**E-Guard Client**

**Software Development Plan and Team Guide**

**10/01/2013**

**By: Jaime Cedillo**

**Cassie Dusute**

**Jeff Klanderman**

**Lisa Snyder**

# 

# 

# 

# Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Change/Comments** |
| **0.0.1** | **10/1/2013** | CD, JC, JK, LS | **Initial revision** |
|  |  |  |  |

**Scope and Purpose**

The purpose of this document is to provide a plan for the development of the E-Guard Client. The plan outlines the structure of the team, risks of the project, the configuration management, and software test plan.

**Table of Contents**

Introduction…………………………………………………………………………………. 4

Key Terms………………………………………………………………………………….. 4

Team Responsibilities and Structure……………………………………………………. 5

Team Structure…...………………………………………………………………… 5

Team Members…………………………………………………………………….. 5

Team Responsibilities…………………………………………………………….. 5

Additional Responsibilities……………………………………………………….. 6

Risk Management…………………………………………………………………………. 7

Purpose……………………………………………………………………………... 7

Matrix………………………………………………………………………………... 7

Note…………………………………………………………………………………. 8

Configuration Management……………………………………………………………….. 9

Software Test Plan………………………………………………………………………… 12

**Introduction**

The E-Guard client application is a standalone software that can be run in Windows, Linux and Mac operating system and is part of an overall parental control software called E-Guard. E-Guard monitors, blocks and controls internet usage in real time.

## 

## Key terms

|  |  |
| --- | --- |
| CI | Configuration Item, any document that is considered a single entity. |
| SCMP | Software Configuration Management Plan (this document) |
| SPMP | Software Project Management Plan |
| STP | Software Test Plan |

## References

|  |  |
| --- | --- |
| SPMP | Software Project Management Plan, Rev xx, Date: xx-xx-xx |
| STP | Software Test Plan, Rev xx, Date: xx-xx-xx |
| RD | Requirements Document (Term Project.doc) |

**Team Responsibilities and Structure**

**Team Structure:** Democratic coding

**Team Members:**

|  |  |  |
| --- | --- | --- |
| Lisa Snyder | lisasnyd@umich.edu | 989-590-3498 |
| Jeffrey Klanderman | jeffkman@umich.edu | 616-802-7570 |
| Jaime Cedillo | jcedillo@umich.edu | 248-686-6274 |
| Cassandra Dusute | cdusute@umich.edu | 586-306-0391 |

**Team Responsibilities:**

|  |  |
| --- | --- |
| **Functionality** | **Team Member** |
| The monitoring function shall allow parents to check web activity, keystroke, chat, email, IM and launched application and send the log to the web team server in the real time. | Jeff |
| The client shall keep a local DB of unhealthy websites and synchronize the DB with the server team in a daily basis. | Cas |
| The client shall block unhealthy websites | Cas |
| The client shall remove unhealthy words from search engine | Lisa |
| Once a suspicious activity is identified, the client shall take snapshot of the screen and notify the web team’s server. The suspicious activities include trying to browse unhealthy websites, nasty words appear in email/chat/IM or typing blocked keywords in search engine. | Lisa |
| The client shall allow parents to configure the setting. The setting includes, blacklist, whitelist, blocked keyword, internet time control, categories to be blocked | Jaime |
| Only authorized users have access to the configuration and uninstall. | Jaime |

**Team Communication:**Each member will take turns hosting and recording meetings. The meetings will be through Skype.

**Additional Responsibilities**

|  |  |
| --- | --- |
| **Position** | **Team Member** |
| Project Management | Lisa Snyder |
| Requirement Management | Jeff Klanderman |
| Test Management | Lisa Snyder |
| Risk Management | Jeff Klanderman |
| Communication Management | Cassandra Dusute |
| Configuration Management | Jaime Cedillo |

**Risk Management**

**Purpose:**

The purpose of the risk management document is to identify the risks and create a mitigation plan to minimize both the chance and impact of the risk.

