

Life Cycle Plan (LCP)

United Directed Marketing

Team 9

Fall Semester

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Version History

Date	Author	Version	Changes made	Rationale
09/26/12	CS	1.0	Fill out the sections 1.1, 1.2, 1.3 and 3.2, 3.3 Identify all the rolls and skills of the members of development team	Understand the purpose of the LCP and identify the responsibilities of each rolls and skills of development team
09/30/12	CS	1.1	Updated sections 2.1, 2.2, 3.1 4.1, 4.2 Modify contents	Set the schedule and discuss the details of development strategy
10/03/12	CS	1.1	Updated sections 3.1,3.2,3.3	Bug #7060, Redefined and updated roles of team members
10/05/12	CS	1.1	Updated sections 1.3,2.1,2.2	Schedule 577b and update overall strategy. Adding assumptions.
10/10/12	CS	1.2	Modified section 3.3 and updated 4.2	Correct current skills from grader's comment
10/14/12	CS	2.0	Satisfy the minimum exit criteria of LCP for Core FCP	Core FCP
10/19/12	CS	2.1	Update the section 2 and section 5	Update the Milestones and products. Estimate the module cost by using COCOMO
10/20/12	CS	2.1	Satisfy the minimum exit criteria of LCP for Draft Core FCP	Draft FCP
10/22/12	CS	2.1	Update the section 5	Using COTIPMO to estimate the costs of modules
10/30/12	CS	2.2	Update the section 3.3	Adding current and required skills based on the TA's comments. Also, satisfy the ARB condition
11/03/12	CS	2.2	Modified section 1.3, 2.1 and satisfy the criteria of FCP	Suggestions made in the ARB Meeting
11/12/12	CS	2.2	Modified the section 2.1	Fixed Bug#7474
11/19/12	CS	2.3	Modified section 1.2, 2, 3, 5	Corrected errors and updated schedule, responsibilities and COCOMO based on TA's comments
11/24/12	CS	3.0	Satisfy the minimum exit criteria of DCP for Draft DCP	Draft DCP
11/29/12	CS	3.1	Update the section 3	Suggestions made in the DCR ARB Meeting
12/08/12	CS	3.2	Satisfy the minimum exit criteria of LCP for DCP	Updated section 6

Date	Author	Version	Changes made	Rationale
1/27/13	KZ	3.3	Fixed spelling and grammar typos throughout document Updated team member list with members from Spring semester	Correcting typos Updating with new team roster
2/09/13	CS	4.0	Satisfy the minimum exit criteria of LCP for Draft RDC package	Re-estimate COCOMO and fix any change in 577b
2/19/13	CS	4.1	Satisfy the minimum exit criteria of LCP for RDC package. We change architecture agile to NDI single	Reviewed and revised all the documents because we changed into NDI single
3/11/13	CS	4.2	Modified the section 3.1	Fixed Bug#8091
3/27/13	CS	5.0	Satisfy the minimum exit criteria of LCP of IOC1	Updated section 6.1,6.2
3/27/2013	SA	5.1	Updated section 6.2	Preparing for CCD
4/10/13	CS	5.2	Updated section 6.1 and 6.2	After CCD the team got feedback and try to fixed the bugs/issues. Satisfied CCD exit criteria
5/03/13	CS	5.3	Update section 1,6	Update COPTIMO and satisfy the exit criteria

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1. Introduction

1.1 Purpose of the LCP

The purpose of the life cycle plan is to assess the Life cycle content, identify the responsibilities and skills of each team members. This artifact can clearly depict the most common questions about a project or activities during development: why? (Objectives to be achieved), whereas? (Assumption), what? (Milestones), when? (Products (to be delivered)), who? (Responsibilities), where? (Location), how? (Approach), how much? (Resources)

1.2 Status of the LCP

This version of the Life Cycle Plan document is at the final phase with a version number 5.3. This version updated the section 1 and 6.

1.3 Assumptions

- The duration of the project is 24 weeks, which are 12 weeks in fall 2012 and 12 weeks in spring 2013.
- All the success-critical stakeholders, team members and clients understand their responsibilities clearly.
- The system is able to market and the market share is remaining to be captured.
- The client will not change the system requirements without discussing.
- The team members, clients, and the entire critical stakeholders will discuss to each other immediately once there a problem has happened.

