



Ticketing System is an IT Service Management Platform

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ABSTRACT:

Ticketing systems serve as integral IT service management platforms, facilitating remote assistance for clients associated with various organizations. Functioning both as a help desk software and a solution provider, these systems streamline service requests while ensuring efficiency. Typically deployed on virtual machines, they offer accessibility across organizational boundaries. Particularly valuable for users seeking guidance, these systems leverage predefined solutions to address queries. In the realm of IT management, the deployment of ticketing tools in cloud-based virtual environments, such as AWS, is becoming increasingly prevalent. This evolution underscores their pivotal role in resolving end-user issues and fostering organizational productivity. In the modern business environment, a customer-centric approach is more valued, and every company strives to establish a win-win partnership with its clients. It is extremely difficult to run a lucrative business and a great one without happy customers. Arrangements The biggest issue facing any firm is tracking and managing customer complaints. In this case, My prepared solutions will be made available as a Help Desk ticketing system (HDTs) software.

Keywords:

Ticketing System, Incident Management, Service desk, SLA (Service Level Agreement), ITIL (Information Technology Infrastructure Library), Escalation process, Remote support.

I.INTRODUCTION:

The evolution of technology has significantly influenced the role of Help Desks in academic settings. Initially focused on mainframe programming and debugging, the Help Desk now caters to a diverse range of software and user proficiency levels due to the proliferation of personal computers in campus computing labs. Adapting to these changes, Help Desks must now provide support that aligns with academic standards while enhancing the overall learning experience.[6]

The difficulties that users are facing are growing in complexity and scope over time. The support staff serves as a center for offering various services in addition to technical support. no longer able to "store" the essential information in their heads. It is essential to "keep" this knowledge. someplace from which it can be retrieved as needed particularly while resolving the issue. "Information in use" is the definition of knowledge.[7]

Additionally, it makes it easier to handle IT tickets and permits the automation of routine IT duties (such as assigning tickets to support representatives and sending out emails to relevant parties, among other things). Moreover, it can aid in the definition and reduction of the various activities that make up the various business processes. Furthermore, it facilitates the assessment of the overall performance of the IT department through the utilization of created reports and evaluated key performance indicators (KPIs). Not to add, implementing such software improves customer satisfaction, service quality, and productivity inside an organization.[8]

The goal of this research is to create a Help Desk Support System that automates the technical support process by handling technical problems and questions through request queuing and ticket automation, all while utilizing a Priority-Based Scheduling Algorithm. Information about typical help desk difficulties was intended to be provided via a knowledge-based approach. To guarantee equitable and balanced processing, it offers a novel way to handle ticket requests utilizing the Priority-Based Scheduling Algorithm.[9]

Providing technical support for diverse systems and extended services to academics, staff, and students is a difficulty faced by educational institutions. With so many "spokes" of user services focused around it, the campus help desk has evolved into the "hub" of support. The help desk coordinates communication between teams and services, combines support for teachers, staff, and students across decentralized and centralized systems, and handles change in a way that minimizes its impact on end users.[10]

II.LITERATURE SURVEY:

Roel P. Masongsong. et al.,2016 say that they conveyed their appreciation for the support offered by the help desk, emphasizing its extensive features and resources. These tools can operate on their own and can also be incorporated and networked within the help desk automation systems[1].

Benjamin S. Aribisala. et al.,2014 say that when compared to the current manual help desk system, the results obtained in terms of system performance are determined to be superior in terms of speed, accuracy, data shareability, multiple user request processing, processing huge volumes of data, and user friendly[2].

Richard Kirchmeyeror 2002 says that for its diverse campus users, Western provides nine different help desks to contact, depending on the issue location, nature, and or time of day.[3].

Dan R. Herrick. et al., say that Our management tools have improved, with features like logical ticket grouping, an overhead view of issues, and reporting capabilities. We will describe how employing the "right tool for the job" in conjunction with an efficient help desk software tool enables us to effectively manage assistance for our clients[4].

John Gormly 2003 says that With technology more integrated into institutions, the expected level of desktop computing support began to rise. When these expectations were not met, users began to lose faith in the support services. There was a decrease in support calls, and several departments began hiring staff to help with desktop PCs. Under new management, we launched the Help Desk's rapid rebirth in July 2002 and developed a plan to improve desktop computer support[5].

