HOME INVENTORY MANAGEMENT SYSTEM

STATEMENT OF WORK

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APPROVAL SHEET

PREPARED BY: _____

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APPROVED BY: _____

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Joe Blow, CEO Date

Contents

1.0 Introduction

1.1 Background

Thousands of homes are destroyed, damaged and burglarized each year. Most of these homeowners are not well prepared for dealing with their insurance agencies to replace their valuable possessions. The purpose of this project is to provide the general public with a useful and beneficial home inventory management system that will allow them to document their assets and take action if one is damaged, stolen, not working correctly or needs to be returned.

1.2 Technical Goals and Objectives

Our goal is to provide our potential users with a dynamic and responsive website paired with a mobile application for capturing home inventory pictures and details. The website will be the main portal for the users to browse their inventory, finalize the details of certain possessions and initiate insurance and warranty claims. The web and mobile applications should seamlessly communicate with each other to provide our users with up-to-date information on each page. Users will be able to email the claims departments of their insurance companies for damaged/stolen items or initiate a warranty claim. An application programming interface (API) will be developed and exposed for retailers to integrate with the system. Other functionality will include the ability to find a nearby location for the purchase of a replacement item or return of an item.

Our objectives are:

- A responsive website for managing home inventory, initiating insurance and warranty claims, finding retailers, and retailer integrations.
- A mobile application for iPhone, Android and Windows devices that provides the same functionality of the website with the ability to perform minimal actions so that the more difficult tasks do not have to be completed on the mobile device.
- Login management for users of the system with the ability for users to update their profile.
- A page to add addresses and locations within addresses which are tied to homeowners or renters insurance companies.
- A page to add, edit, and delete inventory pictures, details, links and attachment then link that item to a location under an address.

- Functionality to browse or search for specific items on a whole or by address.
- Ability to initiate an insurance or warranty claim by providing the item's details.
- Functionality to find nearby or online retailers to purchase a replacement item or return an item.
- Integrations for retailers to add an item to a user's account upon purchase.
- Auto Detection of the smart devices by the app when connected to the user's home network. So, if the device goes out of range of home network the user will receive an alert. User will also get an option to add a device to the inventory once it connected to home network.
- The website should be load-balanced across multiple locations nationwide.
- The database should be held at a centralized location with data guard to standby database at other locations.
- Ability to generate ad-hoc as well as batch reports.

1.3 Project Clients and End Users

The owner of this home inventory management system is the CEO of our mid-size web application development and hosting company. The end-users are residents and the general public in the U.S. region.

1.4 Responsibilities

Our functional analyst is responsible for giving the user requirements after doing a market research as well as working with the insurance companies to provide expert knowledge on what details of user inventory need to be captured and what needs to be provided when initiating insurance claims. Our IT analyst will manage the design and creation of all the various aspects of all the components needed to build the complete system. Project management will be responsible for managing the project and track the timeline, resources and costs of the project to ensure that the goals of management are met.

The server administrator will be responsible for obtaining and configuring the servers and software. The database administrator will be responsible for maintaining the database and establishing the data guard standby database. Our developers will be responsible for the development of the website, the APIs needed for integrations and the creation of the mobile applications. The developers will also create the code documentation. The QA testing team will be responsible for validating the developed

functionality to the requirements document and will create the user manuals. The project funding will come from internal corporate team.

1.5 Revision History

Version	Date Modified	Author	Reason for Change
1	9/13/2014	John Powers	Initial Document
1.1	9/19/2014	John Powers	Revised Business Requirements
1.2	9/27/2014	John Powers	Updated objectives, estimate and risks

2.0 Business Requirements

2.1 Project Deliverables

2.1.1 Technical Deliverables

- Software Requirements Specification
- System Design Specification
- Web-based Application
- Mobile Applications
- Application source codes
- Application Database
- Application Documentation

2.1.2 Non-Technical Deliverables

- Statement of Work (SOW) (this document)
- Software Development Plan (SDP)
- User Manual
- Test Plan
- Test Scripts

2.2 Other Project Activities

Regular project meetings need to be held with all stakeholders to understand the progress.
A prototype will be created, so as the users get a feel of the final product.

