



Cloud Based intrusion Detection System

Nandasana Pooja¹ | Ritesh Kumar² | Pooja Shinde³ | Akanshu Dhyani⁴ | Prof. R.S. Parte⁵

¹Department of Computer Engineering, JSCOE, Hadapsar, University of Pune, Pune – 28, India

²Department of Computer Engineering, JSCOE, Hadapsar, University of Pune, Pune – 28, India

³Department of Computer Engineering, JSCOE, Hadapsar, University of Pune, Pune – 28, India

⁴Department of Computer Engineering, JSCOE, Hadapsar, University of Pune, Pune – 28, India

⁵Department of Computer Engineering, JSCOE, Hadapsar, University of Pune, Pune – 28, India

ABSTRACT

In Today life The Security is the most common challenging issue in the world and with such advancements happening, the security of most is the home security. Many of technology come in market For Security. In the Modern world advances in electronics and communications technologies have led to the miniaturization and improvement of the performance of computers and networking. These changes have given rise to the development of several home automation technologies and system. Surveillance can be defined as monitoring of the behaviour, other changing information, activities, observing or analysing particular area for the purpose of directing, influencing, managing or protecting. A home security system should provide safety and security features for a home by alarming the residents from natural, accidental and/or human dangers such as: flooding, fire, theft, animals invading etc.

To design a software application for intrusion detection system to identify malicious activities using cloud technology.

KEYWORDS: Processing, Cloud Computing, Thresholding Algorithm, Gaussian Blur Algorithm, Blob-detection Algorithm

Copyright © 2015 International Journal for Modern Trends in Science and Technology
All rights reserved.

I. INTRODUCTION

Intrusion Detection System (IDS) is means to be a software application which monitors the home activities and finds if any malicious operation occur in the area. Tremendous growth and usage of internet raises concern about how to protect and secure the home .Intrusion detection system is a software application which monitor target system for any unusual activity. It inspects the home to find any activity which can be any one come in home(person, birds, animals etc.), integrity and security of the system in a safe manner. We introduce the Design of Mobile Video Surveillance Based on Android Phone, the system structure, the streaming media transmission..

A. Cloud Computing

Cloud computing is known as the logical computational resources(data, software) accessible via a computer network (through Internet or WAN etc.), rather than from a local computer. Data are stored on Server side generally present in the country of the service provider company. The on-line service is offered from a cloud providers. Cloud computing provides computation, data access , software and storage service that do not require end-user knowledge of the configuration and physical locations of the system that delivers the services. Cloud computing is differ from the classic client-server model by providing application from a server that are executed and managed by a client's web browser, with no installed client's version of the application required. Centralization gives cloud service providers complete control over

the version of the browser-based application provided to client, which removes the need for version upgrade or license management on individual client computing device. The phrase "Software as a Service"(SaaS) is sometimes used to describe applications program offered through the cloud computing. A common short-hands for a provided cloud computing services(or even an aggregation of all existing cloud services) is The Cloud computing work on a client-server basis,using web browser protocol. The cloud provide server-based applications and all data services to the users, with output displayed on the client device. If the user wish to create a document using a word processor, for eg. the cloud provides a suitable application running on the server which

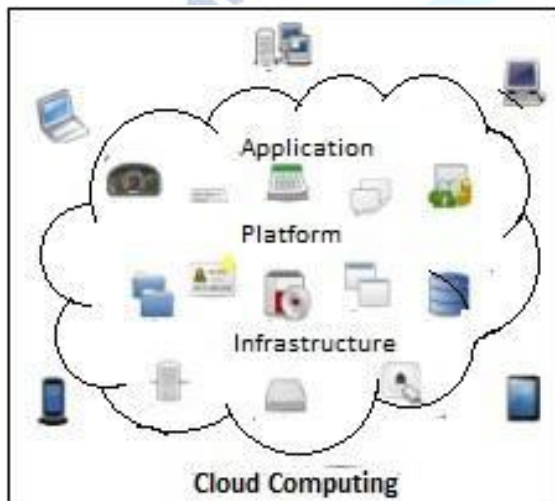


Fig 1 Cloud Computing Logical Diagram

display work done by the user on the client web browser display. Memory allocated to the clients android system's web browser is used to make the application data appears on the client systems display, but all changes are recorded by the server, and final result including files created or altered are permanently stored on the system. Performance of the cloud computing application is fully depend upon the network access,speed and reliability as well as the working speed of the Android device of client .

B. Image-Processing Technology

Image-processing method Technology is used to convert an image into digital form and perform some operations on the converted image, in order to get an enhanced image or to extract some useful information from it, or a video, such as a photographs or video frame the output of image processing may be either an image or a set of

characteristic related to the images Most image-processing techniques involve treating the images as a two-dimensional signal and applying standard signal-processing technique to it. Images are also process as three-dimensional signals where the third-dimension being time or the z-axis.

