

Accessing Data from Private Cloud Which Store User Device Data Securely and Remotely On The Basis Of User Behavior Analysis

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Abstract A smart home is new concepts which have been popular at home and abroad. Due to the rapid development of smart home, a large amount of life data have been accumulated, and these data contain a lot of information about user behavior, they shows user's activity truly and objectively. But these data exist in multiple data sources, such as computers, smart phones, and smart televisions and so on. So we have to gather this data and make the right model to find user behavior. Now we propose technique that searches any record from private cloud with the help of characteristics of user behavior. Using it, user get expected result of file that they always wants. Also we design security by using ECC (Elliptical curve cryptography) algorithm and VNC architecture to access the desktop of remote computer system with the use of android based cellular phone.

Keyword:- User Behavior, Elliptical Curve Cryptography.

I. INTRODUCTION

Smart home system has always been the focus of global IT people and home appliances manufacture. A fully-fledged smart home system is collection of different household appliances. Due to the popularity of smart home, there will emerge sufficient data in our day to day life. Many people started to pay attention to make full use of the data processing capabilities of smart devices, to analyze data of the smart appliances to extract the user's normal patterns of life and the habits, and finally provide users with personalized service and remind.

However, using traditional data analysis techniques to deal with the isomerization of data set does have many limitations. Considering the diversification of those data that generated from our daily life, how to use these existing data to analyze users' behavior and how to provide personalized services to different people under the specific conditions such as a particular time or place, seems to become a more and more important issue. As an important part of the data mining technology, association rule mining aims at investigating how to find out the underlying rules and links through the massive amount of data. Through this method, it could be helpful with the decision-making. Furthermore, Apriori algorithm is a probability-based Boolean association rules mining algorithm [4]. It uses the knowledge of frequent item sets and iterative search method, through this progressive way it shall identify the relationship among those items then form a rule. This paper is based on the method of Apriori algorithm which is a series of deep research will be conducted including mining towards the massive data [4]. This massive data associated with our life and it find out the potential information that users preferred.

II. LITERATURE SURVEY

Bo yin et al. This paper execute framework that emphasis on At home and abroad, savvy home, after over ten years improvement is getting more consideration and support. Presently a day, there is the quick advancement of keen home, a lot of life information have been aggregated, and these information contain a great deal of data about client conduct. They can mirror the client's action genuinely and impartially, yet these information present in diverse information sources, for example, PCs, PDAs, savvy TVs. Krishna Kumar, D. Amrita, N. SwathiPriya et al. This paper actualizes another way to deal with prune and channel found principles. To begin with, we propose to utilize ontologies to enhance the combination of client learning in the post preparing errand. Second, we propose the Rule Schema formalism developing the detail dialect, which help in taking choice.

Irma Fatima, Muhammad Fatima, Young-Koo Lee et al. This paper execute action acknowledgment in keen homes is a dynamic exploration territory because of its relevance in numerous applications, for instance as assistive living and social insurance. Other than movement acknowledgment, the data gathered from brilliant homes has enormous potential for other application spaces like way of life investigation, security.

Borgelt C, Kruse et al. This paper actualize technique affiliation guideline prompting strategy additionally called market crate investigation which is utilized to discover regularities in shopping conduct of client of store, online shop. With the assistance of prompting affiliation principle on tries to discover arrangement of item that are habitually united. The significance of tenet is measured by two

parameter. One is bolster which is the percentage of exchange that the guideline can be connected. Second is the certainty which is the quantity of cases in which it is relevant.

Narrows VO, Bac Le et al. This paper executes another calculation for mining summed up affiliation guideline. This calculation filters database one time just and Tidset to register backing of generalized item set speedier. This calculation mine thing set in hierarchal database with least support. Ikshwansu Nautiyal, Madhu Sharma et al. This paper actualizes ECC for encryption and unscrambling and confirmation procedure utilizing java as implementation tool. It is secure from animal power assault as it possesses discrete logarithmic issue. It uses prime number p , relative point AP , and base point Bp .

Kristin Lauter et al. This paper implements a review of elliptic bend cryptography and its utilization in remote environment. The primary target is to center of the performance point of interest acquired in remote environment by utilizing elliptic bend cryptography rather than customary cryptography.

Archana Jadhav, Vipul Oswal, Sagar Madane et al. This paper implements system, which can give access to remote PC framework inside of Wi-Fi arrange independent of their stage like windows, Mac or Linux. It gives portability to the client for controlling their desktop furthermore give highlight like document exchanging. The procedure is done by utilizing virtual system registering based structural engineering and we can get to and control desktop of PC through VNC viewer that will give on client wireless.

Priyadarshani Raskar, Sejal Patel, Pragati Badhe et al. This paper implements architecture use of cellular telephones to remotely control PC. with the assistance of android telephones there is awesome change in the functionalities of cell telephones including java recreations, perusing and sending email, searching website pages and so on can now effortlessly performed utilizing android telephones. This structural engineering gives sharing of showcase between android cellular telephone and PC. This ought to be done within Wi-Fi range. Picture can be compacted before transmission. Adjusted locale calculation is utilized to lessen encoding time of screen picture.

A. Manju, Darshan. A. Mahesh et al. This paper actualize a sufficient arrangement which have been recently executed to fathom the fundamental issue related with remote showcase of cloud administrations on cell phones. There are some constraint of versatile, for example, portable data transmission and versatile memory assets.

