HELP DESK SYSTEM

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ABSTRACT

Essentially, the Help Desk is a central point which problem or issues are reported and subsequently managed or coordinated. The role of the Help Desk System is providing support for employees within an organization, where the system can give solution the problem are reported as soon as possible. Help Desk System was developed to provide technical information to users and solves technical problem by providing support and information. This system was developed based on observations of current mobile technology growing. With web based and web mobile Help Desk System, organization can access information at anytime and anywhere. In order to finish this project, System Development Life Cycle (SDLC) method has been adopted in developing this project. System Development Life Cycle (SDLC) has been chosen because the system had to be developed in short period of time. Help Desk System has been developed by using Aptana Studio for the interface and PHP (Hypertext Preprocessors) for scripting language and Adobe Dreamweaver 5.5 and mobile jquery for developed the web mobile section.

ABSTRACT

Pada asasnya, *Help Desk System* adalah pusat dimana semua masalah atau isu-isu yang dilaporkan akan diuruskan atau diselaraskan. Peranan *Help Desk System* ialah memberi sokongan melalui juruteknik dalam sesebuah organisasi, di mana sistem boleh memberi penyelesaian masalah dilaporkan secepat mungkin. *Help Desk System* telah dibangunkan untuk menyediakan maklumat teknikal kepada pengguna dan menyelesaikan masalah teknikal dengan menyediakan sokongan dan maklumat yang diperlukan. Sistem ini juga telah dibangunkan berdasarkan perkembangan teknologi telefon mudah alih. Dengan berasaskan web dan mobile web, pengguna-pengguna dalam sesebuah organisasi boleh mengakses maklumat pada bila-bila masa dan di mana-mana sahaja. Bagi menyiapkan projek ini, kaedah *System Development Life Cycle* (SDLC) telah aplikasikan dalam membangunkan projek ini . *System Development Life Cycle* (SDLC) telah dipilih kerana sistem ini perlu dibangunkan dalam jangka masa yang pendek. *Help Desk System* telah dibangunkan dengan menggunakan *Aptana Studio* untuk penyediaan antara muka (*interface*) dan and PHP (*Hypertext Preprocessors*) untuk skrip penyediaan enjin sistem dan *Adobe Dreamweaver 5.5* dan *mobile jquery* untuk penyediaan mobile web.

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LIST OF SYMBOLS

UMP	-	Universiti Malaysia Pahang
PHP	-	Hypertext Preprocessor
MYSQL	-	Open Source SQL database management system
SDLC	-	Software Development Life Cycle
SMS	-	Short Message Service
FAQ	-	Frequently Asked Question
PTML	-	Pusat Teknologi Maklumat & Komunikasi

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CHAPTER 1

INTRODUCTION

1.0 Introduction

Help Desk are now a needed and one of a core part for good service and operation. Essentially, the Help Desk is a central point which problem or issues are reported and subsequently managed or coordinated. From a wider prospective, it is a main part for service function which is collected multiple resources to solve a problem.

A Help Desk System allows an organization or helpdesk center to track the problems that users are having. The role of the Help Desk System is providing support for employees within an organization, where the system can give solution the problem are reported as soon as possible.

The Help Desk System is developed to help the organization effectively communicate, organized, track and report issues. With web based Help Desk System, organization can access information at anytime and anywhere.

Nowadays, a lot of company still depends on traditional help desk. This system encourages users to fill method in a form to report their problem. Besides, some help desk system allows users to log report through phone call or by sending an e-mail to help desk

center. After identified the problem reported, head technician will distributed the task to technicians manually. When the problem solved, the technician will prepared a report and keep on a file for future references if the problem happen again. If the user did not make any complaint after problem solved, help desk center will assume the problem has been settled.

1.1 Problem Statement

The problems which organizations or helpdesk center encounter today include:

i. Filing method still used to store users information.
ii. The job assignment is assigned to technicians manually by the administrator or head of technician when users log complaints or problems.
iii. The users log complaints or problems to the technician's support or helpdesk center by makes phone call, e-mail or go to the center individually.

