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Web Broadcasting and Multi User System

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***Abstract*—** This system has been successfully developed and hosted in the different server configurations and undergoes different kind of tests in the environment of multi user systems any number of user can enjoy the videos with multi access. It has enough functionality beyond web TV to any home entertainment system. It has a quick access to the thousands of video files available in various categories. It provides a high quality performance for the videos to be watched out by the viewers. When multiple video sources are live-encoded and transmitted over a common wireless network, each stream needs to adapt its encoding parameters to wireless channel fluctuations, so as to avoid congesting the network. We present a stochastic system model for analyzing multi-user congestion control for live video coding and streaming over a wireless network. Variations in video content complexities and wireless channel conditions are modeled as independent Markov processes, which jointly determine the bottleneck queue size of each stream. Interaction among multiple users is captured by a simple model of random traffic contention. Using the model, we investigate two distributed congestion control policies: the approach based on stochastic dynamic programming (SDP) and a greedy heuristic. Compared to fixed-quality coding with no congestion control, performance gains in the range of 0.5-1.3 dB in average video quality are reported for both schemes from simulation results under various video and channel characteristics.

***Keywords*—**Broadcasting, Multiuser, Congestion Control, Fixed Quality, Channel.

I. INTRODUCTION

Instant messaging (IM) is an online real-time communication between two or more people based on typed text messages, over the internet or Local Area Network (LAN) [1]. Web-based Instant Messaging is an IM that is integrated or embedded in a web browser; it requires no application, or update download or installation. Web-based IM has witness a tremendous growth in popularity since inception because of the advantages over a traditional IM application. Web-based IM requires no application download, updates, installation or configuration. You only require a computer that is connected to the internet with a web browser to communicate with your colleagues, friends, and relations. Secondly, web-based IM is platform independent, which means that it can be used in any operating system provided that there is a web browser and internet connection or LAN. Lastly, with web-based IM there is no firewall problem. Since the application is embedded in a web browser it uses http port so there is no need for any configuration to bypass firewall. The project The main idea of this project is to develop and implement a web-based instant messaging system. If time permits, voice chat and video chat will be added to the system to increase its functionality. The system will have support for text chat, contact list, presence awareness, voice chat, and video chat. Motivation Traditional instant messaging applications presents a lot of problems and challenges to users especially those using then in public computers such as school libraries, computer labs, and internet cafés; due to the fact that the application have to be downloaded, installed and configured before it can be used and also the fact that it is platform dependent.

These problems restrict user's access to cheap and convenient means of communicating with their colleagues, friends, and relations. Then an idea dropped off in my mind to develop and implement a web-based IM system that will completely eliminate these problems users are experiencing so that they will have unrestricted access to cheap and convenient means of communicating with their colleagues, friend, and relations. Project layout Chapter 1 of this project introduces traditional instant messaging IM applications and their drawbacks, and web-based IM as a solution to the problems of traditional IM applications. Chapter 2 takes a look at the User's Requirement Document (URD); the problems from the user's point of view, and features that are expected and those not expected from the system. Chapter 3 deals on the Requirement Analysis Document; problems from the designer's point of view and the system and software needed to implement the user requirements. While chapter 4 concentrates on the user Interface Specification (UIS); the complete description of the user interface, what it

looks like, what exactly is going to do, and how the user interacts with the system. Chapter 5 described the Object Oriented Analysis (OOA) known as the high level design which is the object oriented view of the system, and description of each object and their attributes. Chapter 6 focuses on Object Oriented Design (OOD) known as low level design which is the inner details of the class attributes and methods, and state, activity, and event diagrams. Chapter 7 deals on the implementation; a brief description of the installation of the computing infrastructure, setup and configuration information, and a list of tools (hardware and software) used for the implementation.

The traditional instant messaging applications made a positive and tremendous impact in internet communication but they pose a lot of challenges to users which limits user's access to cheap and convenient means of communication. Web-based instant messaging provides an answer to most of the problems and challenges of traditional IM applications. The next chapter looks at user's requirement document.