2 Milestones and Products

2.1 Overall Strategy

Our team will adopt the single NDI pattern to develop the United Directed Marketing (UDM) project. We use Fuel and CodeIgniter tools (PHP based) to develop our system. The team follows ICSM to develop the system and review the milestones at each phase. First, we keep discussing and negotiating with clients to capture the requirements and commitments. Moreover, the team produces the artifacts to make sure the details are recorded in documents. After all the requirements are confirmed, the team starts to develop the prototype. We schedule the activities in the Exploration phase, Valuation phase and Foundation phase in the 577a course. In the 577b course, the team implements the system. When the prototype is finished that team tests and transitions the system to the final live product.

Exploration phase

Duration: 09/12/2012- 10/03/2012

Concept: In the Exploration phase, we identify project concept, system requirements, and system architecture. Also, we discuss with the client about the details of the prototype.

Deliverables:

1. Client Interaction Report
2. Valuation Commitment Package

Milestone: Valuation Commitment Review

Strategy: One Incremental Commitment Cycle

Valuation phase

Duration: 10/04/2012- 11/05/2012

Concept: In the Valuation phase, team members paid a lot of effort to analyze system requirements and reconfirm the requirements with all critical-success stakeholders. Once all the requirements are confirmed and ready, the team starts to develop the prototype of system.

Deliverables:

1. Core Foundations Commitment Package,
2. Draft Foundations Commitment Package
3. Foundations Commitment Package

Milestone: Foundations Commitment Review

Strategy: Win-Win negotiation, confirm the requirements to develop prototype

Foundations phase

Duration: 11/06/2012- 12/10/2012

Concept: In the Foundation phase, the team follows the system requirements and commitments to develop the prototype that satisfies high priority functions of system. During the development, any problems that happen should be discussed with clients and stakeholders immediately. In addition, the team produces test and transition plans.

Deliverables:

1. Draft Development Commitment Package
2. Development Commitment Package

Milestone: Development Commitment Review

Strategy: Prototype development, weekly meeting

Rebaselined Foundations phase

Duration: 1/14/2013- 2/15/2013

Concept: The prototype has to be reviewed and rebaselined. The team members need to have a plan of avoiding risks and transition strategies.

Deliverables: Rebaselined Foundations Commitment Package

Milestone: Rebaselined Foundations Commitment Review

Strategy: Reassessment, weekly meeting

Development (construction iteration) phase

Duration: 2/16/2013- 4/13/2013

Concept: In the Development phase, the team implements the system following the iterations. Before testing and transiting, the potential risks should be analyzed and resolved.

Deliverables:

1. Transition Readiness Review Package
2. Draft Transition Readiness Review Package

Milestone: Transition Readiness Review

Strategy: Implementation, System analysis, weekly meeting

Development (transition iteration) phase

Duration: 4/14/2013- 5/3/2013

Concept: In the Development (transition iteration) phase, the system should be transitioned and installed successfully. Clients and stakeholders should be able to easily operate the system and have a training program for their employees.

Deliverables: Transition package, Operation Commitment Package

Milestone: Operation Commitment Review

Strategy: Transition, training, weekly meeting

2.2 Project Deliverables

This section shows all the artifacts required, deadline as well as format.

2.2.1 Exploration Phase

Table 1: Artifact deliverable in Exploration Phase

Artifact	Due date	Format	Medium
Client Interaction Report	9/19/2012	.doc, .pdf	Soft copy
Valuation Commitment Package <ul style="list-style-type: none"> • Operational Concept Description (OCD) Early Section • Life Cycle Plan (LCP) Early Section 	10/03/2012	.doc, .pdf	Soft copy

• Feasibility Evidence Description (FED) Early Section			
Project Effort Report	Every Monday	.text	Soft copy
Progress Report	Every Wednesday	.xls	Soft copy
Project Plan	Every Wednesday	.mpp	Soft copy

