**Project Report**

**BizNamer**

**D10126532 John Warde DT230B**

**Table of Contents**

# 1. General Project Information

|  |  |
| --- | --- |
| Project Title: | BizNamer |
| Sponsoring Organisation: | Aranbay Technologies Limited |
| Sponsor Representative: | Mike Dury |
| Document prepared by: | John Warde |

## Terminology

The following terms and abbreviations are used throughout the project documentation, including Excel and Microsoft Project Files.

|  |  |
| --- | --- |
| **CSP** : | Cloud Service Provider |
| **OAuth** : | OAuth is an open standard for authorization, provides a process for end-users to authorize third-party access to their resources without sharing their credentials. In this product users can use their own email account to log into the web application service. |
| **SCM** | Source Code Management |

# 2. Project Stakeholders

The table on the following page lists the stakeholders in this project; it includes both direct and indirect stakeholders.

Of those on the development team, Nadia, Fergal, Carmel and Elaine will only work part-time on this project as they continue to be involved on other projects within Aranbay; Gary and Michael will work full-time for the majority of the technical implementation.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **BizNamer D10126532 John Warde DT230B Stakeholder Analysis** | | | | | | | | | | |
| **Group** | **Key Representative** | **Internal/ External** | **Priority (High/ Med/ Low)** | **Direct/ Indirect Involvement** | **Relationship with / Interest in project** | **Goals / Success Criteria** | **Impact on Project** | **What does the project need from this stakeholder?** | **Potential Issues or Concerns** | **Management Strategy / Method of Communication** |
| Project Team | John Warde | Internal | High | Direct | Project Owner, CTO | On time, to budget | Over-all control, Day-to-day management. Sprint Planning | Plans, Day-to-day management, tracking, remove blocking issues |  | Weekly Review meeting |
| Project Team | Mike Dury | Internal | High | Direct | Manager, CEO | Overall success. Feedback from Beta Customer | Requires weekly progress status | Approval. Funding. | Funding withdrawal due to economic circumstances | Weekly email progress report. Ad-hoc face-to-face demos. |
| Development Team | Gary Dolan | Internal | Med | Direct | Senior Software Engineer, Technical Lead | Accurate Requirements. Flexible design. | Software Design, Software Coding, Technical Team Direction. Involved in Sprint Planning | 1)Software Architecture Design  2)Object-orientated Coding |  | Weekly meeting to report progress/issues. Daily development team stand-up meeting - discuss sprint items & help each other. |
| Development Team | Michael McMorrow | Internal | Med | Direct | Software Engineer | Accurate Requirements / design | Software Coding | 1)Object-orientated Coding 2)Database Schema design | Most likely to be temporarily pulled to higher priority project | Daily development team stand-up meeting |
| Development Team | Fergal Browne | Internal | Med | Direct | Linux Cloud Infrastructure Engineer | Accurate Requirements / design | Set-up cloud infrastructure for test & production. Deployment scripts | Cloud Infrastructure, Deployment scripts, scalable set-up |  | Daily development team stand-up meeting |
| Development Team | Nadia Maloney | Internal | Med | Direct | User Interface Designer | User Interface Design / Accurate Requirements | User Interface Designer | HTML5 and iOS User Interface Design | Freelance, part-time, availability | Email, Skype, ad-hoc face to face |
| Development Team | Carmel Keegan | Internal | Med | Direct | iOS App Developer | Accurate Requirements / design | Fit for intended purpose testing. Sprint planning. | Test Plan document. Test automation scripts. |  | Daily development team stand-up meeting |
| Development Team | Elaine McLaughlin | Internal | Med | Direct | Test Automation Developer | Accurate Requirements | Test automation implementation. Sprint planning | Involved in Test Planning; Automated Test Developer |  | Daily development team stand-up meeting |
| Cloud Service provider | Antoine George | External | Low | Indirect | Cloud Infrastructure Account Support | Invoice payments for cloud service use | Minimal, unless cloud service operating poorly | Invoice Payments for usage | Poor cloud infrastructure performance | Ad Hoc, Infrastructure Performance/ Optimisation Review. Infrastructure Issue Resolution |
| Beta Customers | Chen Yu David Brand Alan Demerara | External | Med | Indirect | Beta Customer, Serial Entrepreneur | Product fit for intended purpose, ease of use | Provides Customer Feedback | Review Sprint 3 onwards | Non-availability | Review conducted over phone or face-to-face, review written up by Elaine McLaughlin |
| Enterprise Ireland | Claire Huberton | External | Med | Direct | Grant Funding | Funding requirements met | Minimal | Grant Funding | Meets funding requirements | Bi-monthly progress report |

# 3. Project Purpose

The purpose of this project is to design, implement and deliver a scalable on-line application product called BizNamer, plus a plan to support the day-to-day running of the product.