III.PROPOSED METHODOLOGY:

3.1 The ManageEngine Service Desk Plus offers robust capabilities in IT Request Tracking and Asset Management. Through its modules, professionals and system administrators can efficiently resolve complex issues, reducing end-user dissatisfaction due to lengthy problem-solving processes. Additionally, it enables proactive resource allocation based on organizational needs, enhancing productivity. ServiceDesk maintains a centralized repository, known as Configuration Items (CIs), which includes hardware, software applications, documents, business services, and personnel, providing comprehensive insight into the IT environment.

ARCHITECTURE DIAGRAM

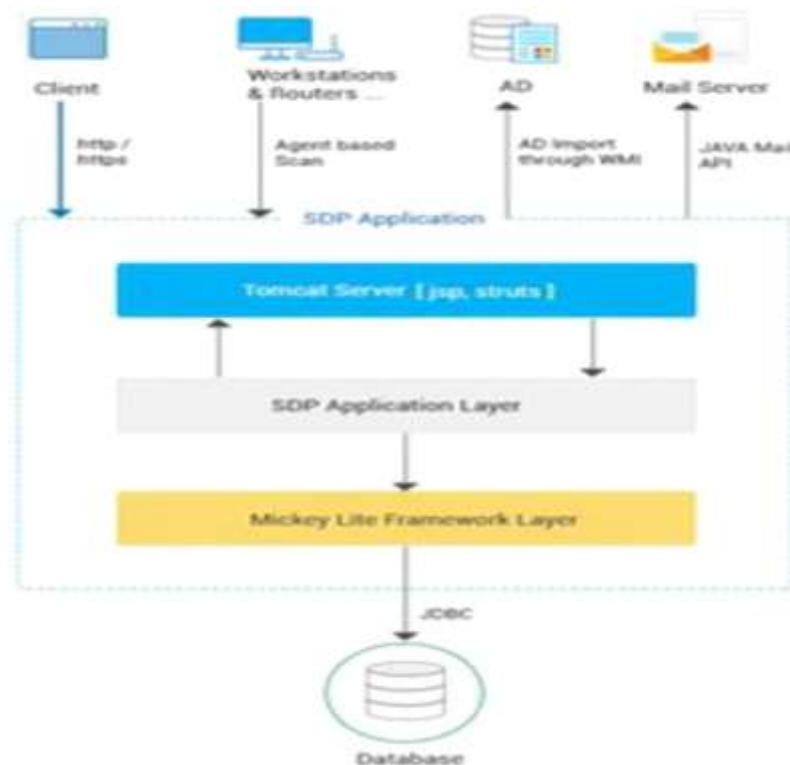
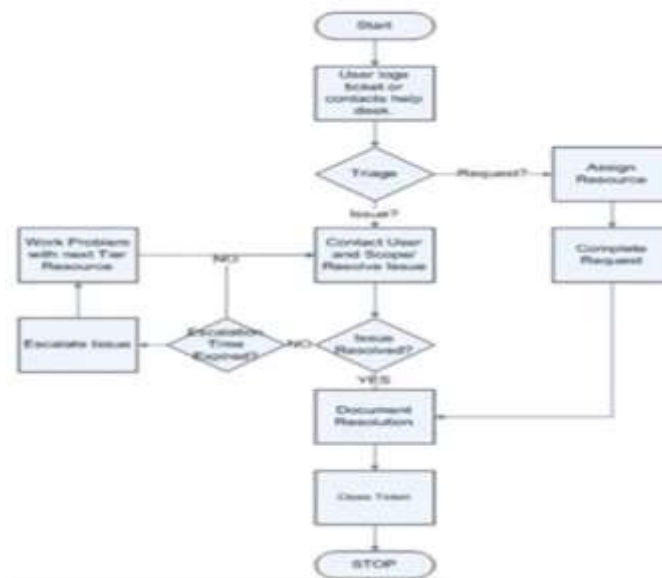


FIGURE 1. Architecture diagram for ticketing system

A help desk ticketing system architecture diagram illustrates the system's structure, depicting components like user interfaces, databases, servers, and communication channels. It visually communicates the flow of information, showcasing how tickets are submitted, processed, and resolved. This diagram aids in understanding the system's design and functionality.

3.2 FLOW DIAGRAM:



3.2.1 Figure2. Flowchart Explanation:

The flow of scheduled tickets generated in the overseas motor department graph. The operational section of this publication explains the necessary processes from beginning to end. Your company's Requests module keeps track of and arranges different types of help desk tickets. It enables quick ticket administration, technician assignment, request merging, and other features. The Requests module improves Response and resolution times, which keeps track of pending and past-due requests.