2.2.2 Valuation Phase

Table 2: Artifact deliverable in Valuation Phase

Artifact	Due date	Format	Medium
Core Foundations Commitment Package <ul style="list-style-type: none"> • Operational Concept Description (OCD) • Life Cycle Plan (LCP) • Feasibility Evidence Description (FED) • Prototype (PRO) • System and Software Architecture Description (SSAD) • Win Conditions Prioritization • Supporting Information Document (SID) 	10/15/2012	.doc, .pdf	Soft Copy
Draft Foundations Commitment Package <ul style="list-style-type: none"> • Operational Concept Description (OCD) • Life Cycle Plan (LCP) • Feasibility Evidence Description (FED) • Prototype (PRO) • System and Software Architecture Description (SSAD) • Win Conditions Prioritization • Supporting Information Document (SID) 	10/22/2012	.doc, .pdf	Soft Copy
Foundations Commitment Package <ul style="list-style-type: none"> • Operational Concept Description (OCD) • Life Cycle Plan (LCP) • Feasibility Evidence Description (FED) • Prototype (PRO) • System and Software Architecture Description (SSAD) • Win Conditions Prioritization • Supporting Information Document (SID) • Quality Management Plan (QMP) 	11/05/2012	.doc, .pdf	Soft copy
Project Effort Report	Every Monday	.text	Soft copy

Progress Report	Every Wednesday	.xls	Soft copy
Project Plan	Every Wednesday	.mpp	Soft copy

2.2.3 Foundations Phase

Table 3: Artifact deliverable in Foundations Phase

Artifact	Due date	Format	Medium
Draft Development Commitment Package <ul style="list-style-type: none"> • Operational Concept Description (OCD) • Life Cycle Plan (LCP) • Feasibility Evidence Description (FED) • Prototype (PRO) • System and Software Architecture Description (SSAD) • Win Conditions Prioritization • Supporting Information Document (SID) • Quality Management Plan (QMP) • Test Plan (TP) • Test Plan and Cases (TPC) 	11/26/2012	.doc, .pdf	Soft Copy
Development Commitment Package <ul style="list-style-type: none"> • Operational Concept Description (OCD) • Life Cycle Plan (LCP) • Feasibility Evidence Description (FED) • Prototype (PRO) • System and Software Architecture Description (SSAD) • Win Conditions Prioritization • Supporting Information Document (SID) • Quality Management Plan (QMP) • Test Plan (TP) • Test Plan and Cases (TPC) 	12/10/2012	.doc, .pdf	Soft Copy
Project Effort Report	Every Monday	.text	Soft copy
Progress Report	Every Wednesday	.xls	Soft copy
Project Plan	Every Wednesday	.mpp	Soft copy

2.2.4 Rebaselined Development Phase

Table 4: Artifact deliverable in Rebaselined Development Phase

Artifact	Due date	Format	Medium
Rebaselined Development Commitment Package <ul style="list-style-type: none"> • Operational Concept Description (OCD) • Life Cycle Plan (LCP) • Feasibility Evidence Description (FED) • Prototype (PRO) • System and Software Architecture Description (SSAD) • Win Conditions Prioritization • Supporting Information Document (SID) • Quality Management Plan (QMP) • Test Plan (TP) • Test Plan and Cases (TPC) • UML diagram 	02/20/2013	.doc, .pdf	Soft Copy
Progress Report	Every Wednesday	.xls	Soft copy
Project Plan	Every Wednesday	.mpp	Soft copy

2.2.5 Development Phase

Table 5: Artifact deliverable in Development Phase (construction)

Artifact	Due date	Format	Medium
Initial Operational Capability Package <ul style="list-style-type: none"> • Operational Concept Description (OCD) • Life Cycle Plan (LCP) • Feasibility Evidence Description (FED) • System and Software Architecture Description (SSAD) • Win Conditions Prioritization • Supporting Information Document (SID) • Quality Management Plan (QMP) • Test Plan and Cases (TPC) • Test Procedure and Results (TPR) • UML diagram • Iteration Assessment Report 	04/01/2013	.doc, .pdf	Soft copy
Core Capability Drive-Thru Report	04/10/2013	.doc, .pdf	Soft Copy

<ul style="list-style-type: none"> • CCD Report • Code Count Report • Code Count Output file • COCOMO II Estimation Uncertainty At CCD • COCOMO Report • Value-based Testing Procedure and Results 			
Project Effort Report	Every Monday	.text	Soft copy
Progress Report	Every Wednesday	.xls	Soft copy
Project Plan	Every Wednesday	.mpp	Soft copy

Table 6: Artifact deliverable in Development Phase (transition)

