Experiment No.:

Aim: Case study on feasibility study.

Introduction

A feasibility study is a type of analysis used in measuring the ability and likelihood to successfully complete a project including all relevant factors. It must account for factors that affect it such as economic, technological, legal and scheduling factors. Project managers use feasibility studies to determine potential positive and negative outcomes of a project before investing a considerable amount of time and money into it. Instead of diving into a project and hoping for the best, a feasibility study acts as a precursor for project managers to investigate the possible negative and positive outcomes of a project before investing too much time and money.

Importance of Feasibility Studies

Feasibility studies allow companies to determine and organize all of the necessary details to make a business work. A feasibility study helps identify logistical problems, and nearly all business-related problems, along with the solutions to alleviate them. Feasibility studies can also lead to the development of marketing strategies that convince investors or a bank that investing in the business is a wise choice.

Components of a Feasibility Study

There are several components of a feasibility study:

Description – a layout of the business, the products and/or services to be offered and how they will be delivered.

Market feasibility – describes the industry, the current and future market potential, competition, sales estimations and prospective buyers.

Technical feasibility – lays out details on how a good or service will be delivered, which includes transportation, business location, technology needed, materials and labor.

Financial feasibility – a projection of the amount of funding or startup capital needed, what sources of capital can and will be used, and what kind of return can be expected on the investment.

Organizational feasibility – a definition of the corporate and legal structure of the business; this may include information about the founders, their professional background and the skills they possess necessary to get the company off the ground and keep it operational.

Types of Feasibility studies

Technical Feasibility - Does the company have the technological resources to undertake the project? Are the processes and procedures conducive to project success?

Schedule Feasibility - Does the company currently have the time resources to undertake the project? Can the project be completed in the available time?

Economic Feasibility - Given the financial resources of the company, is the project something that can be completed? The economic feasibility study is more commonly called the cost/benefit analysis.

Cultural Feasibility - What will be the impact on both local and general cultures? What sort of environmental implications does the feasibility study have?

Legal/Ethical Feasibility - What are the legal implications of the project? What sort of ethical considerations are there? You need to make sure that any project undertaken will meet all legal and ethical requirements before the project is on the table.

Resource feasibility

Describe how much time is available to build the new system, when it can be built, whether it interferes with normal business operations, type and amount of resources required, dependencies, and developmental procedures with company revenue prospectus.

Financial feasibility

In case of a new project, financial viability can be judged on the following parameters:

- Total estimated cost of the project
- Financing of the project in terms of its capital structure, debt to equity ratio and promoter's share of total cost
- Existing investment by the promoter in any other business
- Projected cash flow and profitability

The financial viability of a project should provide the following information:

- Full details of the assets to be financed and how liquid those assets are.
- Rate of conversion to cash-liquidity (i.e., how easily the various assets can be converted to cash).
- Project's funding potential and repayment terms.
- Sensitivity in the repayments capability to the following factors:
    - Mild slowing of sales.
    - Acute reduction/slowing of sales.
    - Small increase in cost.
    - Adverse economic conditions.

FEASIBILITY STUDY OF PROPOSED SYSTEM

Description of Proposed System

By building SpyD we aim to provide a product similar to current pen test tools like PineAP at a very considerably lower price along with packet tracing which will help the organization to manage their security.

Objectives

- Develop a system that can replace the conventional penetration testing systems
- Perform tests to eliminate vulnerabilities
- Develop a tool which analyses incoming and outgoing traffic

- Create an easy user interface for users to trace and perform tests
- Help perform attacks like Man-in-the-Middle, eavesdropping, etc

Improvements

Further studies can be done in the field to upgrade SpyD into an Intrusion Detection System that will assist the users in identifying malicious users by monitoring their packet usage and whereabouts.

Financial feasibility

	IC	Cost
Processor	**AR7240**	**3500 Rs**
Flash ROM	**Spansion S25FL032P**	**350 Rs**
SDRAM	**Windbond W9425G6JH**	
	Zentel A3S56D40FTP-G5	**2000 Rs approx.**
Chipset(Wi-Fi controller)	**AR9331**	**1300 Rs approx.**
Total Estimated		**7150 Rs**

Technical Feasibility

The team has the technical resources to undertake the project and provide the end product on time.

Schedule Feasibility

Enough time required for the project development is available and hence, can be feasible to undertake the project.

Economic Feasibility

Provides an alternative to the conventional Pineapple Wifi at a very lower cost and additional features. Thus, feasible to develop it.

Cultural Feasibility

SpyD is an automated network penetration device/bot which will be able to perform all major operations through the means of an automated script with built in failsafe which can be performed be any professional ethical hacker.

Legal/Ethical Feasibility

An ethical device that performs tests to eliminate any vulnerabilities. Completely legal usage.

Resource feasibility

All required resources are provided and available and it can be developed with ease with the help of the development team and resources.

Market feasibility

As people are realizing the importance of cyber security, the price for hacking tool such as Pineapple is increasing rapidly. One Pineapple device can cost up to Rs. 21000+Tax+Shipping charges. Due to high cost people do not prefer buying such a product which hamper their security as an organization. By building SpyD we can provide a similarly effective product at a very considerably lower price which will help the organization to manage the security.

Impacts

Small scale companies can use SpyD and use this at a minimal cost rate as compared to other pentest devices like PineAP.

Security and Privacy Impacts

SpyD can improve the system security of the organization exponentially by providing failsafes against vulnerabilities and monitoring the usage of incoming and outgoing packets.

Conclusion

Hence, we have prepared the feasibility study for the proposed system.