# Feasibility Evidence Description (FED)

# We Are Trojans

# Team No.1

|  |  |
| --- | --- |
| Punyawee Pakdiying | 1. Builder, 2. Feasibility Analyst, 3. Implementation Team, 4. System Architect, 5. NDI / NCS Acquirer, 6. NDI NCS Evaluator |
| Eirik Skogstad | Project Manager,  Implementation Team,  Life Cycle Planner,  System Architect |
| Min Li | Implementation team,  Builder,  Operational Concept Engineer,  UML Modeler,  Feasibility Analyst,  IIV&V |
| Pittawat Pamornchaisirikij | Implementation Team,  Builder,  Prototype,  System Architect,  Tester,  NDI/NCS Acquirer,  NDI NCS Evaluator |
| Saloni Priya | Operational Concept Engineer,  Requirements Engineer,  UML Modeler,  Implementation Team |
| Suleyman Erten | Implementation Team,  Operational Concept Engineer,  Requirement Engineer,  UML Modeler |
| Kamonphop Srisopha | Implementation Team,  Prototyper,  UML modeler,  Builder |
| Ameer Elkordy | Shaper,  IIV&V,  QFP,  SRE |
| Matthew Wong | Client |

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# 09/24/2014

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# Version History

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|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date | Author | Version | Change made | Rationale |
|  |  |  |  |  |

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# 1. Introduction

# 

# The concrete win conditions have been proposed into the project.

* Check the benefit analysis for all stakeholders
* The client propose the reliability of the system

# 

# << Discuss the purpose of the FED>>

# << Discuss the status of the FED especially key differences from the previous version, for example The risk of possible components mismatch has been removed The client postponed the hardware acquisition to next fiscal year and business case analysis is updated accordingly. >>

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# 2. Business Case Analysis

# 

# 2.1 Cost Analysis

# << Identify all possible cost either in monetary term or non-monetary term, such as hours spent, qualitative benefits for the project. Please note that you do not include the effort cost spent by development team, include only cost spent by clients. >>

# 2.1.1 Personnel Costs

# << Identify all personnel-related cost from exploration phase to operation phase. Example can be found at ICSM EPG>Task: Analyze Business Case >>

# Table 1: Personnel Costs

|  |  |
| --- | --- |
| **Activities** | **Time Spent (Hours)** |
| **Development Period (24 weeks)** |  |
| **Valuation and Foundations Phases: Time Invested (CSCI577a, 12 weeks)** |  |
| Client and team: Meeting via email, phone, and other channels [3 hrs/week \* 12 weeks \* 9 people] | 324 |
| Developers: Meeting via email, phone, and other channels [8 hrs/week \* 12 weeks \* 8 people] | 768 |
| winwin sessions [3 hrs/week \* 4 weeks \* 10 people] | 120 |
| **Development and Operation Phases: Time Invested (CSCI577b, 12 weeks)** |  |
| Client: Meeting via email, phone, and other channels [3 hrs/week \* 12 weeks \* 9 people] | 324 |
| Developers: Meeting via email, phone, and other channels [6 hrs/week \* 12 weeks \* 9 people] | 648 |
| Developers: Development software [8 hrs/week \* 12 weeks \* 8 people] | 768 |
| Architecture Review Boards and Core Capability Drive-through session [ 3 hrs \* 3 times \* 10 people] | 90 |
| Deployment of system in operation phase and training  - Installation & Deployment [5 hrs \* 3 times \* 9 people]  - Training & Support [5 hrs \* 2 times \* 8 people] | 135 |
| Total | 3177 |
|  |  |
| **Maintenance Period (1 year)** |  |
| Maintenance [3 hr/week \* 52 weeks] | 156 |
| **Total** | 3333 |

1. **2.1.2 Hardware and Software Costs**
2. << Identify all hardware and software-related cost from exploration phase to operation phase. Example can be found at ICSM EPG>Task: Analyze Business Case >>

**Table 2: Hardware and Software Costs**

|  |  |  |
| --- | --- | --- |
| **Type** | **Cost** | **Rationale** |
| Hardware - Web Hosting | $150 /year | we do not have the web host. |
| Graphic editor | $0 | Used in our project |

# 

# 2.2 Benefit Analysis

# << Analyze benefits from this project. Benefits could be in the quantitative form such as more revenue, saved effort, and qualitative form such as increase of reliability. Example can be found at ICSM EPG>Task: Analyze Business Case >>

# Table 3: Benefits of We Are Trojans System

1. the benefit is

* **Increase camaraderie between Trojans**
* **One-stop shop to answer any USC related queries**
* **Increase communication between students across school**

|  |  |  |
| --- | --- | --- |
| Current Activities & resources used | % Reduce | Time Saved (Hours/Year) |
|  |  |  |
|  |  |  |
| Total |  |  |

