## Presented by: [Your Name Here]

## Version [0.0]



Feasibility Study

# Feasibility Study

[The Feasibility Study is used to provide a recoding of the objectives, requirements, and system concepts of the proposed system, including rationale and possible schedules. During this phase, the business objectives of the system are defined in a language both client and supplier can understand. Included in this document should be performance objectives, security models and data recovery concerns, accompanied by any assumptions and constraints. The information recorded in this document will be used by the technical team for actual design of the final solution.]

## Project Overview

| Customer Name: |  |
| --- | --- |
| Name of Project: |  |
| Project Manager: |  |
| Technical Lead: |  |
|  |  |
|  |  |

## Objective

*[Describe your objective for this document. E.G. This will be presented at the next directors meeting as a potential project worth pursuing. Although there are some risks involved with this customer, a diligent approach to this project could result in a long term relationship.]*

Describe your objectives for this report here. Why is it being produced? Who will be reading it? Is it up-to date and relevant? Is it a fair and unbiased review of the situation?

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# Introduction

## Purpose

Describe the purpose of the Feasibility Study. This could be as simple as ‘To determine if customer XYZ is a potential candidate for our existing solution’ or it might be more elaborate and will need to be detailed enough to educate and inform the final decision makers.

## Scope

Describe the scope of the Feasibility Study as it relates to the project. You should document not only what is potentially going to be included in the final solution, but also what will be left out. You should record the ‘scope’ of any disaster recovery process, and the level of vendor action when dealing with an issue. Typically, issues pertaining to support contracts are described in a separate document, however, if support could be a deciding factor on whether this project is feasible then it must be included within this document.

## Points of Contact (Stakeholders)

### Key Contacts for this project

Provide a list of the key personnel or points of contact (POC) that may be needed by the document reader for gathering further information and research purposes. At a minimum include their title, their name, their contact number and an indication to their decision making status. Points of contact may include but are not limited to customer helpdesk, internal development team, external contractors, product suppliers etc.

| Title | Name | Number | Decision Maker? |
| --- | --- | --- | --- |
| Internal / Director | Bob Smith | 01234 657890 | Yes |
| Customer CEO / Director | Jane Doe | 09876 543210 | Yes |
| Technical Lead | C. Munky | Ext. 433 | No |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

### 1.3.2 Additional Co-ordination Vectors

Provide a list of all third-party providers, contractors, and suppliers that may be required to play a role in the design, development and delivery of this software solution. Also document the role this company will play (e.g., hosting company, security provider, etc.).

| Title | Contact Name | Number |
| --- | --- | --- |
| ABC Hosting | Mike Long | 01234 657890 |
| XYZ Electricals | Peter Plough | 09876 543210 |
| Code Contractor 1 | Julie Smith | xxx |
|  |  |  |
|  |  |  |

# 2. Feasibility Summary

## 2.1 System Details

### 2.1.1 Input/Output

Identify the system input and output requirements.

E.g. this solution will need to generate a dozen reports on a nightly basis. Each report will be delivered via electronic mail to one or more recipients. An existing mail solution is already present at the customer’s site, and verbal agreement has been made that changes can be made if required.

You should include information on all expected forms of input and output from the system:

* Is this realistic?
* Are there time constraints that make this impossible?
* What criticality are these features?

Including, but not limited to:

* Reporting requirements
* Analytic Feedback
* Status Notifications
* Required Data dumps
* Etc…

### 2.1.2 Security Requirements

Identify the system’s security requirements.

* How will data be secured?
* What volume of users are we dealing with?
* Can we leverage Active Directory, or does this require bespoke solution?
* How will user administration be managed?
* Etc.…

### 2.1.3 Integration Points

Identify the interaction with other systems. External systems include data-sinks and data-sources. Information being injected into the system from an external source, may be time critical, consideration should be given to this aspect of the proposed solution.

* Out
  + Reports must be output to .xlxs format.
  + Database backup will be automated and stored elsewhere.
  + Etc.
* In
  + A nightly data import of 25,000 records will occur at 9pm.
  + Users to the system include:
    - Internal Employees
    - Customers via website
    - Suppliers via web-services
    - Etc.

