Software Engineering Process Group (SEPG) Plan

For Red Turf

Version 1.1

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**Revision History**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Version (x.y) | Date of Revision | Description of Change | Reason for Change | Affected Sections | Approved By |
| 1.1 | 10/10/18 | Baseline Version |  |  | Nagoor Inaganti |
|  |  |  |  |  |  |

**Approval History**

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| Version (x.y) | Prepared By | Reviewed By/Date | Approved By/Date |
| 1.1 | Sravanthi Yerramsetti | Nagoor Inaganti  10/10/2018 | Nagoor Inaganti  10/10/18 |
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Table of Contents

[1 Introduction 3](#_Toc381914025)

[1.1 SEPG Group 3](#_Toc381914026)

[1.2 SEPG Objectives 3](#_Toc381914028)

[1.3 Definitions & Acronyms 3](#_Toc381914029)

[2 SEPG Organization 3](#_Toc381914030)

[2.1 Team Structure 3](#_Toc381914031)

[2.2 Training Plan 4](#_Toc381914033)

[3 SEPG Activities 4](#_Toc381914034)

[3.1 Process Improvement 4](#_Toc381914038)

[3.2 Metrics Analysis and Reporting 4](#_Toc381914039)

[3.3 Facilitate Assessments and Audits 5](#_Toc381914040)

# Introduction

Improving the process of software systems development and maintenance is the most reliable way to improve the product quality. This document offers guidance on how to establish a software engineering process group and related software engineering process improvement functions. The process group works with line organizations to improve process quality by helping to assess current status, plan and implement improvements, and transfer technology to facilitate improvement in practice.

## SEPG Group

A Software Engineering Process Group (SEPG) is an organization's focal point for [software process](https://en.wikipedia.org/wiki/Software_process) improvement activities. These individuals perform assessments of organizational capability, develop plans to implement needed improvements, coordinate the implementation of those plans, and measure the effectiveness of these efforts. Successful SEPGs require specialized skills and knowledge of many areas outside traditional [software engineering](https://en.wikipedia.org/wiki/Software_engineering).

## SEPG Objectives

The following are the SEPG objectives:

Key Objective 1: Provide high quality services to our clients.

Key Objective 2: Continuous focus on employee satisfaction and competency development to reduce and stabilize employee attrition.

Key Objective 3: Continual improvement of services to our internal & external customers.

Key Objective 4: To secure its information assets and of its customers, Tanvi IT shall deploy procedures to maintain confidentiality, integrity and availability of all information assets.

Key Objective 5: To have year on year revenue increase while maintaining profitability

## Definitions & Acronyms

|  |  |
| --- | --- |
| PM | Project Manager |
| DM | Delivery Manager |
| PIN | Project Initiation Note |
| MOM | Minutes of Meeting |
| MOU | Memorandum of Understanding |
| SQA | Software Quality Analyst / Assurance |

# SEPG Organization

## Team Structure

|  |  |  |
| --- | --- | --- |
| S. No | Name | Role |
| 1 | Nagoor Inaganti | Project Manager |
| 2 | Gaurav Sachetee | Trainer |
| 3 | Pavan Kumar Pentela | Testing |
| 4 | Eswara Prasad Gatamaneni | Configuration Controller |
| 5 | Sravanthi Yerramsetti | Requirement Development |
| 6 | Monalisha Mishra | Requirement Management |
| 7 | Padma Nela | QA |

## 

## Training Plan

Training will be imparted to the practitioners on all the processes by the respective process champions. The details of the training shall be as given below:

| S. No. | Process Name | Training given by | Planned Training Date | Participant(s) |
| --- | --- | --- | --- | --- |
| 1. | Overview of CMMI, ISO 9001, ISO 27001 | QA Lead | As and when required | All Tanvi IT Employees |
| 2. | QMS Process Training | QA Lead | As and when required | All Tanvi IT Employees |
| 3 | ISMS Training | Process Owner | As and when required | All Tanvi IT Employees |
| 4 | ISMS Transition Training | Consultant | 15 Oct 2018 | QA Lead, PM, DL, MD, IT, HR, Sales, Testing Team |
| 5 | Six Sigma Training | Consultant | As and when required | PM, TL, QA |
|  |  |  |  |  |

All the training related artifacts shall be maintained as per the training process.