Artifact	Due date	Format	Medium
Transition Readiness Review Package <ul style="list-style-type: none"> • Transition Plan (TP) • User Manual (UM) • Support Plan (SP) • Training Materials (TM) • Regression Test Package (RTP) 	04/15/2013	.doc, .pdf	Soft Copy
Support and Transition Set Package	04/22/2013	.doc, .pdf	Soft Copy
Close Out Report	05/10/2013	.doc, .pdf	Soft Copy
Project Archive	05/04/2013	.zip	Soft Copy
Project Effort Report	Every Monday	.text	Soft copy
Progress Report	Every Wednesday	.xls	Soft copy
Project Plan	Every Wednesday	.mpp	Soft copy

3 Responsibilities

3.1 Project-specific stakeholder's responsibilities

The client and related success-critical stakeholder responsibilities involve regular Win-Win negotiation, project progress report, analyze potential risks, as well as project commitment review. The following table indicates all the stakeholders' responsibilities.

Table 6: Stakeholders' Roles and Responsibilities

Roles	Responsibilities
All stakeholders	<ul style="list-style-type: none"> • Participate in Win-Win negotiations and periodic meetings • Cooperate to develop and solve tasks • Test the prototype and advise through feedback • Abide by commitments
Client: Samta, president of United Directed Marketing	<ul style="list-style-type: none"> • Provide Marketing Analysis Information to customers • Track development progress and set up the priority of system development • Coordinate with designer and developer
UDM (United Directed Marketing) company	<ul style="list-style-type: none"> • Review and test the system then provide the appropriate feedback • Support system transition • Estimate the development budget to control the cost • Plan and implement the training program to employees • Maintain the system • Provide training to employees and users
Developer (team members) / Tester	<ul style="list-style-type: none"> • Collect win conditions and accurate requirements • Analyze current system and capture the system requirements • Design the system architecture • Build a complete operation environment to client • Develop and test the prototype satisfying system requirements • Support system transition • Identify the risks and solve them before entering the next phase • Produce the artifacts to meet the milestones • Provide training to client / UDM
Designer	<ul style="list-style-type: none"> • Design attractive User Interface

	<ul style="list-style-type: none"> Negotiate and discuss the details of project with client and developers
Customers/ Users	<ul style="list-style-type: none"> Provide feedback to the Samta and UDM Discuss the marketing products with Samta by using system

3.2 Responsibilities by Phase

The following table shows the responsibilities of each team member in each phase.

Table 7: Development team's Responsibilities in each phase

Team Member / Role	Primary / Secondary Responsibility					
	Exploration	Valuation	Foundations	Rebaselined Development Commitment	Development-Construction Iteration	Development-Transition Iteration
Chun-Ling Chen Project Manager (PM), Prototyper (PT),	PM: Detail Project Plan, Record Project Progress	PM: Plan and Manage Project PT: Analyze and Prioritize Capabilities to Prototype, Identify Objectives, Constraints and Priorities	PM: Plan and Manage Project PT: Analyze and Prioritize Capabilities to Prototype, Prototyping	None	None	None
Chun-Pei Su Lifecycle Planner (LCP), UML Modeler (UML), Trainer(TR)	LCP: Identify Responsibilities and Skills,	LCP: Estimate Project Effort and Schedule using COCOMO II, Identify Life Cycle Management Approach UML: Analyze Proposed System	LCP: Detail Project Plan UML: Build UML Model	Team Support Document maintainer	LCP: Assess Development Iteration Team Support	TR: provide training
Shao-yen Cheng System Architect (SA), UML Modeler (UML), Developer(D),	Team Support	SA: Analyze the Proposed System, Define Technology-Independent Architecture, Specify Architecture Styles, Patterns and	SA: Assess project status UML: Build UML Model	D: Develop Glue Code, Integrate Components, Fix Defects	D: Develop Glue Code, Integrate Components, Fix Defects	D: Transition The System

