Note that: CSUS has a Writing Center where you can get help on your writing at:
Calaveras Hall 128, 278-6356: www.csus.edu/ewc

A – EXCELLENT

- Clear and coherent organization. Paper makes connections between ideas.
- Carefully researched.
- Relevant sources cited and effectively integrated into the text.
- Written in consistent Standard English.

B – STRONG

- Organization is clear and coherent
- Adequately researched.
- Cites relevant sources.
- Written in consistent Standard English

C – ADEQUATE

- Organization is adequate
- Some research.
- Cites appropriate sources.
- Displays adequate control of Standard English

D – SERIOUSLY FLAWED

- Organization is poor, formulaic, random or confusing.
- Little or no research evident.
- Fails to cite sources, cites irrelevant sources, or integrates them into the text inappropriately
- Show deficient control of Standard English

F – FUNDAMENTALLY DEFICIENT

- The paper shows an inability to generalize, analyze or support ideas.
- Little or no research evident.
- Fails to cite or quote outside sources correctly and/or plagiarizes sources*
- Shows inadequate control of Standard English

*** Cases of serious plagiarism will result in an assignment grade of 0.**