### 2.1.4 Physical Environment

Identify the physical environment. Listing all physical constraints including:

* Existing/New Operating Systems (requirements)
* Existing/New Hardware (requirements)
* Internal/External Services (mail/reporting/ftp locations)
* Storage Capacity Requirements

### 2.1.5 Current Functional Procedures

Describe current functional procedures of any existing system(s), whether automated or manual.

* Specifically, document the major processing and data flow of the current system(s).
* List the capacity of the existing system and the proposed new capacity for transactions.
* List required skills matrix (will specialized training be required?)
* List existing benchmarks / performance tests from existing system.

## 2.2 Functional Objectives

Following some preliminary requirements gathering you will have developed an idea of that business objectives the customer is trying to address. You need to document these anticipated functions of the system here, considering such topics as:

* Increased capacity
* Legislation requirements,
* Privacy and security requirements
* Auditing and Reporting
* Data Integrity
* Etc.

All requirements must be recorded here, in order for the feasibility to be gauged realistically and truthfully. Omission of functional objectives can spell disaster for project lifecycles.

## 2.3 Non-Functional Objectives

Identify major non-functional objectives of the customer. Each non-functional object will play into the risk factor when determining if this is a feasible / viable project. Non-functional requirements are constraints imposed around how the system must function:

* Maintainability
* Operability
* Performance (see next section)
* Etc.

## 2.4 Performance Objectives

Identify major performance objectives, considering such areas as increased productivity, management decisions, control over automated processes, and compliance with regulations. Define the system’s processing requirements, in terms of tangible, measurable goals:

* Is there a minimum transactions per hour count?
* What volume of data will be input on a daily basis?
* Is there a performance response time?
  + Does this relate to calculation time?
  + Can these job be scheduled for out of hours?

## 2.5 Assumptions and Constraints

Determine the assumptions and constraints that are expected of the new system. Assumptions are usually drawn from deficits in the current system. E.g. the current system takes too long to save a record! It takes 2hours to generate the end of month reports!

Constraints need to defined, so that assumptions and expectations can be managed correctly. It might be assumed that the new system will have an operational life-time for the next 5 years. This may be realistic or it may not.

Define and list item such as:

* Allowing a period of time for comparison of system alternatives
* Assumptions surrounding the number of input, output, and transactional requirements
* Financial constraints, including
  + The cost of changing existing hardware
  + The cost of purchasing new software
* Assumptions around the suitability of existing operating environment
* Any assumptions made around the availability of information and resources.

All assumptions need to be verified before a final decision can be made as to the feasibility of any proposed system. Discussing these issues with the customer, may bring to light new requirements, or measurable performance goals that could ‘swing the decision’ either way.

## 2.6 Methodology

Describe the approach that will be undertaken to assess the suitability of the new system. Are there existing benchmarks and performance measures that can be used for comparison?

List any requirements that MUST be met in order for the new system to be accepted.

Identify the criteria regarding:

* The development process.
* Considerations regarding the current tools used by the vendor.
* Proposed software development models.
* Priority and timescale constraints.

## 2.7 Consequences Of No Action

State the consequences of not taking action, and what this could mean to the customer. Also determine if no action is the best course of action for your company and the possible customer.

* Is this project a viable investment of your resources and efforts?
* Determine what delays and risks can be tolerated by the customer?
* Define ANY non-moveable deadlines, if present?
* Is this date realistic and achievable?
* Could the customer change their existing processes, rather than purchasing a new system?
* Etc.

# 3 Proposed System

## 3.1 Description of Proposed System

Describe a high-level view of the new system and define how the customer goals and objectives will be met. Include any definitions of the modular nature of the solution. If the system is NOT a complete replacement then describe the integration points.

## 3.2 Benefits

Based on measurable criteria define the potential benefits to the customer. Each benefit may be used to justify a go/no go decision related to this project.

E.g.