Main modules:

Admin, team leader, team member, network manager and networking engineer

Design Overview:

Project design consists of five phases where each module will have a method to communicate with other modules and after viewing requests, they can reject, and process to another team.

Admin:

He can handle team leader requests reject requests and forward requests to the network engineer for further processing.

Team Leader:

Each team leader will have the option to take requests from team members and even reject requests and forward requests to admin. He can track request status and view employee profiles.

Team Member:

An employee who is working on a project will request help by raising a complaint which will be forwarded to the team manager. This module will have an employee profile that can be edited at any time.

Network manager:

The network manager is the head of different networking employees who will take requests from the admin and forward them to team members.

Network Engineer:

He is a network employee who will take tasks from a manager complete tasks and update status.

IV RESULT AND DISCUSSION:

1. HDTS Home Screen



Figure 3. HDTS Home Screen

Figure 3, the search help system to search a ticket.

A help desk ticketing system provides secure access for support agents on the login page. It ensures authenticated entry, protecting sensitive customer data. This gateway grants authorized personnel exclusive access to manage and resolve tickets efficiently, maintaining the integrity and confidentiality of customer support interactions.

2. HDTS Submit ticket screen



dD Figure 4. HDTS Submit ticket screen

Figure 4. demonstrates your name, email, priority, subject, and message and you can click the submit ticket. The Submit Ticket screen in a help desk ticketing system empowers users to articulate their issues concisely. It offers a user-friendly interface for capturing essential details, facilitating seamless communication with support agents. This streamlined process enhances efficiency, ensuring a prompt and accurate resolution of customer inquiries while maintaining a user-centric approach.

3. HDTS View Existing Ticket Screen



Figure 5.HDTS View Existing Ticket Screen

In Figure 5. The view existing tickets you can enter the ticket tracking ID and email then we can view that ticket. The traditional ticket view screen in your helpdesk system gives users an overview of the requests they've sent. This makes it easier to track, update status, and communicate with customer service. This interface ensures transparency and collaboration, keeping users informed and engaged throughout the problem-solving process.

4. HDTS Staff login screen

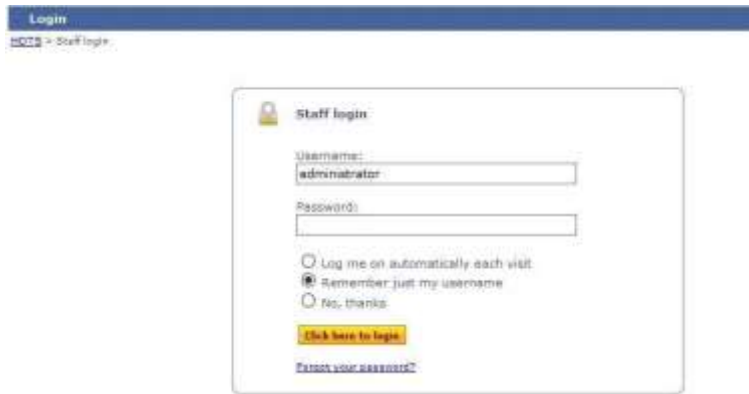


Figure 6. HDTS Staff login screen

Figure 6, Staff can be logged in using a username and password. Then click here to log in. The staff login page for a help desk ticketing system serves as a secure entry point for support agents. It ensures authenticated access, safeguarding sensitive customer information. This gateway allows authorized personnel to manage and resolve tickets efficiently, fostering a secure and efficient environment for addressing customer support needs.

5. HDTS Admin dashboard



Figure7. HDTS Admin dashboard

In Figure 5. see that the tickets screen can be opened In that ticket you can find the ticket that you want by selecting tracking ID and clicking find the ticket. The admin dashboard page of a help desk ticketing system provides administrators with a centralized hub to monitor and manage support operations. It offers real-time insights into ticket statuses, agent performance, and system analytics. This interface empowers administrators to optimize workflows, allocate resources effectively, and ensure a seamless customer support experience.

V.CONCLUSION AND FUTURE ENHANCEMENTS:

They will need to continue refining and enhancing the system to ensure it effectively controls the support process at Southtech Limited. The improvements aimed at improving user interaction and indirectly enhancing customer interactions are crucial for achieving a higher quality of service. While the Helpdesk can always be improved, the system is now ready for utilization with basic functionality in place. Further evaluation and refinement will be ongoing to optimize the support desk over time.

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