**MINISTRY OF EDUCATION AND TRAINING**

**FPT UNIVERSITY**

Capstone Project Document

**Ticket Management System for an IT service provider**

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| **Capstone Project code** | TMS |

-Ho Chi Minh City, ***ngày 5 tháng 9 năm 2016***-

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**Definitions, Acronyms, and Abbreviations**

|  |  |
| --- | --- |
| ***Name*** | ***Definition*** |
| Ticket Management System | TMS |
| Information System | IT |
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# Report No. 1 Introduction

## Project Information

* Project name: Ticket Management System
* Project Code: TMS
* Product Type: Web application
* Start Date: 05/09/2016
* End Date: 05/12/2016

## Introduction

Currently, the IT service providers often face with receiving a large amounts of requests and notices about the problems from customers. The handling process by handwork spend a lot of time, effort and cost of the company and also customer.

In this document, we proposed a solution that help staff of IT service providers to support customer effectively. Our system using ticket to store vital information of request from customer via email, phone, etc. Hence, evaluating the priority index and assign ticket to technician of technical departments to resolve the request. Besides, system also has some tools that help staff to find the solutions of common problems quickly and directly support customers without through technicians.

This document also describes our working process in nearly 4 months includes our perspective in the system, component designs and detailed core workflows. We hope the system and our solution will help to resolve the problems for IT service providers in Vietnam and other developed countries.

## Current Situation

Operators or staff receiving a call or query from a user would fill out a small card with the user's details and a brief summary of the request and place it into a position (usually the last) in a column of pending slots for an appropriate technician, so determining the staff member who would deal with the query and the priority of the request.

## Problem Definition

Below are disadvantages of current situation:

* Spending much time and cost of both customers and company: staff have to note on a card while receiving customer’s phone and distribute it to appreciate technician without any assistance tool.
* Handling speed is not good: the request are transferred by a lot of intermediate handwork step.
* The requests are unconnected: the requests may be are emails, phones or cards, so we cannot collect and manage them for querying or tracking in the future.

## Proposed Solution

Our proposed solution is to build an ticket management system named “TMS” to resolve the current situations and help IT service providers enhance their respond request speed, we also design the system to be scalable so we can deploy this system to a multiple IT services provider company in future plan. TMS system includes a web application with following functions.

### Feature functions

#### Web application:

* Create ticket:

There are three ways that a ticket was created. The first way: customer can create a new ticket which contains all information about the problem they face with on website using TMS System. The second way: when customer sends an email to company, it can be converted to ticket automatically. The third: staff receives information about the request via phone or directly from customer, they will note and create ticket on TMS.

* Auto dispatch ticket :

The system will base on the built preset rule (can be customized) and assign the ticket to an appropriate technician who have ability to resolve the request or basically set some information of that ticket by triggers.

* Knowledge base:

Knowledge base, by being built up day by day, is the place for referring commonly request and its own solution. Which will help users and technical staff to resolves issues quickly.

### Advantages and disadvantages

**Advantages:**

* + The interaction between the customer and the staff: the customer now easier to create request through the website when each customer has an account.
  + Auto assign technician to resolve the request: the system can assign ticket to appreciate technician automatically. It will cut off a lot of time and cost for dispatching manually.
  + Keep track of solving request process: the ticket has its own status and all information so we can follow it when needing.
* Search for the common problems: the staff can give customer solution directly by using knowledge base referring feature.
* Create report: staff can create report easily to support business.
* Save all solving/solved tickets: It can help companies to tracking, assessing support team performance, understanding customers’ common problems, tracking individual customer’s problems by the time using their service.

**Disadvantages:**

* The system cannot support business 100%, still need to handle by natural ways such as calling.
* The system requires staff have some IT skills and understand about the system.

## Functional Requirements

Function requirements of the system are listed as below:

* Customer component:
  + View sent tickets
  + Create ticket
  + Search tickets
  + Search knowledge base
* Staff component
  + View ticket info
  + Search tickets
  + Create ticket
  + Change ticket status
  + Assign ticket
  + Solve ticket
  + Merge tickets
  + Reopen ticket
  + Cancel ticket
  + Manage knowledge base
* Technician component
  + View assigned ticket
  + Solve ticket
  + Query knowledge base
* Admin component
  + Manage users
  + Manage report
  + Manage business rule
  + Manage system configure item
  + View statistics

## Role and Responsibility

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
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*Table 1: Roles and Responsibilities*