The purpose of the product, BizNamer, is to provide an on-line service to aid entrepreneurs and marketing departments in the process of choosing a business or brand name. This is done by integrating name space availability services (i.e. domain name, social media) and dictionary/thesaurus and other word generator services. The benefits to the end user are: allowing more focus on the creative process (in the naming of a business or brand) and reduction in time spent in managing the process. The success of the product will be determined by the ease of use of the website and mobile device user interface.

The business opportunity is to run this website with sponsored advertisements including advertisements for Aranbay’s own services. These ads will be aimed at the target market for this service product which includes but is not limited to accounting, business and technology services, technology products with some ads targeted at the business sector that the user is trying to set-up a brand for (can be determined by the words that are being typed into the service).

# 4. Project Overview

This project’s aim is to design, implement and deploy a web application solution into the cloud that meets the features/functionality of BizNamer as outlined above. The web application will be capable of scaling up and scaling back to meet the fluctuating demand from users.

A non-functional requirement of this project, is the ability of the app to reduce the time it takes to ***manage*** the creative process of coming up with a company or brand name. To this aim, Aranbay has enlisted the help of 3 Entrepreneurs as Beta Customers. These will provide feedback and an estimate of time saved. The user interface can potentially be adjusted to ergonomically improve the app as it moves through the sprint releases.

## 4.2. Scope

The project is due to start on 01/June/2013 and will be delivered by 06/12/2014. The budget for this project €52,523.

The project management team will use the PMBOK method to manage this project.

The software development and testing teams will use the existing software and frameworks within Aranbay Technologies and SCRUM methods for the agile software delivery process.

The target customers are business owners, company directors and marketing departments that spend time researching and deciding on a company, brand and product names.

The website service will initially contain keyword generated advertisements i.e. Google Ads, after a beta period of 3 months the marketing team will source targeted advertisements from organisations that support start-ups, brand awareness, etc. and more importantly advertisement space for Aranbay Technologies to promote our own web and mobile application development services.

The following is the list of technologies and tools that the development team will use to build and deploy the BizNamer product – these are chosen for the current competencies within the development team:

* Java 7
* Java Spring Framework
* Apache Maven
* Chef scripts (Chef is an automation platform that gives you the power and flexibility to rapidly provision and deploy servers to automate the delivery of applications and services – at any scale. <http://www.opscode.com/chef/>)
* Cloud Service Provider Amazon Web Service
* Git (Source Code Management)
* GitHub (securely managed SCM in the cloud)

After Sprint 3 the web application in the CSP test account is left running for 24 hours per day to allow the Beta and senior staff to provide feedback. The rates used for each account were calculated using Amazon Web Services cost calculator at <http://calculator.s3.amazonaws.com/calc5.html>:

|  |  |  |
| --- | --- | --- |
| **Item** | **Details** | **Cost** |
| CSP Test Account | 1 Small EC2 Linux Server 1 Small Amazon RDS (MySQL) database server  1 Load Balancer  1 IP address  60 GB of data-in, 40 GB of data out | 42.00 / month  0.05 / hour |
| CSP Production Account | 2 Medium EC2 Linux Server 1 Small Amazon RDS (MySQL) database server  1 Load Balancer  1 IP address  1000 GB of data-in, 100 GB of data out | 330 / month  0.50 / hour |

\* Note: values above are rounded.

## 4.3. Assumptions

1. BizNamer is a new product, there are no existing users to impact.
2. BizNamer is not a subscription service; the service will be supported initially by a linked Google Ad campaign/model and 3 months after production deployment, marketing will sell advertisements to interested parties. Version 2.0 will explore the possibility of having a subscription service to remove advertisements.
3. The revenue from the Ad campaign will eventually support the day-to-day running of the website. An assumption of 3 months is made to build up awareness of the service. Part of the budget will be used to cover this day-to-day running costs after the “go live” milestone.