**Risk Matrix Table:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Risk Title** | **Type** | **%** | **Impact** | **Priority** | **Mitigation Plan** | **Assign** | **Target Date** |
| Security risk: handling private passwords and other information | Technical | 90 | 8 | 7.2 | Team will research encryption techniques to ensure sensitive data cannot be stolen | CD, JK | 10/22/13 |
| Time constraints: High Complexity & Short Deadline | Technical | 55 | 9 | 4.95 | Maintain online document with both short term and long term deadlines to ensure timeliness | CD, JC, JK, LS | 10/29/13 |
| OS problems: Will C# work on Linux or Mac? | Technical | 70 | 6 | 4.2 | Research options for non-windows Operating Systems | LS | 10/15/13 |
| New Technology: C# | Technical | 100 | 3 | 3 | Each team member will complete C# tutorials on MSDN | CD, JC, JK, LS | 10/22/13 |
| Job Related Conflicts | Project | 55 | 5 | 2.75 | Inform other team member of events that may conflict with project deadline | CD, JC, JK, LS | Cont. |
| Network problems: Client disconnects from internet or web server unreachable. | Technical | 45 | 6 | 2.7 | Research techniques for resending packets | JC | Cont. |
| Coordination of Information From Web Team | Project | 65 | 4 | 2.6 | Team representative will maintain weekly contact with web team representative and document discussion for the team | CD | Cont. |
| New Application Domain | Technical | 70 | 3 | 2.1 | Team will research strategies for developing desktop applications | CD, JC, JK, LS | Cont. |
| Legal Risk - Potentially logging sensitive information | Business | 35 | 6 | 2.1 | Research what information, if any, we are obligated to provide to the user | JK | 10/22/13 |
| Distance Between Team Members | Project | 100 | 2 | 2 | Schedule weekly meeting and additional mid-weekly meetings as necessary. Use collaborative web documents | CD, JC, JK, LS | Cont. |
| Testing Risk - Tester could accidently send personal information to web team. | Technical | 20 | 8 | 1.6 | Coordinate a purge logs feature with web team | LS | 11/5/13 |

**Notes:**

The team will assess the risks on a weekly basis to track and update the risk matrix table.

**Configuration Management**

# Introduction

## Purpose

The purpose of this document is to give guidelines and rules on the storage, layout and identification conventions of all documents that will be created in the course of the E-Guard Client Software Project.

## Scope

* List the specific documents which need to be written during the course of the project.
* Give naming conventions for these documents.
* Provide a structured way to create, store and update the documents.

# Management

## Organization

The roles directly involved in the configuration management are:

* Configuration Manager (CM)
* Team members

## Responsibilities

The Configuration Manager (CM) is mostly responsible for the technical part, such as the

maintenance of the repository and baseline creation. Both the CM and team members are responsible for keeping the documentation up-to-date and correct (e.g. code files without compilation errors). The CM may rename and move files that are incorrectly named or placed. However, the CM may not make significant changes to any project or design documents, and is mainly responsible for the naming and storing of these documents, not the actual contents. The CM is also responsible for making regular backups.

# Activities

## Configuration Identification

The Configuration Items (CIs) that will be written during the E-Guard Client project are:

* Requirements Document (RD)
* Requirement Analysis Document (RAD)
* Software Configuration Management Plan (SCMP)
* Software Project Management Plan (SPMP)
* Software Test Plan (STP)
* Code
* Minutes and agenda
* Test plans for Unit Test (UT), System Test (ST), Integration Test (IT)
* Miscellaneous

**Naming Conventions**

Document names are required to follow this naming scheme:

* Analysis, design and management documents should be named after their abbreviation (e.g. RAD\_RequirementAnalysisDocument.doc).
* Agenda should be named Agenda[MMDDYYYY], where YYYY should be replaced
* by the year, MM by the month and DD by the day the meeting is planned.
* For example the agenda for 13 October 2013 is called Agenda10132013.
* Minutes should be named Minutes[MMDDYYYY], which is analogous to the agenda.
* Source code file naming convention to be defined.

## Version tags

The version tags follow the format x.y.z, where

* x denotes the major version number
* y denotes the minor version number
* z denotes the revision (correction) number

## Policies for Changes

Change control meetings will be held to review proposed changes. Once a CI is internally approved by the team, the CM or the team member can put it in the project repository. If authors want to make changes to a document inside the repository, then that author has to update the revision history of the document as well, i.e. the revision number should still be changed by the author.

## Revision Control

The documents should have a Revision History table including version number, date, author and comments, such as:

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Change/Comments** |
| **X.Y.Z** | **Date** | **Author name** | **General Text including section number** |
|  |  |  |  |

**Schedule**

## Repository Backup

Every week a backup is made on the project repository. The backup allows team members to rollback to previous revisions of CI’s.

# 

# Resources

## Development Repository

A Client team repository is going to be used as the initial development repository containing the latest version of all CIs. The directory tree follows:

/client\_repository

/documents

/global

/management

/SCMP

/SPMP

/STP

/SVVP

/meetings

/team-meetings

/project-meetings

/Design

/Analysis

/RAD

/miscellaneous

/presentations

/source

## Tools

## We will look for a subversion-based repository system that will allow us all to share and work on code together. Our options include BitBucket and GitHub.