# SEPG Activities

## Process Improvement

* SEPG shall maintain PIL (Process Improvement log) for the suggested & recommended improvements.
* PIL will be reviewed in Management review meeting on regular basis.
* SEPG Team will provide PPM equation to Project Manger

## Metrics Analysis and Reporting

| **Business objective** | **Metric** | **Threshold Value** | **Remarks** |
| --- | --- | --- | --- |
| To provide high quality services to our clients. | Customer Satisfaction Index | Greater than or equal to 80% | Applicable for DEV Projects |
| Defect Removal Effectiveness | Greater than or equal to 80% | Applicable for DEV Projects |
| DD (QC Defect Density) | Less than .20/fp | Target will change after PPM is baselined. This is Threshold Value. Target for DD will be presented in project PMP with Std. Dev. after whatif, that will be done on Phase wise baseline PPM (regression Equation) |
| Delivered Defect Density | Less than .20/fp | Target will change after PPM is baselined. This is Threshold Value. Target for DDD will be presented in project PMP with Std. Dev. after whatif, that will be done on Phase wise baseline PPM (regression Equation) |
|  | Schedule Variance | Plus Minus 15% | Applicable for DEV Projects |
| Effort Variance | Plus Minus 10% | Target will change after PPM is baselined. This is Threshold Value. Target for EV will be presented in project PMP with Std. Dev. after whatif, that will be done on Phase wise baseline PPM (regression Equation) |
|  | QC Effectiveness | To Maximize Review Effectiveness >.4 | Target will change after PPM is baselined. This is Threshold Value. Target for QC Effectiveness will be presented in project PMP after whatif, that will be done on Phase wise baseline PPM (regression Equation) |
|  | CycleTime | To minimize CT | Target will change after PPM is baselined. This is Threshold Value. Target for DDD will be presented in project PMP after whatif, that will be done on Phase wise baseline PPM (regression Equation) |
| Continuous focus on employee satisfaction and competency development so as to reduce and stabilize employee attrition | Average Training Person Hours | 3-man days in a year | Applicable for Tanvi IT |
| Overall attrition rate | <15% in year | Applicable for Tanvi IT |
| Employee satisfaction survey score | greater than 72% | Applicable for Tanvi IT |
| Continual improvement of services to our internal & external customers | Key process performance improvement | at least 5% per annum | Applicable for Tanvi IT |
| To secure its information assets and of its customers | Number of security incidents of high severity | Less than 5% of total security incidents | Applicable for Tanvi IT |
| To have year on year revenue increase while maintaining profitability | Revenue growth | To be >=20% with respect to the previous financial year | Applicable for Tanvi IT |
| Profit before Tax | to be >=5% with respect to the previous financial year | Applicable for Tanvi IT |

## Facilitate Assessments and Audits

In order to ensure that approved processes are being implemented, internal process audits will be conducted by the QA Group in coordination with Project Managers. The schedule for internal process audits will be developed by the QA Group using the Project Plans as the input. A separate audit schedule will be maintained on regular basis.

| **Sr. No.** | **Type of Audit** | **Frequency for Projects** | **Frequency for Support Functions** |
| --- | --- | --- | --- |
| 1. | Process Audit | Every 4 months | Every 6 months |
| 2. | Configuration Audit | Every 4 months | Every 6 months |
| 3. | Product Audit | Every 4**\*** months | Every 6 months |
| 4. | ISMS Audit | Every 4 months |  |
| 5. | VAPT Schedule |  | 1 year |

Configuration Audit will be carried out with process audit.

\* – Projects of less than 4 months duration will be audited once prior to User Acceptance Testing or as per PMP defined.