## 4.4. Constraints

1. The revenue from the Ad campaign needs to meet or exceed the day-to-day costs of running the website service, after the end of the 3 month beta period.
2. Project costs must not exceed project budget unless sanctioned by project sponsor.
3. The Development team will be asked to stay within the allocated Cloud Service Provider cost estimates (in the project timeline) to keep project costs low.
4. The mobile device client for this app will only target tablet sized devices, as a reasonable amount of user interface space is required due to the nature of this application.

# 5. Project Requirements & Deliverables

The project manager requires the following in order to execute the project successfully and its deliverables:

* Technical advice, guidance and estimations from software engineers, developers, testers and designers to determine project plans.
* A commitment from the Test Lead to deliver automated tests that test software quality and adherence to requirements.
* A commitment from the technical lead to gather and consolidate requirements, deliver the software to requirements, verified by the automated tests from the test suite.
* A commitment from the project sponsor’s for funding and support, to effectively deliver the project’s product.
* A Service Level Agreement from the cloud service provider and defined action or re-imbursement plan.

The following is the list of product deliverables for this project:

* Graphical Web Page template designs for the look-and-feel of website and tablet sized mobile devices, the home page and the main page where the majority of the BizNamer functionality will reside.
* Software Architecture Design used to implement the business functionality and connection to external services and end-user client devices.
* Infrastructure design to support execution of the BizNamer product in production on a cloud service.
* Test Plan based on the scope and requirements of the product
* Software Implementation artefacts:
  + Source code
  + Database schema
  + Deployment scripts (for deploying on Cloud Service Provider)
  + Unit test code and automated test scripts

# 6. Project Management Milestones & Deliverables

### Project Milestones

* Project Initation Comlete
* Technical Design Documents Complete
* Release Sprint 1
* Release Sprint 2
* Release Sprint 3
* Release Sprint 4
* Release Sprint 5
* Release to Market (Go Live)
* Release Sprint 6
* Project Close

### Project Deliverables

* Project Overview
* Project Management Plan
* Project Organisation Chart
* Risk Register
* Work Breakdown structure for all tasks
* Project Timeline
* Project Communications plan.
* Project Closing Document detailing results, lessons learned etc.