* Invoice capture time will be reduced by 70%.
* Customer self-service will free up 2 internal resources.
* …

## 3.3 Time and Resource Costs

List the proposed project timescale and resource costs pertaining to the vender. This section should list all aspects of the project process, including:

* Requirements capture
* Initial documentation time
* Development time
* Testing time
* User acceptance time.
* Etc.

When making the estimates, remember to include such factors as existing skillsets and training costs. Research into legislation and domain knowledge. New development tools and environment setup costs.

## 3.4 Impacts

In the following subsections, describe the potential impacts of implementing a new system, including potential financial and human-resource issues.

### 3.4.1 Equipment Impacts

Describe new equipment requirements and changes to currently available equipment.

### 3.4.2 Software Impacts

Describe any additions or modifications to existing applications and support software in order to adapt them to the proposed system.

### 3.4.3 Organizational Impacts

Describe any organizational, personnel, and skill requirement changes.

* Will new users require a level of training first, before they can use the system?
* What are the plans for training the existing staff?
* Will there be a train the trainer session planned?

### 3.4.4 Operational Impacts

Describe any impacts or constraints that are being imposed by the day to day operations of the organisation, such as:

* User operating procedures
* Standard Operating procedures (SOP), SOP and User relationships
* Data capture and editing procedures
* Data Storage
* Disaster Recovery Plans and Requirements
* Standard Expected Reporting (monthly / adhoc)
* Known up time requirements (typically 99.99)

### 3.4.5 Developmental Impacts

Describe the developmental impacts, such as:

* Will the development team be responsible for data migration?
* What actions will the customer be responsible for, with regards to development activities?
* What computer / personnel and tooling will be required from the development team?
* What expertise can the customer offer to the development?
* And on what basis will the customer be able to respond to development questions?

### 3.4.6 Site or Facility Impacts

Describe any real-world building or office modification that may be required:

* Is there an existing server room?
* Is there suitable rack space?
* How many new machines are planned?
* Can some older hardware be repurposed?

### 3.4.7 Security and Protection Considerations

Describe any security and data protection activities or requirements that may require bespoke development or custom configuration to take place:

* What data protection rules need to be enforced?
* What legislation governs this customer’s data and data privacy?
* Will you be able to read the existing data in order to migrate it?

### 3.5 Rationale for Recommendations

State the reasoning that supports the recommendation of the proposed system over the alternative systems.

# 4 ALTERNATIVE SYSTEMS

## Alternative systems

This section provides a description of the alternative systems considered in this feasibility study. Sometimes, it is not practical to create and implement an entirely new solution, when consultation or process reviews may provide a more financially viable alternative.

### 4.1 Third Party Products

List possible third party products that may provide instant solutions to certain aspects of this project proposal. For example:

* Are there existing Mail or Reporting components that can be ‘slot’ into the development of the new system?
* Do you as the vendor have existing expertise in these products?
* Are there any ongoing running costs to using these units?

### 4.2 Consultation / Recommendations

Alternative systems are not limited to ‘box-products’. Consultation and process reviews can be used to refine existing patterns of business operations. In this section describe all opportunities for remedial solutions that do not require development work:

* Can you recommend an existing product and take a commission instead of bespoke development?
* What training can you offer to assist the customer with their current goals?
* What recommendations are you giving when a particular alternative should be avoided or not used?
* Etc.

# 5 Appendix A

## 5.1 Project References

Provide a list of the references that were used in preparation of this document. Examples of references are:

* External Websites and Academic Papers
* Internal Documentation from previous projects
* Internal Standard Operating Procedure documentations (including version numbers)
* Consultations with contractors or suppliers
* Etc.

## 5.2 Acronyms and Abbreviations

Provide a list of the acronyms and abbreviations used in this document and the meaning of each. E.g.

| Acronym | Friendly Name | Meaning |
| --- | --- | --- |
| OOP | Object Oriented Programming | An approach to creating modular code that improves readability and maintainability. |
| ISI | Internal Stock Inventory | This is a legacy system that requires integration. This may pose a risk as it is no longer supported by original vendor. |
|  |  |  |
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