		Frameworks UML: Analyze Proposed System				
Yuan-Chang Chang Feasibility Analyst (FA), Tester(T)	FA: Assess and Plan to Mitigate Risks	FA: Explore Alternatives, Provide Project Feasibility Evidence, analyze business case	FA: Assess Feasibility Evidence, Assess and Plan to Mitigate Risks	None	None	None
Stewart Allen IIV&V (VV) , Quality Focal Point (QFP), Requirements Engineer (RE), Tester(T)	Team Support	VV: Plan and Manage Project, Verify and Validate Work Products RE: Assess requirements definition, Analyze the Proposed System	VV: Plan and Manage Project, Verify and Validate Work Products RE: Assess requirements definition	QFP: Identify Test Plan VV: Manage Project Quality	QFP: Identify Test Plan VV: Manage Project Quality T: Identify Test Plan, Identify Test Procedures, Perform Testing, Record Test Results	T: Test the system
Yen-Kuo Kao Operational Concept Engineer (OCE), Tester(T), Developer(D)	OCE: Analyze current system	OCE: Analyze the Proposed System, Explore Alternatives, Identify Objectives, Constraints and Priorities	OCE: Assess Operational Concept	None	None	None
Kevin Zhu Project Manager (PM), Developer(D)	None	None	None	D: Develop Glue Code, Integrate Components, Fix Defects PM: Plan and Manage Project	D: Develop Glue Code, Integrate Components, Fix Defects PM: Plan and Manage Project	D: Transition The System PM: Track Progress

3.3 Skills

The following table indicates the roles of team members and the skills in 577a. (Exploration Phase, Valuation Phase, Foundation Phase)

Table 8: Current and required Skills in 577a

Skills	
Current	Required
1. Produce formal and technical documents	1. PHP programming skill
2. Negotiation/communication skills	2. Database Management skill
3. C/C++/JAVA/HTML/CSS programming skills	3. User Interface design skill
4. UML modeling skills	4. Tracking defects and progress skill
5. Tool using skills (Bugzilla, COCOMO II, COTIPMO, FUEL and so on)	5. Coordinating resources skill

Table 9: Development team's Roles and Skills in 577a

Team members	Role	Skills
Chun-Ling Chen	Project Manager / Prototyper	<u>Current:</u> <ul style="list-style-type: none"> • Project Planning skill • Ability to organize and integrate resources • Client communication and negotiation skill • Project management skill • C/C++/HTML/CSS programming skill <u>Required:</u> <ul style="list-style-type: none"> • Presentation skill • Client communication and negotiation skill • PHP/JavaScript/Flash programming skill • Fuel/COCOMO II/COTIPMO tool using skill
Chun-Pei Su	Lifecycle Planner/ UML modeler	<u>Current:</u> <ul style="list-style-type: none"> • UML Modeling skill • Database design skill • MySQL skill • JAVA/C programming skill • COCOMOII, COTIMO tool using skill <u>Required:</u> <ul style="list-style-type: none"> • PHP/C++/Photoshop programming skill • Presentation skill • Project management skill • Fuel tool using skill
Shao-yen Cheng	System Architect/ UML modeler	<u>Current:</u> <ul style="list-style-type: none"> • UML Modeling skill • Providing specific system architecture process • Database design skill • PHP/C/C++/JAVA/JavaScript programming skill • MySQL skill

		<ul style="list-style-type: none"> • System analysis skill • Fuel tool using skill <u>Required:</u> <ul style="list-style-type: none"> • Flash/PHP programming skill • Presentation skill • Client communicating and negotiation skill • COCOMO II/COTIPMO tool using skill
Yuan-Chang Chang	Feasibility Analyst	<u>Current:</u> <ul style="list-style-type: none"> • C/C++/JAVA programming skill • SQL server setting skill • ROI calculation skill <u>Required:</u> <ul style="list-style-type: none"> • Project Planning skill • Presentation skill • Client communicating and negotiation skill • Project management skill • Fuel/COCOMO II/COTIPMO tool using skill
Stewart Allen	Quality Focal Point / IIV&V/Requirements Engineer	<u>Current:</u> <ul style="list-style-type: none"> • Balancing SCSs' mutual satisfaction • C/C++/JAVA programming skills • Quality Evaluation skills • Prioritize requirements • Ability to track defects and changes <u>Required:</u> <ul style="list-style-type: none"> • PHP/JavaScript programming skill • Presentation skill • Client communication and negotiation skill • Fuel/COCOMO II/COTIPMO tool using skill
Yen-Kuo Kao	Operational Concept Engineer	<u>Current:</u> <ul style="list-style-type: none"> • Ability to analyze the concept of the project • Analytical skills • Client communication and negotiation skills • PHP programming skills • Fuel tool using skill <u>Required:</u> <ul style="list-style-type: none"> • Presentation skill • Ability to organize and integrate resources • Client communication and negotiation skill • COCOMO II/COTIPMO tool using skill

The following table indicates the roles of team members and the skills in 577b. (Development Phase and Operation phase.)