## 6.1 Work Breakdown Structure

**1 Project Planning**

1.1 Project Charter Document

1.2 Project Management Plan

1.3 Project Initation Comlete

1.4 Project Review, Lessons Learned

**2 Technical Product Design**

2.1 Requirements Gathering

2.2 Software Architecture Design

2.3 Cloud Infrastructure Design

2.4 Test Plan Design

2.5 User Interface Design

2.6 Technical Design Documents Complete

**3 Technical Implementation**

**3.1 Sprint 1**

3.1.1 Sprint Plan

3.1.2 Implement Architecture Framework

3.1.3 Code Database Schema & Initial data

3.1.4 Integrate OAuth for Authentication

3.1.5 Login page & dummy landing page with basic user info

3.1.6 Develop automated tests for sprint

3.1.7 Develop Deployment Script for test Environment

3.1.8 Release Sprint

3.1.9 Sprint Review & Improve Process

**3.2 Sprint 2**

3.2.1 Sprint Plan

3.2.2 Implement Thesaurus Service Plugin

3.2.3 Code Main HTML5/jQuery page

3.2.4 Integrate Thesaurus Data with HTML/jQuery

3.2.5 iOS App: Login Page + Thesaurus Integration

3.2.6 Bug Fixes from previous sprint

3.2.7 Develop deployment script for production

3.2.8 Develop automated test for sprint

3.2.9 Release Sprint

3.2.10 Sprint Review & Improve Process

**3.3 Sprint 3**

3.3.1 Sprint Plan

3.3.2 Integrate SEO Ad Campaign Framework

3.3.3 Code Domain Name Availabity Module

3.3.4 iOS App: Integration with SEO, Domain Name availability

3.3.5 Bug Fixes from previous sprint

3.3.6 Develop automated test for sprint

3.3.7 Release Sprint

3.3.8 Sprint Review & Improve Process

**3.4 Sprint 4**

3.4.1 Sprint Plan

3.4.2 Code Social Real Estate Availability Module

3.4.3 iOS App: Social Real Estate Integration

3.4.4 Develop automated test for sprint

3.4.5 Bug Fixes from previous sprint

3.4.6 Release Sprint

3.4.7 Sprint Review & Improve Process

**3.5 Sprint 5**

3.5.1 Sprint Plan

3.5.2 Bug Fixes from previous sprint

3.5.3 Test scale-out (stress test)

3.5.4 Bug Fixing from scale-out testing

3.5.5 iOS App: Final Integration and bug fixing

3.5.6 Release Sprint

3.5.7 Sprint Review & Improve Process

**3.6 Release to Market (Go Live)**

**3.7 Sprint 6**

3.7.1 Sprint Plan

3.7.2 Post Live Bug Fixing

3.7.3 Release Sprint

3.7.4 Sprint Review & Improve Process

**4 On going Support & Maintenance**

4.1 Website monitoring

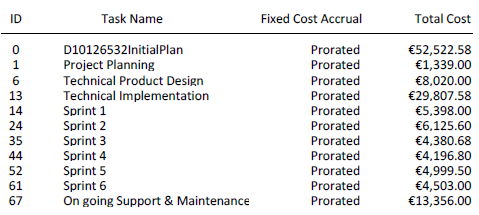
4.3 Bug fixing

4.4 iOS Bug Fixing & Releases

**5 Project Close**

# 7. Project Budget & Costs

The report below contains the project costs broken down by summary task, top line is the total projected cost.



The majority of costs are personnel, there are also costs to using the services of the cloud service provider. Other costs such as backup, Source Code Management etc. are not included in the project costs as these costs are companywide and not specific to this project.

# 8. Personnel & Other Resources

The following table is the list of Aranbay employees that will participate in the execution of the project and the level of their involvement. .

|  |  |  |
| --- | --- | --- |
| **Name** | **Position** | **Level on Involvement** |
| John Warde | CTO | Full-time |
| Mike Dury | CEO | Part-time |
| Gary Dolan | Senior Software Engineer | Full-time |
| Michael McMorrow | Software Engineer | Full-time |
| Fergal Browne | Linux Cloud Infrastructure Engineer | Part-time |
| Nadia Maloney | User Interface Designer | Part-time |
| Carmel Keegan | iOS App Developer | Part-time |
| Elaine McLaughlin | Test Automation Developer | Part-time |

There are also two cloud service provider accounts that developers will use when testing and running the web application in production. These have been set-up to invoice Aranbay on a monthly basis.

# 9. Project Risk Management Plan

All project products such as this document, other planning documents and all software code and configurations will be stored using the Git Source Code Management System in conjunction with GitHub to securely store project artefacts off-site in the cloud.

In the unlikely scenario that GitHub looses our SCM repository then the repository on any internal PC can be used to recover the Git repository due to the distributed nature of the Git SCM.

The IT department have a policy in place to always have at least 1 developer specification PC and 1 regular specification PC available for any failing PC workstation ghosted with installed developer and regular applications respectively.

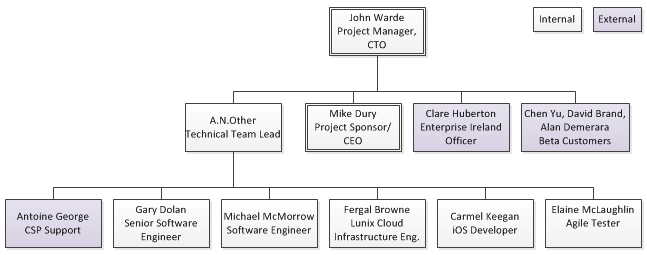
All database data will be backed up according to Aranbay’s existing and in-place backup strategies and execution plans.