2.3 Project Standards

1. **ISO 21500:2012 -** Guidance on project management
   It provides high-level description of concepts and processes that are considered to form good practice in project management
2. **ISO 31000:2009 -** Risk management

3. **ISO 10006:2003 -** Quality management systems − Guidelines for quality management in projects
4. **ISO 10007:2003 -** Quality management systems − Guidelines for configuration management
5. **IEEE 802:** Local and Metropolitan Area Networks

2.4 Funding Source

The project funding will be coming from internal capital provided by the corporate team, since this is an in-house project. IS team will provide the budget to the developers, analysts, and administrators. The rest of the budget capital will go to the financial analyst, QA testers, and project manager from the company internal funding.

2.5 Project Conceptual Estimate

The estimated cost of the project is based on current date and location. The actual cost can be vary and is expected to be within +100% to -50% of the estimates. The cost only includes initiation of the very first version of the system, which does not include any additional costs from upgrades or routine operations. A more detailed conceptual level cost estimate worksheet is attached to the SOW in the appendix.

2.5.1 Project Size

Medium size involves approximately 4636 hours of effort.

2.5.2 Project Critical Computer Resources

A new server, database, software licensing and web hosting are required. Integration with online mapping will require licensing.

2.5.3 Project Effort and Duration

Based on the analysis of complexity of this new project, 4100 hours of effort is estimated and 5 months of duration is expected. More detailed breakdown of activities can be found in the cost estimate in the appendix.

Tasks	Hours
Construction	1730
Analysis	1384
Design	692
Formal Reviews	35
System Testing	692
Configuration Management	17
Project Management	87
Project Totals	**4636**

2.5.4 Personnel Resource Estimates

The following manpower resources are needed:

- Functional Analyst - 1
- Developers - 5
- QA Testers - 2
- IT Analyst - 1
- Server Administrator - 1
- Database Administrator - 1
- Project Manager -1

2.5.5 Project Cost

According to the current date and location, we are using an average of $50/hr for the developers and QA testers, and $55/hr for the functional analyst, IT analyst, administrators, and project management.

Title	Rate	Hours	Cost
Developer, QA Testers	$50	2,442	$121,100
Other Staff	$55	2,214	$121,770
Server & Database			$9,400
Total			$252,270

2.6 Schedule Requirements/Constraints

Other than the time estimates, the project is not dependent on other deliverables.

2.7 Resource Requirements/Constraints

The only resource restraints are associated with personnel and hardware required to complete the system. The project assumes the developers and the other personnel required are available for the project.

2.8 Project Assumptions and Alternatives

2.8.1 Assumptions

The basic assumptions made that impact the success of the project are the availability of critical personnel, and the funding continues to be present. All developers and testers have the necessary hardware and software to construct and test the website and applications.

2.8.2 Project Alternatives

The only alternative considered is to not do the project and do not pursue this new initiative. If management doesn't find enough business value then we can discontinue the project.

2.9 Risk

There are potential risks:

- **Loss of Funding:** This is mitigated by doing the project earlier in the year when budgets are set.
- **Misinformation (Scope Creep):** This is mitigated by adding additional functional analysts or bringing in insurance company representatives.
- **Unavailability of Personnel:** This is mitigated by making sure people working on the project are committed to work according to the schedule assigned to them.
- **Market Competition:** This is also mitigated by doing the project early before other competitors move into this market sector.

- **Non-adoption:** Users might be reluctant to use the app and is mitigated by performing market research and doing R&D for the project.
- **User-security:** This is mitigated by adding a 2 step security management system and user disclaimers.

3.0 Project Success Criteria

The client will deem the project successful if the Home Inventory Management System application is created according to the requirements specified within the time frames and the budget allocated.

4.0 Attachments

Attachment 1 – Cost Estimate
Attachment 2 - Project Score Sheet

Attachment 1 – Cost Estimate

Project Man-Power Summary Estimates by Phase		LOW	HIGH	MOST LIKELY
	Construction	**865**	**3460**	**1730**
	Analysis	**692**	**2768**	**1384**
	Design	**346**	**1384**	**692**
	Formal Reviews	**17**	**69**	**35**
	System Testing	**346**	**1384**	**692**
	Configuration Management	**9**	**35**	**17**
	Project Management	**43**	**173**	**87**
	Project Totals	**2318**	**9273**	**4636**

