**Configuration Management Plan**

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**The Enterprise Transformation Platform**

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1. **Introduction**

This Software Configuration Management (SCM) Plan is used to establish the overall approach for the Configuration Management of the Instant-Edge Manage Operations project.

## **Purpose**

The purpose of this document is to identify and describe the overall policies and methods for the Configuration Management (CM) activities to be used during the System life cycle including Software Configuration Items. The primary intention of this CMP is to provide overall information on the Configuration Management policy and methods to be adopted and implemented for the Instant-Edge Manage Operations project.

## **Audience**

The intended readers of this Configuration Management Plan are:

The Project Team: To provide them with a plan for the activities and they can track and control their work products.

## **Document Structure**

**Section 2** presents the roles and responsibilities participating in the software configuration management.

**Section 3** describes the configuration management activities.

**Section 4** describes the identification of the configuration items.

**Section 5** describes the change control process and document control.

## **References**

To fully understand this document, the reader should also be familiar with the Instant Edge Quality Plan (reference ISS/IE/QP).

**2. ROLES & RESPONSIBILITIES.**

The purpose of this section is to identify the roles and responsibilities of individuals or groups that participate in the SCM process. The overall responsibility for configuration management resides with the SCM.

|  |  |  |
| --- | --- | --- |
| **NAME** | **ROLES** | **RESPONSIBILITIES** |
| Rameswari Mohanty | Project Manager (PM) | * Make sure team members are knowledgeable of SCM concepts and techniques and that they are applied to project activities. * Ensure compliance with the SCM standards and procedures set by the CM. * Establish the overall project schedule for SCM activities with Configuration Manager (CM). |
| Selvaraju Vignesh | Configuration Manager (CM) | * CM is responsible for maintaining the project filing structure. * He will also generate the monthly configuration reports. |
| Rameswari Mohanty, Mathias Behne, Sebastian Voss | Change Control Board (CCB) | * Responsible for approving the change requests raised by the customer or the project team members. |

# 

**3. CONFIGURTION MANAGEMENT ACTIVITIES**

Configuration management is a systems development discipline that promotes the proper identification of the configuration, control of changes, and records the change implementation status of the physical and functional characteristics of the Instant-Edge Manage Operations project.

Configuration management covers two basic essential interdependent activities:

1. **Configuration Identification** – Configuration identification is for the formal step of identifying the configuration of an item (i.e., name, location, version), and documenting its’ functional and physical characteristics.
2. **Configuration Control** – Configuration control is the exercising of established procedures to classify, approve or disapprove, implement, and confirm changes to the agreed upon specifications and baselines.
3. **Configuration Status Accounting –** The process of creating and organizing the information necessary for the performance of configuration management. An element of configuration management consisting of the recording and reporting of information needed to manage a configuration effectively. This information includes a listing of the approved configuration identification, the status of proposed changes to the configuration, and the implementation status of approved changes.

1. **CONFIGURATION IDENTIFICATION.**

Configuration identification consists of setting and maintaining baselines of each individual Configuration Item that define the Instant Edge Manage operations project at any point in time. This identification scheme will enable all project team members to locate each SCI quickly and easily.

## **4.1 Baseline Management**

The objective of establishing a baseline is to define a basis for further system life cycle process activity and allow reference to, control of, and traceability among configuration items and to requirements. It serves as the common reference that all system development activity is built on and dictates to the development team the changes that are to be implemented.

* Baselines shall be established for the configuration items. Developmental baselines will be established to aid in controlling the software development life cycle processes.
* A Production baseline shall be established upon implementation of the first phase of the Instant-Edge Manage Operations project. Further changes to the Production baseline require review and approval by the CCB.

Baselines are established in a system development effort to define a formal departure point for controlling future changes that affect performance or design. A baseline, once defined and approved, is placed under CM, after which any changes in the baseline should be formally documented and approved.