III. EXISTING SYSTEM

Existing system consist of user behavior model which consist of four parts data acquisition, data preprocessing, data mining, and analysis of result. Data acquisition will collect data from different component unit of smart home and data pre-processing will integrate isomerization data that come from different terminals to improve the quality of data mining. In the part of data mining, we will analyze the data by means of association rules, and get the predictable results ultimately.

3.1 Data Acquisition Smart home is consist of multiple data sources such as smart phone, smart television etc. which contain data. Hence we have to collect the data from all those devices for preprocessing.

3.2 Data Preprocessing Generally after collection of data next step is mining of data and knowledge discovery is data preprocessing. The 60% of workload is remove in preprocessing but still data become incomplete and inconsistent. Data preprocessing improve the quality of data. It includes attribute reduction and concept hierarchy.

3.3 Data Mining After preprocessing on available data we apply mine association rule in different sub data source and integrate the entire association rule [2].

3.4 Result Finally the result is obtained which find out the user behavior by using behavior analysis model.

IV. PROPOSED METHOD

In proposed method we can apply security on centralize server for searching record by using ECC algorithm and provide VNC based architecture for remote access of desktop. Proposed system divided into 3 parts user behavior Providing security Remote desktop access

4.1 Finding user behavior

Centralize system which store user device data from multiple data sources. Execute the association rule algorithm in each data source and obtained association rule. Then integrate all association rule for given input data and final result is obtained by using user behavior analysis model to find out user behavior

4.2. Providing Security

The centralize server which store user data gather from different source is not secure. So for securing data we apply ECC (Elliptical Curve Cryptography) algorithm. The data which is send or receive from server is encrypted form. It is very difficult to hack user data as ECC algorithm use discrete logarithm.

4.3 Remote Desktop Access

Virtual Network Computing is graphical desktop sharing system providing remote control via network. It also supports controlling functionality by using graphical screen update from controlled device [9]. VNC architecture is basically based on RFB protocol for transferring all the information. It required two type of application for proper working server application and client application Client side is called viewer and it is responsible for viewing shared desktop. Server side interprets all events which are received from client and inject them into self-system. Centralized cloud server (Encrypted data) Mobile User 1 Tablet User n Send and receive encrypted data Web crawler information Process and result analysis Data set Record search on produce data set Data & Browsing History VNC Pc User 2

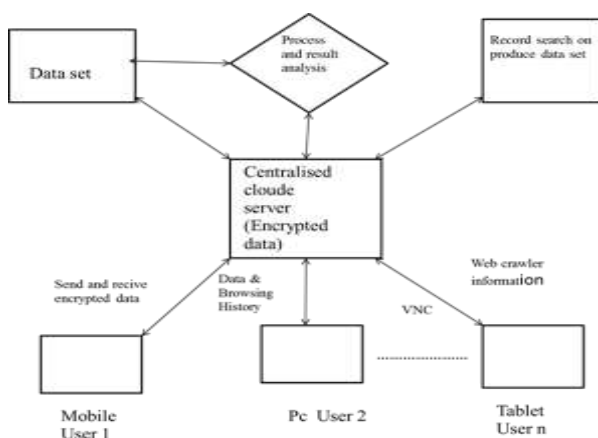


Fig: 1 System Architecture of proposed system

V. CONCLUSION

Generally we cannot retrieve data which is present at different electronic device such as smart phone, smarttelevision, tablet pc etc. by single device. So that our aim is to retrieve that data by single device. This paper implement a technique that collect the data which is present in different source and find the user behavior according to behavior analysis model. This will help the user for searching record as the always want. In proposed system we apply security on the server system by using ECC algorithm. The data store in server side is encrypted data. We also provide VNC architecture for remotely accessing data irrespective of platform.

REFERENCES

[1] Bo Yin, Zhe Zhang, Xi Wang, Zhiqiang Wei*" Research and Application of Data Mining Technology Used in the Analysis of Smart Home User Behavior" Sixth

International Conference on Measuring Technology and Mechatronics Automation 2014.
 [2] A.KrishnaKumar, D.Amrita, N.SwathiPriya "Mining Association Rules between Sets of Items in e Databases" International Journal of Science and Modern Engineering (IJISME) ISSN: 2319-6386, Volume-1 2013.
 [3] IramFatima , Muhammad Fatima, Young-Koo Lee *" A Unified Framework for Activity Recognition-Based Behavior Analysis and Action Prediction in Smart Homes" 2013.
 [4] 4.Borgelt C, Kruse R. Induction of association rules: Apriori implementation[C]//Compstat. Physica-Verlag HD, 2002: 395-400.
 [5] Bay vo, Bac Le "Fast Algorithm For Generalized Association Rule" International Journal of Database Theory and Application 2009.
 [6] IkshwansuNautiyal, Madhu Sharma" Encryption using Elliptic Curve Cryptography using Java as Implementation tool", International Journal of Advanced Research in Computer Science and Software Engineering 2013 .
 [7] Kristin Lauter" The Advantages of Elliptic Curve Cryptography For Wireless security" IEEE Communication 2004.
 [8] ArchanaJadhav , VipulOswal , SagarMadane , HarshalZope , Vishal Hatmode "VNC Architecture Based Remote Desktop Access Through Android Mobile Phones" International Journal of Advanced Research in Computer and Communication Engineering 2012.
 [9] PriyadarshaniRaskar, Sejal Patel, PragatiBadhe "Virtual Network Computing- a Technique to control Android Phone Remotely" International Journal Engineering of And Computer Science 2014.
 [10] A. Manju, Dharsan A. Mahesh "A Desktop Viewer Solution For Mobile Computing Using Virtual Network Computing" International Journal of Communication Networking System 2012.