Table 10: Development team's Roles and Skills in 577b

Team members	Role	Skills
Chun-Pei Su	Life Cycle Planner/Trainer/Document Maintainer	<ul style="list-style-type: none"> • PHP/JavaScript/Photoshop programming skills • Conflict management skills • Transit system skill • Fuel/COCOMO II/COTIPMO tool using skill
Kelvin Zhu	Project Manager / Developer	<ul style="list-style-type: none"> • UML Modeling • PHP programming skills • Ability to fix defects • Transit system skill • Fuel/COCOMO II/COTIPMO tool using skill • Communication skills
Shao-yen Cheng	UML modeler / Developer	<ul style="list-style-type: none"> • Communication skills • UML Modeling, syntax and rules • PHP programming skills • Bug tracking and removing skill • Fuel/COCOMO II/COTIPMO tool using skill
Stewart Allen	IIV&V / Tester	<ul style="list-style-type: none"> • Analytical skills • Communication skills • Analytical skills • Ability to transit the system • PHP programming skills • Fuel/COCOMO II/COTIPMO tool using skill

4 Approach

4.1 Monitoring and Control

Life-cycle-plan provides team members a specific project plan to schedule the development progress. During development, the team can be effectively monitored and controlled by recording artifacts such as progress reports, weekly effort reports, and the project plan. However, the ideal approach for the team is communication with each other. Communication plays an important part in the project development that assists team members in easily tracking the defects and reporting development progress.

4.1.1 Closed Loop Feedback Control

In order to track and understand the progress of project anytime and anywhere, team members communicate with client and stakeholders by using Facebook, emails, and Dropbox. Also, the team and client have weekly meetings to track and report the project progress, which builds concrete trust with each other.

4.1.2 Reviews

All of the artifacts are reviewed and corrected by each team member. IIV&V will track a bug report reflecting a defect to the author. The review iterations help team member understand the details of each artifact and then have a discussion to resolve bugs. After delivering final artifacts, the TA will review the artifacts and provide suggestions and comments.

4.2 Methods, Tools and Facilities

Table 11: Tools to be used in the project

Tools	Usage	Provider
WinBook	Identifying Win-Win Conditions and negotiating commitments to the client	USC
Trello	Record program model in the Win-win session	Trello
Join.me	Share screen to each team members and review the artifacts immediately	LogMeIn
Dropbox	Files save and share	Dropbox
Facebook	Communicate with team members and clients	Facebook
CSE Effort Reporting System	Individual effort records	USC
Email	One of the main tools of communication	USC/Google

Bugzilla	Report defect/errors/bugs	USC
Project Website	Documentation	USC
COCOMO II (version 2000.3)	Schedule, effort, feasibility estimation	USC
COTIPMO	Assess and estimate product accuracies and its timely delivery	USC
Fuel CMS	Providing a basic CMS framework to use to develop	Daylight Studio
Skype	Proving a conference platform for team/client meeting	Skype
Visual Paradigm	Create UML modeling diagrams	USC
Microsoft Project	Record weekly project plan	Microsoft Project

5. Resources

Our team use single NDI to develop UDM project and the COTIPMO estimation is for 12 weeks in the spring semester. Assuming 10 weeks will be spent on implementing system.

Estimated CSCI577b

Effort: 1 team members at 12 hrs. /week for 10 weeks

Total estimated effort: 1.09 PM (166 hours)

Budget information: \$2000

Project duration: 12 weeks

Component modules in your development project: Content Management System, Website Development