II. METHODOLOGY

User can access after done their registration with proper proof of id into this system. Highly Robust and work flow based design. Search any kind videos from on the video allery. Listen and watch the videos over this video gallery. Can hear and watch the videos clearly through this system. We can give a rating for the videos through the rating card options. It supports the cross browser compatibility. It never limited resources and testing with high number of user counts. Stores the user profile in the central database by date.

- It supports the cross browser compatibility.
- Search any kind videos from on the video gallery.
- Highly Robust and work flow based design.

III. RESULTS AND DISCUSSION

ABOUT US

This module shows the details about this web broadcasting and multi user system to handle by any kind of users those who are interested to view the videos and offers the rating for the particular videos by the options.

LOGIN

Each user who wishes to perform the operations by using this tool has to enter their user credentials against the secured authenticated layer that validate the users and assign the right authorization policy and make sure details are maintained securely in our system.

VIDEO GALLERY

The main objective of this module is to categorize the different kind of videos by the options which can upload by the admin of this system. It includes the validating the videos for sensor purposes and perform violation policies for the videos that are uploaded by the any user. Data streaming load tests are also handled in this system for the slow internet connections.

RATING CARD

This module is used to get the rating description from any kind of user after the viewed the several videos by choosing the options that are provided by the system. The rating card is designed with the motto of improve the performance of the system and get the true feedback from the users. This rating card is prioritized by the high quality, number of viewers watched the videos and streaming options provided in the system.

WEB ADMIN

The web admin is an overall administrator for the entire system to handle the videos uploads, edit options and view the feedbacks and manage the video streams.

REPORTS

The reports have been generated on weekly basis to send the data to the backup servers on different file formats.

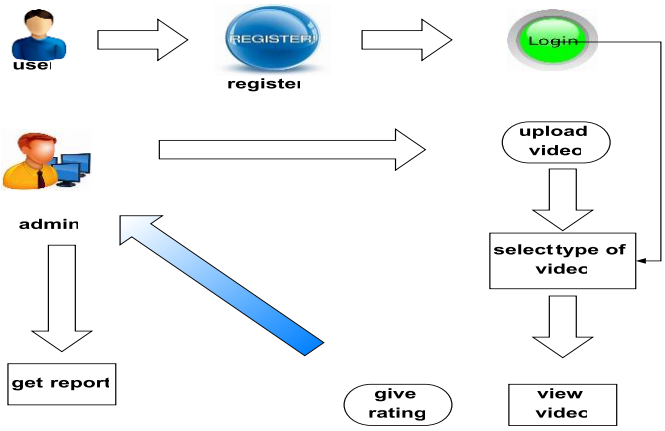

FIGURE 1: SYSTEM ARCHITECTURE

IV. CONCLUSION AND FUTURE SCOPE

This system has been successfully developed and hosted in the different server configurations and undergoes different kind of tests in the environment of multi user systems any number of user can enjoy the videos with multi access. It has enough functionality beyond web TV to any home entertainment system. It has a quick access to the thousands of video files available in various categories. It provides a high quality performance for the videos to be watched out by the viewers.

This system is platform independent and can be used by any kind of processor. It is designed with robust and easy to

implement in any network places. It is highly scalable and provides the feasible updates to make this project efficient and handle by any kind of user.

In future this system has been further enhanced into different level according to the client requirement and hosted be hosted in the several server configurations and undergoes different kind of tests in the environment of multi user systems any number of user can enjoy the videos with multi access. It can be further extended according to the work flow process. It has a quick access to the thousands of video files available in various categories. It provides a high quality performance for the videos to be watched out by the viewers. This system is platform independent and can be used by any kind of processor. It is designed with robust and easy to implement in any network places. It is highly scalable and provides the feasible updates to make this project efficient and handle by any kind of user.

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