# Plan Maintenance

Whenever a team member needs to make any change to folder structure described in the Development Repository section or has a suggestion to manage better information for a specific procedure or activity; changes can be done to the standards given in this document. However, a procedure should be followed to prove they are convenient for the project. This process applies for any change that could be done over the folder structure, this includes addition of folders, deletion, name update, changes in the order or hierarchy within the directory, access requests, changes in any convention stated by this document or other Configuration Management related documents.

# 

# Software Test Plan

# Objective

The objective of the software test plan is to identify and document test cases that will be used to test the application against requirements and validate that the software meets the requirements.The software plan will also include test cases to test for defects. It will provide documented test schedules and outline test recording procedures, hardware/software requirements and constraints.

## Testing Process

### Requirements traceability

The testing process will include an initial review of all functions/features to ensure the test plan addresses all requirements. Team members will be assigned based on function/feature. Web team requirements will be required before the client team can complete its requirements.

**Tested Items**

Test cases will be created for each function/feature and a team member will be assigned to conduct each test case.

### Testing Schedule

A test plan will be created to outline the test plan timing and resource plan. It will also include required dates for “gets” from the web team.

### Test Recording Procedures

Test cases will be created in Excel and will include the Test Case ID, Test Case Name, Test Case Description, Tester Name, Test Date, Test Environment, Test Case Steps, Expected Outcome, Actual Outcome, Pass/Fail, Priority (Severe, Medium, Low), and Notes.

Each test case will be assigned an executor. As testing commences, the team will review the test results and reach a consensus on the Priority. This information will grouped by function/feature and will be used to direct software changes (Configuration Management).

### Hardware and Software Requirements

The Test cases will be documented in Excel and each team member will need Excel and an internet connection. The test cases will be stored in Google Docs, so the team has access to the information.

### Constraints

The testing is scheduled to begin on 11/6/2013 and must be completed before system demo scheduled for 12/12/2013. Other possible constraints are the deliverables required from the web team. The Client team may encounter a severe bug or missing requirement that may result in substantial changes to the software and may require additional testing.

**Test Cases**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ID** | **Function**  **Feature** | **Test Case Name** | **Test Case Description** | **Tester** | **Test**  **Date** | **Test**  **Environment** | **Test Case**  **Steps** | **Expected Outcome** | **Actual**  **Outcome** | **Pass/Fail** | **Priority**  **(Severe,**  **Medium,**  **Low)** | **Notes** |
| **1** | **1. Monitoring** | **Key Log User Input Email** | **Test the key log function to ensure user keystrokes are being logged from email application** | **Jeff** |  | **Windows** | **1.) Start client app**  **2.) Open email application**  **3.) Type an email**  **4.) Send test email**  **5.) Review key log file** | **Email content recorded in log** |  |  |  |  |
| **2** | **1. Monitoring** | **Key Log User Input Web** | **Test the key log function to ensure user keystrokes are being logged from browser** | **Jeff** |  | **Windows** | **1.) Launch browser**  **2.) Type nasty word in search engine**  **3.) Search for nasty word**  **4.) Review key log file** | **Web browswer search string recorded in log** |  |  |  |  |
| **3** | **1. Monitoring** |  |  |  |  |  |  |  |  |  |  |  |
| **4** | **2. Local DB Unhealthy website** |  |  |  |  |  |  |  |  |  |  |  |
| **5** | **2. Local DB Unhealthy website** |  |  |  |  |  |  |  |  |  |  |  |
| **6** | **3. Block Unhealthy websites** |  |  |  |  |  |  |  |  |  |  |  |
| **7** | **3. Block Unhealthy websites** |  |  |  |  |  |  |  |  |  |  |  |
| **8** | **4. Remove unhealthy words** |  |  |  |  |  |  |  |  |  |  |  |
| **9** | **5. Identify suspicious activity** |  |  |  |  |  |  |  |  |  |  |  |
| **10** | **5. Identify suspicious activity** |  |  |  |  |  |  |  |  |  |  |  |
| **11** | **5. Identify suspicious activity** |  |  |  |  |  |  |  |  |  |  |  |
| **12** | **6. Settings** |  |  |  |  |  |  |  |  |  |  |  |
| **13** | **6. Settings** |  |  |  |  |  |  |  |  |  |  |  |
| **14** | **7. Configure/Uninstall** |  |  |  |  |  |  |  |  |  |  |  |
| **15** | **7. Configure/Uninstall** |  |  |  |  |  |  |  |  |  |  |  |

