

## Feasibility Reports

from *The Technical Writer's Companion*, Third Edition, by Gerald J. Alfred, Charles T. Brusaw, Walter E. Oliu

When organizations plan to undertake a new project- develop a new product or service, expand a customer base, purchase new equipment, or consider a move- they first try to determine the project's chances for success. A feasibility report presents evidence about the practicality of a proposed project based on specific criteria. For example: Is new construction or development necessary? Is sufficient staff available? What are the costs involved? What are the legal or other special requirements? Based on the findings of this analysis, the writer recommends whether the project should be carried out.

### Report Sections

Every feasibility report should contain an introduction, a body, a conclusion, and a recommendation.

#### **Introduction**

The introduction states the purpose of the report, describes the circumstances that led to the report, and includes any pertinent background information. It may also discuss the scope of the report and any procedures or methods used in the analysis of alternatives, and it notes any limitations of the study.

#### **Body**

The body of the report presents a detailed evaluation of all the alternatives under consideration. Evaluate each alternative according to specific criteria, such as cost, availability of staff and financing, and other relevant requirements, separating the subsections with headings, if needed.

#### **Conclusion**

The conclusion summarizes the evaluation of alternatives and usually points to one alternative as the best or most feasible.

#### **Recommendation**

This section clearly presents the writer's opinion on which alternative best meets the criteria as summarized in the conclusion.

## Typical Feasibility Report

Consider a scenario in which an engineering firm needs to upgrade its computer system and Internet capability. The staff might conduct a feasibility study to determine the hardware and software that would best meet their requirements. The staff will evaluate the alternatives according to the organization's established requirements. The following shows how a feasibility report might be organized.

### Introduction

The purpose of this report is to determine which of two proposed options would best enable ACM Technology Consulting to upgrade its mainframe computer system and its Internet capacity to meet its increasing data and communication requirements.

### Background

In October 20--, the Information Development and Technical Support Group at ACM put the MISSION System into operation. Since then, the volume of processing transactions has increased fivefold (from 1,000 to 5,000 updates per day). This increase has severely impaired system response time; in fact, average response time has increased from less than 10 seconds to 120 seconds. Further, our new Web-based client services system has increased exponentially the demand for processing speed and access capacity.

### Scope

Two alternative solutions to provide increased processing capacity have been investigated: (1) purchase of a new ARC 98 processor to supplement the first, and (2) purchase of an HRS 60/EP with PRS enterprise software and expandable peripherals to replace the current ARC 98. The two alternatives are evaluated here according to cost and, to a lesser extent, according to expanded capacity for future operations.

### Purchasing a Second ARC 98 Processor

This alternative would require additional annual maintenance costs, salary for an additional computer specialist, increased energy costs, and a one-time construction cost for necessary remodeling as well as installing Internet and other connections.

Annual maintenance costs	\$35,000
Annual costs for computer specialist	75,000
Annual increased energy costs	<u>7,500</u>
Annual operating costs	117,500
Constructional cost (one-time)	<u>50,000</u>
Total first-year cost	167,500

The costs for the installation and operation of another ARC 98 processor are expected to produce savings in system reliability and readiness.

### **System Reliability**

A second ARC would reduce current downtime periods from four to two per week. Downtime recovery averages 30 minutes and affects 40 users. Assuming that 50 percent of users require the system at a given time, we determined that the following reliability savings would result:

2 downtimes x 0.5 hours x 40 users x 50% x \$12.00/hour overtime x 52 weeks = \$12,480 (annual savings)

### **Conclusion**

A comparison of costs for both systems indicates that the HRS 60/EP would cost \$2,200 more in first-year costs.

ARC 98 Costs	
Net additional operating	\$56,300
One-time (construction)	<u>50,000</u>
First-year total	106,300

HRS 60/EP Costs	
Net additional operating	\$84,000
One-time (facility)	<u>24,500</u>
First-year total	108,500

Installation of a second ARC 98 processor would permit the present information-processing systems to operate relatively smoothly and efficiently. It would not, however, provide the expanded processing capacity that the HRS 60/EP processor would for implementing new subsystems required to increase processing speed and Internet access.

### **Recommendation**

The HRS 60/EP processor should be purchased because of the long-term savings and because its additional capacity and flexibility will allow for greater expansion in the future.