The table on the following page lists risks and associated actions and consequences.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Rank** | **Risk** | **Description** | **Category** | **Root**  **Cause** | **Triggers** | **Potential**  **Responses** | **Risk**  **Owner** | **Probability %** | **Impact** |
| R1 | 2 | CSP Downtime | Cloud Service Provider downtime. This can be due to a DDOS attack (Distributed Denial Of Service) | External, technical | Various, usually DDOS | Up to 48 hours delay. | Fergal escalates issue to CSP Support; Development work continues on local PCs; | Fergal Browne | 5 | Test in production stops |
| R2 | 1 | Unavailability of key personnel | The project starts in the summer months at least one internal team member my take a week off. | Personnel | Unplanned holidays | Unknown | Re-assign employee outside of project. Ask other team members to pitch in. | John Warde | 5 | Depend on number of days taken off |
| R3 | 1 | Development PC crash | A developer’s PC workstation crashes | Technical | Various | Up to 2 hours delay | Request backup PC from IT dept. Clone SCM system. | Gary Dolan | 2 | Minimal |
| R4 | 3 | Unavailability of Beta Customers | As all beta customers are all busy professionals, they may not be able to fulfill their commitment to the project | Personnel | Various | Potential 1 day delay | We do not need all 3 reviews at each sprint release. | John Warde | 30 | Minimal, if at least 1 report is available per sprint |
| R5 | 2 | Downtime on our internet connection | Our connection to the internet goes down. ISP does have redundancy but this has gone down in the past | Technical | Various | Depends on timing | Developers can continue local coding as they have complete environment & local servers on individual PCs. | Fergal Browne | 5 | Depends on timing, has impact if during stress test on production. |

# 10. Project Organization

## 10.1. Project Organization Chart



## 10.2. Roles & Responsibilities

**Project Manager** (**John Warde**): Has over-all control of the project, is involved in all aspects of planning at the initiation stage and ultimately responsible for the success of the project.

**Project Sponsor** (**Mike Dury**): sponsor and providing part funding for the BizNamer project. The project idea is based on his experience in company start-ups and branding products. Mike will be interviewed in the requirements gathering phase of this project for his domain knowledge and may be part reviewing process for product releases when he is available.

**Development Team Lead** (**Gary Dolan**): Gary will lead the technical side of the project and is responsible for leading the requirements gathering and analysis, design and software architecture implementation. He will also author core modules in the implementation phase. Gary has lead several successful projects for Aranbay in the past.

**Software Engineer** (**Michael McMorrow**): will work alongside Gary and play an integral part of the project’s implementation, Michael has also worked with Aranbay for a number of years.

**Infrastructure Engineer** (**Fergal Browne**): will design, implement and maintain cloud infrastructure environment to support the test and production environment for this web application.

**User Interface Designer** (**Nadia Maloney**): has expertise in user interface design of the web application and mobile devices. Although Nadia won’t be involved throughout the project does play an important part in the ease-of-use of this application for busy professionals.

**iOS App Developer** (**Carmel Keegan**): Will take Nadia’s user interface design for the mobile app and realise it in a tablet sized mobile client for the iOS operating system.

**Test Automation Developer** (**Elaine McLaughlin**): Elaine will author the Test Plan in the planning phase and also implement and execute the automated tests. Elaine will also work with Fergal to test the deployment scripts.

**Cloud Infrastructure Account Support** (**Antoine George**): Fergal will liaise with Antoine to ensure that the cloud service is performing as expected and that the infrastructure design is optimised. The back-end developers will also consult with Antoine to optimise the software design.

**Beta Customers** (**Chen Yu, David Brand, Alan Demerara**): will provide feedback on sprint releases.

**Project Co-Sponsor** (**Claire Huberton**): Enterprise Ireland are also part-funding this project based on a research and development grant. Claire is the EI liaison officer and needs to be kept informed of progress.