APPLICATION CONSTRUCTION					
Level of Complexity	**Description**		**Derived Man-Hours**		
			LOW	**HIGH**	**MOST LIKELY**
High	A mobile application for iPhone, Android and Windows devices that provides the same functionality of the website with the ability to perform minimal actions so that the more difficult tasks do not have to be completed on the mobile device.	1	300	1200	600
Medium	Login management for users of the system with the ability for users to update their profile.	1	50	200	100
Low	A page to add addresses and locations within addresses which are tied to homeowners or renters insurance companies.	1	40	160	80
Medium	A page to add, edit, and delete inventory pictures, details, links and attachment then link that item to a location under an address.	1	50	200	100
Medium	Functionality to browse or search for specific items on a whole or by address.	1	60	240	120
Medium	Ability to initiate an insurance or warranty claim by providing the item's details.	1	60	240	120
High	Functionality to find nearby or online retailers to purchase a replacement item or return an item.	1	75	300	150
Medium	Integrations for retailers to add an item to a user's account upon purchase.	1	30	120	60
High	Auto Detection of the smart appliances or RFID items by the app when connected to the user's home network. So, if the device goes out of range of home network the user will receive an alert.	1	100	400	200
Medium	Ability to generate ad-hoc as well as batch reports.	1	100	400	200
	Totals		**865**	**3460**	**1730**

APPLICATION ANALYSIS AND RELATED DOCUMENTATION EFFORT					
Effort value from construction	Application Analysis and Related Documentation Effort		Derived Man-Hours		
			LOW	HIGH	MOST LIKELY
	80% of total construction		692	2768	1384

APPLICATION DESIGN EFFORT ESTIMATION TABLE					
Effort value from construction	Application Design and Related Documentation Effort		Derived Man-Hours		
			LOW	HIGH	MOST LIKELY
	40 % of total construction		346	1384	692

FORMAL REVIEWS EFFORT ESTIMATION TABLE					
Effort value from construction	Formal Reviews (SQA, etc.) and related documentation effort		Derived Man-Hours		
			LOW	HIGH	MOST LIKELY
	2 % of total construction		17	69	35

SYSTEM TESTING EFFORT ESTIMATION TABLE					
Effort value from construction	System Testing and Related Documentation Effort		Derived Man-Hours		
			LOW	HIGH	MOST LIKELY
	40% of total construction		346	1384	692

CONFIGURATION MANAGEMENT EFFORT ESTIMATION TABLE					
Effort value from construction	Configuration Management and Related Documentation Effort		Derived Man-Hours		
			LOW	HIGH	MOST LIKELY
	1% of total construction		9	35	17

PROJECT MANAGEMENT EFFORT ESTIMATION TABLE					
Effort value from construction	Project Management and Related Documentation Effort		Derived Man-Hours		
			LOW	HIGH	MOST LIKELY
	5% of total construction		43.25	173	87

Attachment 2 – Project Score Sheet

IS Project Evaluation Score sheet

Home Inventory Management System

Prepared By: John Powers
Date: 9/22/2014

Category	Score	Comments/References*
Market Demand		
User Demand for System	4	Is there demand from the market for a home inventory management system
Smart Appliance/Device Usage	3	Are there many smart appliances/devices out there for the system to support
Features Support Demand	4	Does this application support all the features that users are requesting
Frequency of Feature Demand Change	3	How often does demand for new features change in this market
Competitive Applications	4	How many applications are out there that provide similar functionality that our system will compete against
Skills and Knowledge of Workforce		
Technical Skills	4	Are developers versed in the kinds of technologies required to build this system
Business Knowledge	3	Does our functional analyst understand the business requirements for designing this system
Availability of Require Workforce	5	When will the developers, analyst and support staff be available for this project
Other		
Management Support	5	Approved by management to which level
Business Obsolescence	5	When will the need for a home inventory system become obsolete
Technical Obsolescence	5	When will the technology being used become obsolete
Cost Benefit (Payback)	1	In how many years can we see profit on this system
Enhance Current Systems	0	Does this system provide an enhancement or benefit for any currently deployed systems
Request/Project Total	**46**	out of 65
Schedule Urgency		

Commitment Deadline	Date?	No committed date
Resource Constraint	Who?	No resource constraints
Potential External Sales Opportunity?	Y / N	Yes, possible potential for sale.

See NIS-WI-SPE-1 For Details

* Comments required (Schedule constraint and scores of 3 or more)

Managed via the NIS Strategic Plan.