Programming language used: PHP, HTML, Javascript, MySQL

NDI Used: Fuel CMS, CodeIgniter

Table 12: Application count: Screens

Screen	Number of views	Number of source of data tables	Complexity level	Rationale
Home Page	1	1	Simple	Home page is basically and with login functionality.
Blog	2	2	Simple	Blog functionality is provided by COTS.
About us page	1	1	Simple	This page has simple text description to introduce who we are and what services we provide
Single source solution page	1	1	Simple	Static Page with information about 5P.
Contact information	1	1	Simple	This page provides contact information
Our work	1	1	Simple	This page has simple text description
Microsite	2	1	Medium	Microsite screen has
Administrator page	3	3	Medium	Administrator page provides basically edit functionalities
Service page	3	3	Medium	Service page contains business case review and microsite contents review

Table 13: Application count: Report

Report	Number of sections	Number of source of data tables	Complexity level	Rationale
User tracking	2	2	Simple	User tracking is provided by Fuel CMS
Marketing Analysis Pattern record	4-6	3-5	Medium	Record each customer corresponding to Marketing service like business analysis
Administrator recode	2	2-3	Simple	Administrator's behavior will be shown and record

Table 14: Application count: 3GL components

Component	Rationale
Form generator	This component will involve some Javascript and potentially PHP to develop.
Microsite customization	This component will use PHP to develop.

Table 15: Application Point Parameters

Parameter	Value	Rationale
Developer's Experience and Capability	High	75% developers have similar work experience in web site development.
ICASE Maturity and Capability	Nominal	Most of the development process is predictable and the developers are experienced.

Figure 1: COTIPMO Tool result

Description:	United Direct Marketing			
% Reuse:	35			
Developer's Experience and Capability	HI			
ICASE Maturity and Capability	NOM			
Productivity (PROD)	25			
New Application Point (NAP)	27.3			
Person-Months (PM)	1.09 (166 hrs)			
NDI/NCS Details:	Element Type	Simple	Medium	Difficult
	Screens	7	3	
	Reports	2	1	
	3GL Components			2

Figure 2: Iteration list and Project progress

Figure 1 shows the COTIPMO tools result. Given one developer is working 12 hours per week for 12 weeks, the team has an effort of 1.09 PM to devote to this project. Using COTIPMO, we were able to estimate the cost of the project to be 166 hours .

6. Iteration Plan

There are 3 iterations in the Development phase of the United Direct Marketing project.

- Construction iteration (1): 2/15/13-3/19/13
- Construction iteration (2): 3/20/13- 4/13/13
- Transition iteration: 4/14/13- 5/4/13

In the first construction iteration, the capabilities follow the priority orders to implement, which are “must have” requirements. At the end of this iteration t our team will show the system to the client and collect the feedback to advance the system.

In the second construction iteration, our team will implement the “should” and “could have” capabilities. After debugging and adjusting the system functionalities we will get ready for the main milestone Core Capability Drive-through.

The transition iteration is preparing our system to transit and test onto client’s server. In addition, plan a training program to train the client’s employee and maintainer.

6.1 Plan

6.1.1 Capabilities to be implemented

Table 16: Construction iteration capabilities to be implemented

Functionality ID	Description	Priority	Iteration
OC-1 Micro Website Generation	The system is capable of building a micro website so customers may see the proposal document and related marketing content from the webpage.	Must Have	1
OC-2 Related Projects Showcase module	The additional module is capable of posting related proposal content on the micro website.	Must Have	1
OC-3 Micro Website Administration	The backend system provides the ability to modify the webpage without help from a software developer.	Should Have	2
OC-4 Attaching documents	The module provides visitors the ability to search the contents on pdf and webpage.	Could Have	2
OC-5 Email Subscription	The module provides visitors the ability to subscribe to a periodic e-newsletter.	Should Have	2
OC-6 Encrypted Micro Website URL protection	The module censors the real URL, so only people with links from emails can access the site. Its main purpose is to prevent the	Must Have	1

	proposal from being leaked out.		
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6.1.2 Capabilities to be tested

Table 17: Construction iteration capabilities to be tested

Functionality ID	Description	Priority	Iteration
OC-1 Micro Website Generation	The system is capable of building micro websites so customers may see the proposal document and related marketing content from the webpage.	Must Have	1
OC-2 Related Projects Showcase module	The additional module is capable of posting related proposal content on the micro website.	Must Have	1
OC-3 Micro Website Administration	The backend system provides the ability to modify the webpage without help from a software developer.	Should Have	2
OC-4 Attaching documents	The module provides visitors the ability to search the contents on pdf and webpage.	Could Have	2
OC-5 Email Subscription	The module provides visitors the ability to subscribe to a periodic e-newsletter.	Should Have	2
OC-6 Encrypted Micro Website URL protection	The module censors the real URL, so only people with links from emails could access the site. Its main purpose is to prevent the proposal from being leaked out too easily.	Must Have	1