1.2 Objective

The project objectives are to solve the problems of the existing system. The system can benefit the users that can be staff or customers, the administrator and the technician. The system to be developed can lessen the burden of the administrator to do job assignment. While the user now can log complaints, problem or assist for assistance not only by phone call and e-mails, but also via the website.

This project is developed to achieve the following objectives:

i. Provide a Help Desk System application which can supply an effective communicate, organize, track and report issues to improve the current system.
ii. Allow administrator to maintain, manage, access and view reports for all the problems.

iii. Allow the users to rises complaints, problem or assist for assistance easily via website and mobile.

1.3 Scope

The scopes of the project are to achieve the objectives of the project. Help Desk System is a web enabled Help Desk Management System, where users can access via network.

The specific users for this system are:

i. User
   - User can be staff or customer that log report or complaint the problem.

ii. Head Technician or Administrator
   - Person in charge as an administrator which can view all the report and progress of the solution that have been done.

iii. Technician
   - Person that responsible to give the solution or settle the problem reported.

The modules that will be include and enhanced in the Help Desk System are:

i. User module
   - User can check the frequently asked question (FAQ) knowledge base to check their problem has been reported or not.
   - User can send or report their problem through their mobile or web-based application.
   - User will get the solution or status of their problem through their SMS.

ii. Technician module

- Technician will get list of their task in an inbox.
- Technician will receive a notification for new task through short message service (SMS) or message that will be sending by the system.
- Technician can update the status of the problem through mobile or web.

iii. System module

- It has FAQ knowledge base for users check the previous problem has been reported.
- It has a form for users log their problem.
- System has ability to distribute the task to the technician after problem has been logged.
- Head technician can view all the problem reported, current status of the problem and generate report for each problem.
- System will send SMS for new task assigned to the technician.
- SMS will be generated to user after problem has been solved.

1.4 Organization of the Project

This thesis consists of six (6) chapters. Chapter 1 discusses on the introduction of the system. The purpose of this chapter is to briefly explain about the overview system that is developed. It consists of the problem statement, objective and scope.

Chapter 2 is Literature review. It is explained about the project and techniques that are used from previous projects.

Chapter 3 is the methodology used in the system. This chapter is discussed about the techniques and related software that is used for the project development which is Systems Development Life Cycle (SDLC).

Chapter 4 is the implementation of the system. It explains about the implementation of the system.

Chapter 5 is the result and discussion. This chapter explains briefly about the results and data analysis that obtained from the application. The contents included in this chapter are result analysis, project constraints and also recommendations.

Lastly, Chapter 6, the conclusion concludes and come out with a summary about the developed project.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

Literature review is process which is include of searching, collecting, and analyzing and prepare conclusion from all debates and issues raised in relevant body of literature that implies of make use of other people work that related to the topic of the project. These review that can be books, journals, technical reports, proceeding conferences, anonymous references, publication of international bodies or agencies and also web pages or e-book that contain the topic that been studied. The review will help in making comparison and interpret the project that is done.

The resources on the topic of helpdesk system have been widely published. Every huge company in the world wide needing this system to be help the company run in the smooth way. Generally the helpdesk system is familiar in the industry. The several existing system will be reviewed and compared. The information collection for the literature review on helpdesk system is from many resources, which are in e-book and published documentation such as whitepaper and journal in web site.

The helpdesk is characterized by the following properties. Helpdesk fulfils the support functions for its customer. The helpdesk customers are people that use the support of a helpdesk. Subject of support is product and services. Helpdesk serves as a central single point of contact for question and problem reports. Helpdesk are solution oriented. The purpose is the efficient and effective answer of questions or solution of problems. Decentralized the helpdesk can be distributed transparently over several locations from user's perspective. [1]

The helpdesk is created to protect the developers from excessive interruption by the users. However the helpdesk has limited knowledge and passes the majority of its queries on to the developers. [1]

Based on the studies on whitepaper written by Andrew (2001), an effective helpdesk application should be included the powerful scripting and scheduling suite to provide effective unattended reporting and diagnostics. From the statement we realize that how important is a helpdesk ticketing system if that helpdesk ticketing system can produce a reliable report and will be in the scheduled period.

2.1 Existing System

There was some existing software or projects in market which is quite similar to the project that wants to be developed. Research and review was carried out to get more detailed and information of the project which will be developed.

