Implementation of an Intranet System

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Abstract

An intranet system is an internal corporate network that is defined as a network of interconnected computers that only a limited number of people in an organization have access to. It is a "private version of the internet" or an internal Internet confined to an organization.

Intranets are used to convey information among employees of a company. They can be used as references for internal procedures and regulations, and they can be applied as collaboration tools.

Intranets have transformed from being tools through which key personnel and management post information to becoming tools through which all employees generate content to obtain an updated and expanding intranet. Technically, an intranet system is defined as follows:

A network on TCP/IP protocols (an Internet) belonging to an organization, usually a corporation, accessible only by the organization's members, employees, or others with authorization. An Intranet's Web sites look and act just like any other web sites, but the firewall surrounding an intranet fends off unauthorized access. (Wikipedia 2007, cited in [14]).

Introduction

In today's rapidly evolving digital landscape, effective communication, seamless collaboration, and efficient information sharing are essential for the growth and success of any organization. Recognizing this imperative, Nairobi City Council (NCC) is embarking on a transformative journey towards the implementation of a comprehensive intranet system.

The NCC, as a dynamic and diverse municipal entity serving the vibrant community of Nairobi, understands the paramount importance of robust internal communication and streamlined operations. An intranet system represents the key to achieving these goals. This initiative aims to create a secure and user-friendly digital workspace that will empower our dedicated employees, enhance productivity, and enable us to better serve the residents of Nairobi.

As we navigate this journey, the NCC intranet project will not merely be a software deployment. It represents a cultural shift towards a more connected and collaborative workforce, where information flows seamlessly, decision-making is informed, and innovation thrives. It embodies our commitment to progress, transparency, and efficiency.

Literature Review

In their 2014 paper, "Implementing Intranet 2.0: A Study of Knowledge Requirements for External Consultants in Enterprise Systems," Eli Hustad and Thomas Vikstøl present a comprehensive examination of the challenges and knowledge prerequisites faced by external consultants engaged in intranet implementation projects within enterprise systems (ES). Their research focuses on the unique perspective of external consultants, shedding light on the diverse roles and extensive knowledge base required for successful intranet projects. The study underscores the multifaceted nature of these endeavors, emphasizing the necessity for consultants to possess technical acumen, organizational insight, and an understanding of end-user dynamics. The authors propose a practical framework delineating the essential roles, including project manager, system developer, advisor, and knowledge broker, that consultants must master. Furthermore, the paper highlights the challenges encountered during intranet projects, including the importance of management commitment, effective communication, customization risks, resistance to change, and the need for a shared knowledge culture. This research significantly contributes to our comprehension of the multifarious roles and knowledge prerequisites that enterprise systems professionals must encompass during large-scale implementation projects, emphasizing the critical link between consultants and organizational success.

Mohammed Usman's exploration of the characteristics and significance of intranets in organizations sheds light on their multifaceted role. The identified characteristics, ranging from open, multi-way communication channels to their impact on every job within a company, underscore the pivotal role played by intranets in fostering effective communication, collaboration, and operational efficiency. Furthermore, Usman underscores how modern intranets are transforming the organizational landscape by serving critical purposes such as decision support, risk mitigation, innovation, learning, and employee engagement. The ability to profile employees and harness their skills amplifies the intranet's importance as a strategic and operational tool, underscoring its indispensability in contemporary medium to large-scale businesses and public sector organizations. Usman's work highlights the evolving role of intranets as a digital reflection of a company's values and a cornerstone of modern organizational operations.

Boersma and Kingma's article delves into the multifaceted role of intranets as knowledge management tools within organizations, examining their cultural dimensions. The literature reviewed underscores the potential of intranets as transformative ICT tools that can complement or supplant existing communication channels. Intranets are perceived as catalysts for information sharing and collaboration across organizational silos, resonating with the concept of

disruptive innovation. The authors introduce a three-dimensional framework to analyze intranets: the constitution (material and spatial aspects), the condition (functional integration of knowledge systems), and the consequences (impact on organizational culture and broader contexts). They emphasize that the cultural significance of intranets extends beyond their technical functionalities, emphasizing that organizations must carefully consider how intranets are deployed to harness their full potential for knowledge creation. Intranets are not merely solutions to communication challenges but complex cultural phenomena that warrant thorough understanding and analysis.

Software Requirements Specification

The purpose of this Software Requirements Specification (SRS) document is to outline the requirements and expectations for the development of an intranet system for Nairobi City County.

This project aims to create a comprehensive intranet platform that enables efficient communication, collaboration, and information sharing among Nairobi City County employees.

The SRS document provides detailed information about the functional and non-functional requirements of the NCC intranet project.

General Description

Product Perspective

The intranet will serve as an internal communication and collaboration platform for NCC. It will integrate with existing systems, including HR and document management systems.

Product Functions

The intranet will provide the following key functions:

- User authentication and authorization
- News and announcements
- Document management
- Employee directory
- Calendar and events
- Task management
- Collaboration tools
- Integration with existing systems

User Classes and Characteristics

The intranet will cater to various user classes, including employees from different departments, management, and administrators. Users may have varied technical proficiency.

Operating Environment

The intranet will be accessible via web browsers and mobile devices. It will be hosted on secure servers within NCC premises.

Design and Implementation Constraints

The intranet should be designed to meet security and compliance standards.

It should integrate with existing NCC systems.

Assumptions and Dependencies

The project assumes that necessary hardware and software infrastructure will be available.

Dependencies may include third-party software and API integrations.

Specific Requirements

Functional Requirements

User Authentication and Authorization
Users must authenticate to access the intranet.

Role-based access control should be implemented to restrict access to specific features.

News and Announcements
Administrators can post news and announcements.

Users can view and comment on news articles.

Document Management
Users can upload, organize, and search for documents.

Version control for documents should be available.

Employee Directory
A searchable employee directory with profiles should be provided.

Calendar and Events
Users can view and RSVP to events.

Event organizers can create and manage events.

Task Management
Users can create and assign tasks.

Task progress tracking and notifications should be available.

Collaboration Tools
Tools for real-time collaboration, such as chat and video conferencing, should be integrated.

Integration with Existing Systems
Integration with HR and document management systems for data exchange.

Non-Functional Requirements

Security and Access Control
Data encryption in transit and at rest.

Access control based on user roles.

Regular security audits and vulnerability assessments.

Performance
Fast response times even under heavy load.

Scalable architecture to handle growing user base.

Scalability
The system should be able to scale horizontally and vertically.

Usability
User-friendly and intuitive interface.

Accessibility compliance.

Compliance
Compliance with relevant data privacy and security regulations.

Regular data backups and a disaster recovery plan.

User Interface Requirements

Design and Layout
A clean and visually appealing design.

Consistent navigation and layout.

Responsiveness
Support for various screen sizes and devices.

Documentation Requirements

Comprehensive user guides and documentation for administrators.

Training and Support Requirements

- Training sessions for employees on how to use the intranet.
- Ongoing technical support and helpdesk.

System Models