## **4.2 Configuration Items.**

The major configuration items identified for the Instant-Edge Manage Operations project is briefly as follows:

1. Project Plan.
2. Quality Plan
3. Configuration Management Plan
4. Risk Management Plan
5. User Requirements Specification
6. Use Case Model Survey
7. High Level Design
8. Prototype Study Report
9. Requirement Model Report
10. Design Model Report
11. Test plan

## **4.3 Configuration Item Identifier**

Configuration Item Identifiers are used to label all of the CIs that make up a particular grouping such as an application release, a project development phase or documentation changes. This identification scheme preserves all of the files that are used to create each release and exactly which versions of those files were used. Identifiers are used to label the documentation deliverables in a project. After the completion of the project, many of the deliverables will need to be updated to reflect changes to the application.

| Document Identifiers | Document CI description |
| --- | --- |
| PP | Project Plan |
| QP | Quality Plan |
| CM | Software Configuration Management Plan |
| RR | Risk Register |
| URS | User Requirements Specification |
| UCMS | Use Case Model Survey |
| HLD | High Level Design |
| PSR | Prototype Study Report |
| RM | Requirement Model Report |
| DMR | Design Model Report |
| UTP | Unit Test Plan |

## **4.4 Software Source and Documentation Storage**

Storage of the project software files will be the responsibility of the Configuration Manager. All source code will be maintained on SVN. All documentation pertaining to Instant-Edge Manage Operations and related software configuration management, user guides, software requirements, and related documents will also be maintained on NAS (Network Attached Storage) known as Synology.

## **4.5 Project File Directory Structure**

A standard hierarchical directory structure will be maintained for Instant-Edge Manage Operations project and related software to facilitate the development and maintenance of electronic documentation and software source code. All source and documentation is stored on SVN, which is accessible to all the team members.

The source code written in JAVA EE is stored in the /IE1A002/src directory. The /documents subdirectory stores the project management plan, requirements, design and management documents.

# **5. SOFTWARE CONFIGURATION CONTROL**

The process of evaluating, approving or disapproving, and managing changes to controlled items. This includes tracking the configuration of each of the CIs, approving a new configuration if necessary, and updating the baseline. This includes providing methods and procedures for the systematic proposal, justification, evaluation, coordination, and approval or disapproval of proposed changes to the Instant Edge Manage Operations project. Software Configuration Control includes the following objectives:

## **5.1 Change Control for documents**

Configuration Management is responsible for ensuring that the identification and change status of CIs is maintained at all times. To ensure this activity occurs, a configuration change control procedure has been created that tracks the reasons for a change, approval for change activity to begin, identification of impacts on schedule, and the identification and evaluation of the individual. The process flow for the change control process is as follows:

1. A change request can be raised by the project team members or the Customer using the form given in /Templates/ISS/Forms/Change Request Form.

2. Upon submission of the change request through a form, a formal analysis of the change request is carried out by the PM.

3. Based on the analysis the PM decides whether to approve the request or not.

3. Once the change request is approved adequate resources should be allocated to make the changes. In the case where a change request is rejected, the reasons should be documented and communicated back to the change requestor.

4. After the resources has been allocated, they proceed to make the corresponding changes.

5. Once the changes have been completed, it is being sent to the corresponding reviewer for review.

6. The reviewer reviews the changes made to the documents and suggest some improvements (if any).

7. Once the review comments (if any) have been incorporated by the author, it is sent to the approver for approval.

8. The approver reviews the document and if there are no changes approves the document else sends back to the author to make the changes.

9. Once the approver approves the document it is then baselined.

10. All internal correspondence generated by the above change procedure will be filed in Change Log (filed at /Logs/CHL).

## **5.2 Change Control for software source code**

Configuration Management is responsible for ensuring that the identification and change status of CIs is maintained at all times. To ensure this activity occurs, a configuration change control procedure has been created that tracks the reasons for a change, approval for change activity to begin, identification of impacts on schedule, and the identification and evaluation of the individual. The process flow for the change control process is as follows:

1. A change request can be raised by the project team members or the Customer using the form given in /Templates/ISS/Forms/Change Request Form.

2. Upon submission of the change request through a form, a formal analysis of the change request is carried out and is submitted to the CCB for approval.

3. Based on the analysis the CCB decides whether to approve the request or not.

3. Once the change request is approved adequate resources should be allocated to implement the change. In the case where a change request is rejected, the reasons should be documented and communicated back to the change requestor.

4. After the resources has been allocated, the implementation of change request should proceed.

5. All internal correspondence generated by the above change procedure will be filed in Change Log (filed at /Logs/CHL).

### 5.2.1 Submission of a change request

The form should be completed and submitted for analysis and approval. The completed change request forms should be submitted to the Project Manager. The Project Manager is responsible for organizing the analysis, approval and implementation of the changes.

