

Lab 5.1.1.4 Applying Design Constraints

Objective

- Analyze the business goals and technical requirements and apply the constraints in order to begin the design.

Expected Results and Success Criteria

Before starting this lab, read through the tasks that you are expected to perform. What do you expect the result of performing these tasks will be?

Why is identifying the constraints that apply to a project an important part of the network design?

Background / Preparation

FilmCompany is an expanding advertising company moving into interactive advertising media, including video presentations. This company has just been awarded a large big video support contract by the StadiumCompany. With this new contract, FilmCompany expects to see their business grow approximately 70 percent.

To facilitate this growth, the FilmCompany has decided to significantly upgrade its data network. You have the role of network design consultant. Your job is to develop network design and project documents for the FilmCompany that will meet the requirements of this upgrade.

This lab is one of a series of labs that explore the FilmCompany existing network and its upgrade requirements.

A comprehensive network project plan has to include details of constraints that apply to the project as well as potential trade-offs that need to be made. In this lab, you use the identified organizational constraints from the FilmCompany case study and adjust your design according to the trade-offs identified. These constraints will be used in the decision-making process for the proposed design.

Step 1: Identify possible project constraints

- a. Use word processing software to create a new Project Constraints document.
- b. The identified constraints that set limits or boundaries on the network upgrade project should be entered into the Gathered Data field of the constraints document. Brainstorm ideas with other students to identify additional constraints.

Classify each constraint as one of the following four types:

- Budget
- Policy
- Schedule
- Personnel

Step 2: Tabulate comments based on the identified constraints

- Using the list of constraints discovered from the FilmCompany case study, apply appropriate comments on how the constraints affect the design.
- Enter the comments into a table.

| FILMCOMPANY CONSTRAINTS | | |
|-------------------------|---------------|----------|
| CONSTRAINT | GATHERED DATA | COMMENTS |
| Budget | • | • |
| Policy | • | |
| Schedule | • | • |
| Personnel | • | • |

- Save your Project Constraints checklist.

Step 3: Identify trade-offs

- Use word processing software to create an addition to the Project Constraints document.
- The identified constraints that set limits or boundaries on the network upgrade project will require potential trade-offs. Discuss ideas with other students regarding trade-offs for proposed designs.

- Record the trade-offs in your Project Constraints checklist.
- Save your Project Constraints checklist.

Step 4: Reflection

The constraints imposed on this network design project are determined by the internal requirements of the FilmCompany. Consider and discuss the identified constraints and potential trade-offs. Do the trade-offs pose a significant obstacle to the design? Are there alternate methods that can be employed to achieve the success criteria without a significant budget?