2.1.1 Web Help Desk

From the study made, the Web Help Desk features allow administrators, technicians, and users to utilize the application with only a web browser. User can access with remote access from any with an internet connection and a web browser, which is all platform supported.

The Web Help Desk software included with intelligent business logic to select the technical support for each new service request ticket. Factors that applied in the decision logic include submitter (users) and technician's location, submitter and technicians department, skill-set of technicians or category of ticket, technician's work schedule and availability and work load balancing for technicians. Based on the request ticket category, Web Help Desk identifies the appropriate group of customer support staff. Auto-assignment can be used in the Web Help Desk at the following levels such as a specific technician, group manager (for manual assignment), head technician (for manual assignment) and none.

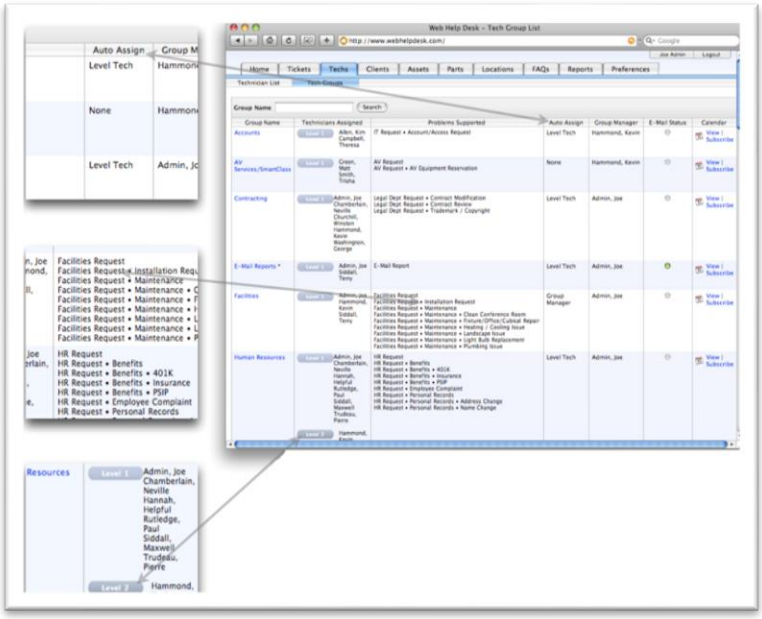

Figure 2.1 Web Help Desk's Assign Ticket to Technician

The new problem can be submitted via email which is can be dedicated to several email. Help desk e-mail accounts are monitored by the application, with new messages used to automatically generate as new tickets. Any requests can be updated through e-mail such as to add new notes, change the status, attach a file or reassign a technician. Web Help Desk keeps all of the technicians and users up to date with any activity happen with e-mail alerts. All new tickets and ticket updates can be e-mailed to the selected recipients. Technicians and management can be alerted if jobs have been left unchecked, unassigned or incomplete for a specified time period or over the due date.

Knowledge base functionality is built into Web Help Desk, created for provide a huge database, with searchable database for previous requests with their solution available for self-service by users, technicians, and administrators. Previous ticket will be uploaded to Frequently Asked Question (FAQ) to make knowledge sharing become more powerful.