### 5.2.2 Analyzing the Change Request

During the analysis of the change request, the DV along with TL determines what the cause of the change is, which units under CM control will require modification, how long the modifications will take, alternate solutions, if any. This data is entered on the Technical Evaluation section of the Change Request Form and then it is handed off to CCB for the approval.

### 5.2.3 Approval of the Change Request

Based on the analysis of the change request CCB must decide on one of the following options:

1. **Accept**: If the request is approved, then it is accepted for implementation.
2. **Reject**: If the change request is rejected, then the reason for rejecting the change must be documented and be communicated to the change requestor.
3. **Defer:** If the change request is deferred, then further analysis is required or the information provided by the requestor were inadequate or inaccurate.

### 5.2.4 Change Development

Once the change request has been approved the resources required to implement the changes are assigned. The assigned resources then start their work on implementing the changes.

### 5.2.5 Change Testing

Once the changes have been implemented it has to be tested in accordance with established acceptance test procedures. The CM is then informed on successful completion of the testing of the changes. The CM then reports to the management that the change process is completed.

### 5.2.6 Quality Records

As a result of this change request procedure, a change request form should be completed. It should give clear indication of whether the change request is Accepted, Rejected or Deferred. Accepted request should contain approval signature.

## **5.3 Documentation Control.**

For all the system and management deliverable documents defined in Quality Plan (filed at ISS/IE/QP), the following document control procedures will be applied:

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### 5.3.1 Document Format

All the documents should have a title page, a document control page, a table of contents, the actual content and a approval record page. If the document has been modified then it should also contain the revision history.

### 5.3.2 Naming Conventions

All the documents will follow the below naming conventions:

IE\_**<Name of the Document>** where,

<Name of the document> is the acronym for that document (e.g. **PP** for **Project Plan**)

Baselined documents will have the following naming conventions:

IE\_**<Name of the Document>\_<Major Revision No>**

Draft documents will have the following naming conventions:

IE\_**<Name of the Document>\_<Major Revision No>\_<Minor Revision No>**

After the draft document is reviewed and approved, it will be moved to the NAS as baselined.

When a document is amended it will be moved to the WIP folder in NAS and the version number of the document will be increased by 0.1 in case of minor amendments. For major amendments version number increases by 1. For example, version 1 would be changed to version 1.1(minor amendment) and to 2(major amendment). The title page will show the new version number and date of amendment.

Weekly Progress Reports, Minutes of the Meeting will have the following naming conventions:

MM**\_**Team 4FT**\_<dd\_mm\_yyyy>**

### 5.3.3 Reference Number

All the documents are identified by a reference number. The reference number are as follows:

ISS/IE /<**DI**>/v where,

DI – document identifier (refer section4.2)

v – Version number

### 5.3.4 Document Preparation

All the documents should be prepared as described in the following sub sections:

1. **Management:** The Quality manager and Project Manager has the overall responsibility for ensuring that the necessary documents are produced. This involves identifying the document that are required for the project and initiating their development. It also involves assigning team members to produce the document and monitoring and controlling the progress.
2. **Drafting:** The assigned team members are required to draft the required document according to the format defined in section 5.2.1. Each document will have a reference number and should be of the form specified in section 5.2.5.
3. **Review:** The completed draft document should be submitted to the relevant people for their review. Once the review is completed the necessary changes (if any) as mentioned by the reviewers has to be made to the documents by the respective person assigned for the document.
4. **Approval:** Once the changes mentioned by the reviewers has been completed, it has to be re - submitted for the review. In order to confirm that the document is approved by the approver, the approval record form should be filed. The approver can be chosen by the project manager from team members based on the expertise needed to approve the work product.

### 5.3.5 Quality Records

To provide evidence that the required reviews of the document were carried out peer review form for the document should be filed. All document should have a change history and completed document approval for each issued version.

**6.** **CONFIGURATION STATUS ACCOUNTING**

Configuration Status Accounting has the following objectives in this CM Plan:

* Maintain records of the configuration status of all entities that have been placed under configuration control at the project level or higher
* Produce reports that include the current version, revision, or release status of each CI, a record of changes to the CI since it was placed under configuration control (filed at /Logs/CL).