## 10.3 Project Management Software

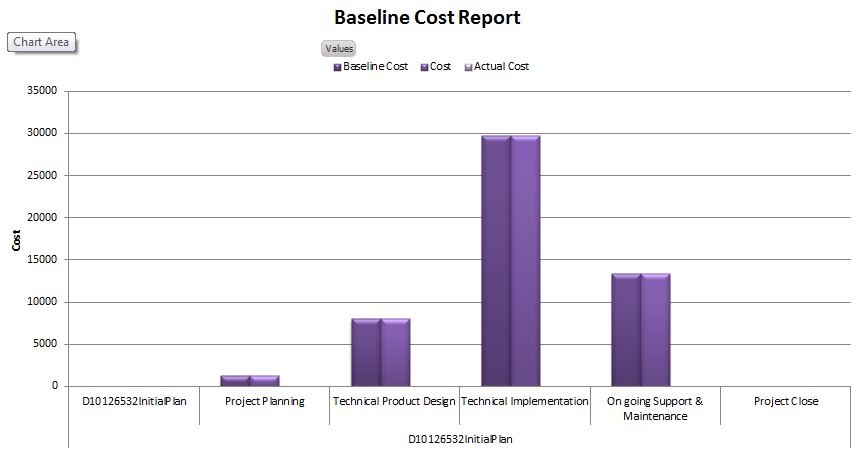
Microsoft Project 2007 will be used to build a project initial time-line and monitor progress. The technical team will use the existing SCRUM software to manage the software development process including reported defects.

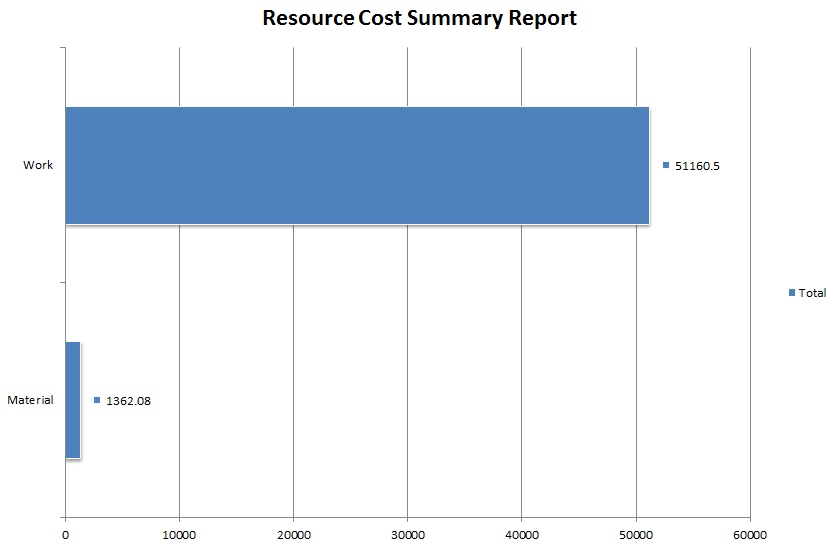
# 12. Other Information

None.

# 13. Initial Project Plan

As the technical team uses SCRUM management methods, the project plan follows the high level sprints of their software development life cycle plan. The project plan does not contain any of the detailed tasks that would be contained within each of the modules.





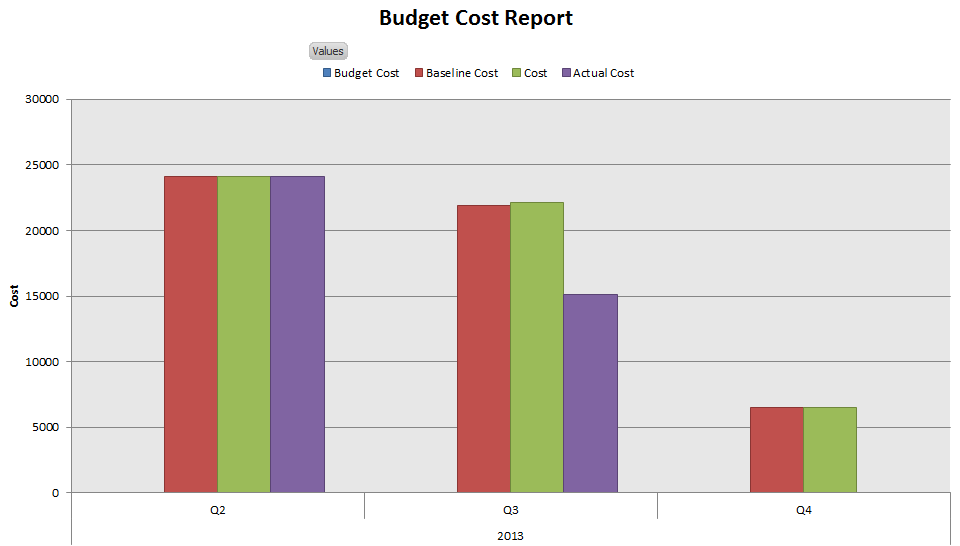
# 14. Adjusted Project Plan

Elaine McLaughlin decided to take a week’s holiday starting on 10/07/2013. Fergal who worked with Elaine in the early implementation stages was able to get up to speed on the running of automated tests, with some help from Michael McMorrow. However this impacted the schedule by adding one day to task 48 and impacts Michael, requiring him to work overtime slightly for 3 days.