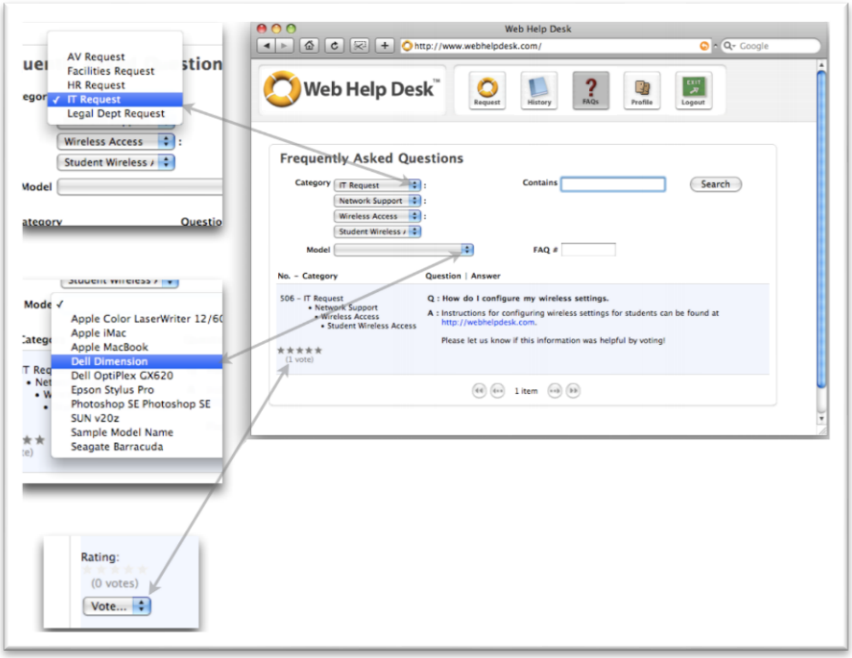

Figure 2.2 Web Help Desk's Knowledge Base

The Web Help Desk can be accessed in MAC OS X Server, Windows 2000/NT/XP/2003/2005 Server, Linux and Solaris. Any server with Java 5 installed can be run this system because it written in Java.

2.1.2 VersaSRS HelpDesk

VersaSRS HelpDesk has been designed to automate service desk processes and meet all the customer requirement need from a help desk. This help desk consist of several key features that make it become a interesting help desk. A problem report or ticket is the basic building block around which a Help Desk or Service Request System is built. A ticket is the request from a customer, the problem, or the request from an internal worker that needs to be actioned. *VersaSRS HelpDesk* allows calls to be logged in one of two ways:

i. directly via the system (operator input)
ii. via email

Each queue within *versaSRS HelpDesk* can be configured with a primary email address. Email destined for *versaSRS HelpDesk* is interrogated, and the 'mail to' address extracted, with the system attempting to map to the primary address of a queue. *VersaSRS HelpDesk* has been designed to automatically send an open confirmation email to either the primary or secondary requestor of the call. This email is template-based, and is unique to each queue as is the close confirmation email which is optionally sent when a call is closed (configurable).

Each call is assigned with a unique ticket number that is used by the system to track call-related correspondence like if an email is sent to the primary requestor via the system and the requestor replies, the incoming email will automatically form part of the correspondence history for that call.

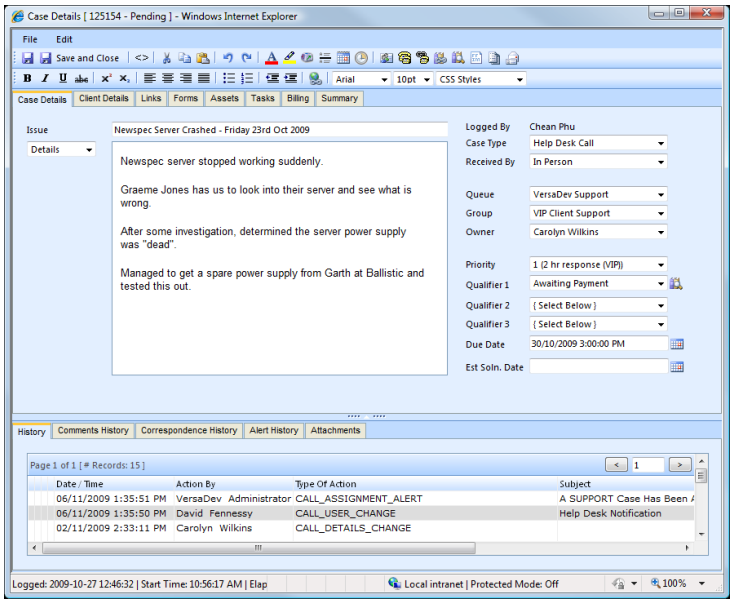

Figure 2.3 *VersaSRS HelpDesk* Call Logging Screen

VersaSRS HelpDesk also contains an extensive knowledge base allowing the collection of problems and solutions for all users of the system. The knowledge base may be searched to appropriate article or solutions that are found easily from all sources such as driver, manual or feedback from user.