# 2.3 ROI Analysis

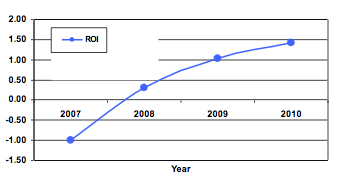
# << Calculate Return on Investment by using your cost and benefit analysis results and identify the breakeven point. Note, if you have hardware and software cost, it must be included in ROI calculation. For effort cost, if you use a salary as your calculation base, assume 10% annually increase. Example can be found at ICSM EPG>Task: Analyze Business Case>>

# Table 4: ROI Analysis

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year | Cost | Benefit  (Effort Saved) | Cumulative Cost | Cumulative Benefit | ROI |
|  |  |  |  |  |  |

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# Figure 1: ROI Analysis Graph



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# 3. Risk Assessment

# Table 5: Risk Assessment

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Risk** | **Potential Magnitude** | **Probability Loss** | **Risk Exposure** | **Risk Mitigation Plan** |
| Undefined Plan and Requirements: The requirements of the system are not solid, and are just partly known. Requirement have a tendency to change with project development. | 8 | 9 | 72 | Identifying all the success-critical-stakeholder and framing Win-Win negotiation with all success-critical-stakeholder is necessary |
| Lack of Invovement by success-critical-stakeholders:Do not understand clearly enough the success-critical Stakeholder positions | 5 | 10 | 50 | Further understanding of needs and system scoping is needed |
| User Risk: users may not accept to use the system even if all the specification are met by the system | 5 | 10 | 50 | We need to have certain level of discussion with the actual users as to whether they are willing to learn and use the new system we are developing |
| Architecture/Reuse/Non-Development Item conflict: There is no current server available for our system. The COTS/NDI used are poorly matched. A database system may be needed in order to keep the accounts, logs and forum information | 5 | 8 | 40 | 1. Looking for services provided only and analyze all options if they are suitable to our conditions. Establish off-line server for using as a prototype for the clients manages to overcome the problem of interoperatibility |
| Client's availability: He is extremely busy. Schedule a meeting during class schedule might not be possible | 5 | 8 | 40 | Forsee meetings in due time, acquire cilent's schedule. Client must notify team if he is busy during hours he is otherwise available. |
| Human-System integration shortfalls: We do not have human factors expertise and need to come up with the user-friendly interface | 5 | 7 | 35 | Research on the exsiting apps and see which designs is easily used by users |
| Scope and Time constraint: The scope of this project is very large. There are many components that need to be considered. To include all functionalities client mentioned within this time constraint might not be possible | 7 | 3 | 21 | Prioritize all features and develop the most needed features first |
| Human Resources and Contractors:Reaching the current USC database to acquire a student data, level of permission to acess his details and give points based on his achievements | 4 | 2 | 8 | Re-prioritize features if this issue occurs |

# << Identify our project risk, its exposure and its mitigation plan. Please note risk is a threat or probability that something will happen and possibly create loss or injury. So, if your threat or your incident is already happened, then it is a problem, not a risk. More example of risks can be found at ICSM EPG> Task: Assess and Plans to Mitigate Risks>>

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# 4. NDI/NCS Interoperability Analysis

# 4.1 Introduction

# 4.1.1 COTS / GOTS / ROTS / Open Source / NCS

# << Identify all candidate commercial off-the-shelf, government-off-the-shelf, research-off-the-shelf, open source software, libraries, and net-centric services component that you are using/ plan to use. Also identify the purpose of each component. >>

# Table 6: NDI Products Listing

|  |  |
| --- | --- |
| NDI/NCS Products | Purposes |
| CMS (Joomla, Drupal, Wordpress) | Provide general functions for manage content on website |
| DBMS (MySQL) | For keeping, managing, and retrieving data storage used in the system |
| Webserver (PHP based) | Infrastructure for our system |
| JQuery | Provide DOM manipulation methods |
| CSS framework (ex. bootstrap, foundation) | CSS API to customize user interface on website |

# 4.1.2 Connectors

* We use PHP/MySQL Connector to enable the PHP web application to retrieve and query data from the database.

# 4.1.3 Legacy System

# We have no legacy system

# 

# 4.2 Evaluation Summary

# << Summarize the final selection of your interoperable NDI/NCS, its usage and its comment. Example can be found in ICSM EPG> Task: Analyze NDI Interoperability for NDI / NCS project. >>

# WE HAVE NO NDI/NCS AT THE MOMENT

# Table 7: NDI Evaluation

|  |  |  |
| --- | --- | --- |
| NDI | Usages | Comments |
|  |  |  |