Table 18: Non-functionality capabilities to be tested

Functionality ID	Description	Priority	Iteration
LOS-1 Cross Browsers Support:	The system support different browser IE 8 and above, Firefox 4 and above, Chrome 16 and above	Must Have	1

6.1.3 Capabilities not to be tested

The project team will deliver all the functionalities for the UDM project in 24 weeks. All the functions implemented will be tested.

6.1.4 CCD Preparation Plans

For the Core Capability drive-through, there are related stakeholders will attend:

- Our Client: Samta
- Development team (team 9)

The CCD preparation plan:

- We will invite our client and tell her our system development progress. The details of functionalities will briefly be introduced to related stakeholders.
- The client as system administrator will be asked manipulates and operates system and then gives the feedback to the development team.
- The team should have a risk mitigation plan and avoid any kind of errors occurs during CCD activity.
- The client will be asked as a customer (user) to input information or search information from the system.

6.2 Iteration Assessment

6.2.1 Capabilities Implemented, Tested, and Results

Table 19: Capabilities implemented, tested, and results

Functionality ID	Description	% completed	%test
OC-1 Micro Website Generation	The system is capable of building micro websites so customers may see the proposal document and related marketing content from the webpage.	90%	80%
OC-2 Related Projects Showcase module	The additional module is capable of posting related proposal content on the micro website.	90%	80%
OC-3 Micro Website Administration	The backend system provides the ability to modify the webpage without help from a software developer.	85% - a few modifications required	90%
OC-4 Attaching documents	The module provides visitors the ability to search the contents on pdf and webpage.	95%	80%
OC-5 Email Subscription	The module provides visitors the ability to subscribe to a periodic e-newsletter.	95% - needs styling	95%
OC-6 Encrypted Micro Website URL protection	The module censors the real URL, so only people with links from emails could access the site. Its main purpose is to prevent the proposal from being leaked out too easily.	95%	95% - issues to address

6.2.2 Core Capabilities Drive-Through Results

The team got the feedback directly from client during CCD. There were some bugs and minor issues that had to be addressed before transit to client's server. In overall, client gave the system (team members) positive feedback and satisfied by the results. The below table shows the results of CCD and the comment was wrote by the client.

Table 20: CCD results

Functionality	Pass/Fail	Comment
1. Micro website generated	Pass	This team understood what I wanted and asked really good questions to ensure that the bases were covered
2. Related Module showcase	Pass	They created a scrolling showcase that looks great on the site, we just have to upload the rest of the jpg images and make sure they all work
3. Micro Website administration	Pass	They made it very user friendly and intuitive
4. Attaching documents	Pass	Very simple and intuitive
5. Email Subscription	Pass	The functionality worked, some work is needed on the back-end functionality – see comment below
6. Encrypted Micro Website URL protection	Pass	The unique URL is perfect for my needs.
7. Cross Browsers Support	Pass	<p>I need to do some additional testing, had a few bugs with i.e. that did not see in Chrome</p> <ul style="list-style-type: none"> ● The team has fixed the bugs after CCD, TRR ARB.

We collected the feedback and list the bugs/issues with priority level 1 to 5 to address:

Table 21: Bugs/Issues report and priority of addressing

Bugs/Issues (5 is immediately and 1 is not important)	Priority of addressing				
1.The random string – I didn't know what I was supposed to do with that field	1	2	3	4	5
2.There were a couple links that didn't connect but they seemed like minor things to fix	1	2	3	4	5
3.I needed clarification on the max # of characters that can be included in some fields – just a matter of adding the info to the manual	1	2	3	4	5

4.Email subscription – needs a little work to make the back-end database more user-friendly.	1	2	3	4	5
5.Need to do some testing in different browsers	1	2	3	4	5

Some of Issues such as #1 and #3 which belong User Manual clarification that should be easily to address. The team members and client have discussed the solution to solve bugs and related issues.

6.3 Adherence to Plan

The development team followed the schedule and successfully implemented the system. The system has already transited the website to client's server.