The cloud service provider experienced a Distributed Denial of Service attack on 18/07/2013 which resulted in a service outage of 24 hours. This is reflected in task number 55 – the start date was delayed by 1 day.

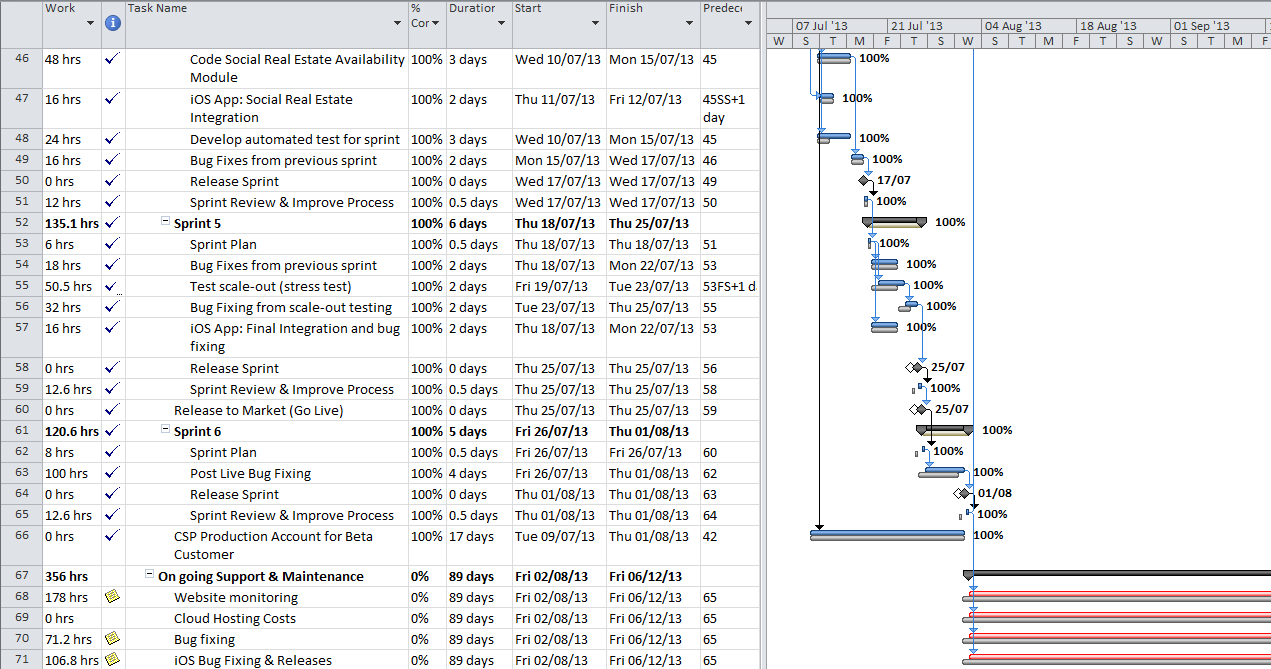
These exceptions (above) have delayed the “go live” date by one day, after consultation with the project sponsor agreed that this was an acceptable delay due the circumstances beyond Aranbay’s control, also agreed was to explore the potential of using more than one cloud service provider to ensure business continuity – to be discussed further at the “Project Review, Lessons Learned” task number 5.

The number of support days was reduced by 1 to keep to the project close date and reduce cost overrun.



The above chart shows Baseline Cost, Cost and Actual Cost for the three quarters that the project spans at a date of 01/08/2013 which is just before the 3 month beta period at sprint 6.

The snapshot of the timeline on the next page shows the slack in the tasks after the simulated situations described above.



The snapshot below is of the project statistics on 02/08/2013 which is just at the start of the 3 month beta support period after the final development sprint.