II. RELATED WORKS

In Digital video recorder(DVR) can captures videos continuously but it requires some human resource to monitor it which is mostly use only in organizations and business area whereas this will not be suitable for a home environment. If any motion is detected by the camera, it will be immediately sent to the controller. Controller analyses the signal and processes it by using thresholding algorithm. By using Internet connection in the room, it can be transferred to the cloud server and stored in it. To inform the USER status of the room, they will be get the Email alert with picture in his/her Email-Id. So, The user can view the Live video of the intruder who entered in home by URL of the server using internet connection anywhere from the world they are staying. If an alert command is to be given, the alert button on the page can be clicked so that the alarm rings. Alert is immediately sent to the nearby police station to protect the house.

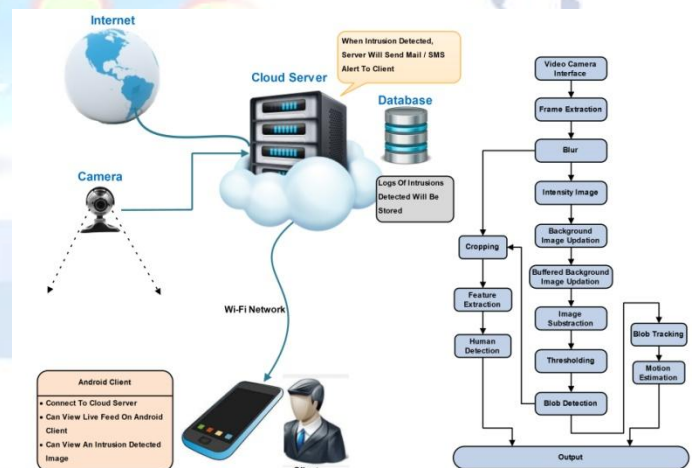


Fig 2:-System Block Diagram

III. PROBLEM IDENTIFICATION

- Live video stream On Android Mobile.
- Store The Intruder Image on the System.
- Matching that binary image with my constant image.
- The proposed system can Interface between hardware.

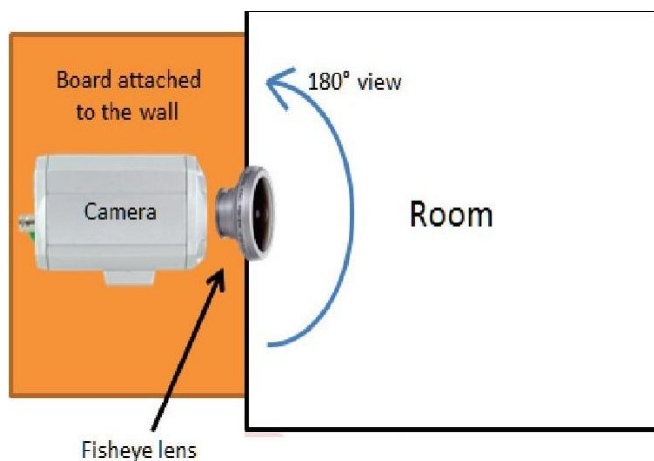


Fig 3 : Camera connect in wall

IV. MERITS AND DEMERITS

A. Merits

- Our System Can be Provide better security.
- Allow fast recognition of the moment abandonment to determine whether a threat exists.

B. Demerits

- Interface between hardware

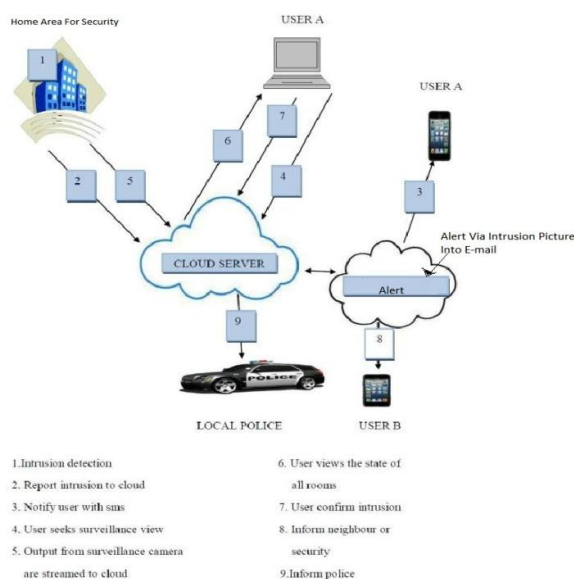


Fig 4 : Basic Infrastructure of Intrusion System

V. SYSTEM FEATURES

- Intrusion prevention systems are designed to pro-actively block incoming threats whereas an IDS is more reactive in nature.
- Proposed an innovative periodic concept based

framework that enables multi-functional functions in a human surveillance system for user use.

- The occlusion problem is also thoroughly tackled and successfully deal with various aspects.

VI. FUTURE SCOPE

- To detect any unusual activity before loss to important thing or material
- To detect criminals before any crime

REFERENCES

- [1] E. Brown, "NIST issues cloud computing guidelines for managing security and privacy," *National Institute of Standards and Technology Special Publication 800-144*, January 2012.
- [2] P. M. a. T. Grance, *Effectively and Securely Using the Cloud Computing Paradigm (VO. 25)*, US National Institute of Standards and Technology, 2009.