

FOG ASSISTED IOT CLOUD DATA SHARING WITH OFF LOADING SYSTEM

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ABSTRACT

The rapid advancement of the internet of things (IOT), the typical application of wireless body area networks (wbans) based smart healthcare has drawn wide attention from all sectors of society group chain based algorithm is implemented for data sharing of cloud network between the one IOT system to another system. Fog computing is designed by one fog devices and number of server for data sharing. The advanced solution of fog computing, software defines network (SDN) and block chain are leveraged in this work.

INTRODUCTION

Fog Computing Architecture the Fog computing arranges data, processing, and applications at network edges. IOT (Internet of Things) devices such as sensors have been actively used in to provide critical data during e.g., disaster response scenarios or in-home healthcare. Middleware featuring which is implemented for end-to-end security for cloud fog communication.

CLOUD COMPUTING

Cloud computing is a type of computing that relies on shared computing resources rather than having local servers or personal devices to handle applications. In its most simple description, cloud computing is taking services and moving them outside an organization's firewall. Applications, storage and other services are accessed via the Web. The services are delivered and used over the Internet and are paid for by the cloud customer on an as-needed or pay-per-use business model. The three types of cloud computing

Infrastructure as a Service (IaaS): A third party hosts elements of infrastructure, such as hardware, software, servers, and storage, also providing backup, security, and maintenance.

Software as a Service (SaaS): Using the cloud, software such as an internet browser or application is able to become a usable tool.

Platform as a Service (PaaS): The branch of cloud computing that allows users to develop, run, and manage applications without having to get caught up in code, storage, and infrastructure and so on. There are several types of PaaS. Every PaaS option is either public, private, or a hybrid mix of the two. Public PaaS is hosted in the cloud, and its infrastructure is managed by the provider. Private PaaS, on the other hand, is housed in onsite servers or private networks, and is maintained by the user. Hybrid PaaS uses elements from both public and private, and is capable of executing applications from multiple cloud infrastructures.

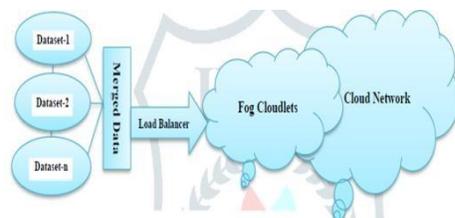


Figure1: system architecture

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Service-oriented architecture: A service-oriented architecture (SOA) is a style of software design where services are provided to the other component by through a communication protocol over a network. Software as a service (SaaS) is a software distribution model in which a third-party provider hosts applications and makes them available to customers over the Internet. SaaS is one of three main categories of cloud computing, alongside infrastructure as a service (IaaS) and platform as a service (PaaS).

System design:

- Login
- Registration
- Cloud fog end to end device
- Cloud server

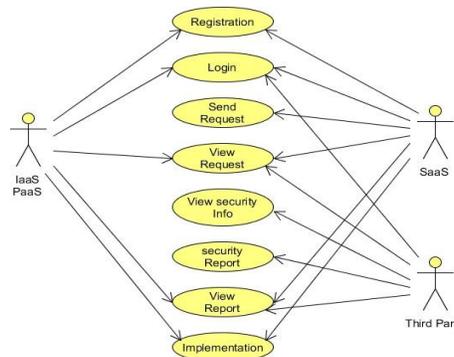


Figure 2: case diagram

SYSTEM ANALYSIS

Existing system: In existing system bilateral access control, fine-grained access control the both processes worked for to improve the security of cloud fog and cloud computing. fuzzy identity-based encryption (fibe) as the rudiment of has been implemented dual-policy encryption scheme has been implemented. ciphertext-policy attribute-based encryption with keyword search has been implemented.

Proposed system: In this project we proposed a homomorphic method to do the process of data sharing in cloud like storing downloading accessing these kind of process we involved. we tried to give as more secured process in data sharing on cloud fog computing and cloud computing Homomorphic encryption is a form of encryption allowing one to perform calculations on encrypted data without decrypting it first. The fine-grained access control in both sender-side and receiver-side. In fine-grained bilateral access control, end-devices require data from a set of authorized senders by defining the corresponding access structure.

SYSTEM TESTING:

The purpose of testing is to discover errors. Testing is the process of trying to discover every conceivable fault or weakness in a work product. It provides a way to check the functionality of components, sub-assemblies, assemblies and/or a finished product it is the process of exercising software with the intent of ensuring that the Software system meets its requirements and user expectations and does not fail in an unacceptable manner. There are various types of test. Each test type addresses a specific testing requirement.

Types of testing:

Unit testing, Integration testing and Functional testing, Unit testing, Integrated testing, Acceptance testing

INPUT DESIGN: The input design is the link between the information system and the user. It comprises the developing specification and procedures for data preparation and those steps are necessary to put transaction

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data in to a usable form for processing can be achieved by inspecting the computer to readdata from a written or printed document or it can occur by having people keying the data directly into the system.

OUTPUT DESIGN: A quality output is one, which meets the requirements of the end user and presents the information clearly. In any system results of processing are communicated to the users and to other system through outputs. In output design it is determined how the information is to be displaced for immediate need and also the hard copy output. It is the most important and direct source information tothe user. Efficient and intelligent output design improves the system’s relationship to help user decision- making.

RESULT DISCUSSION

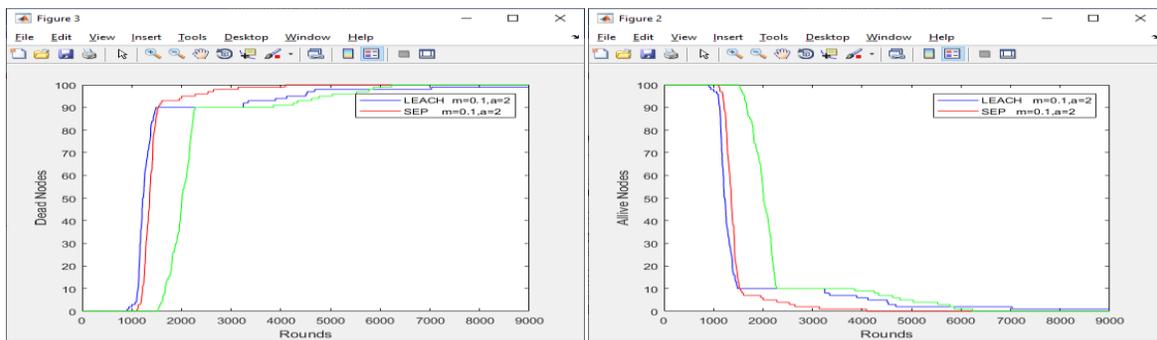


Figure 3: Comparison table Live nodes analysis comparison

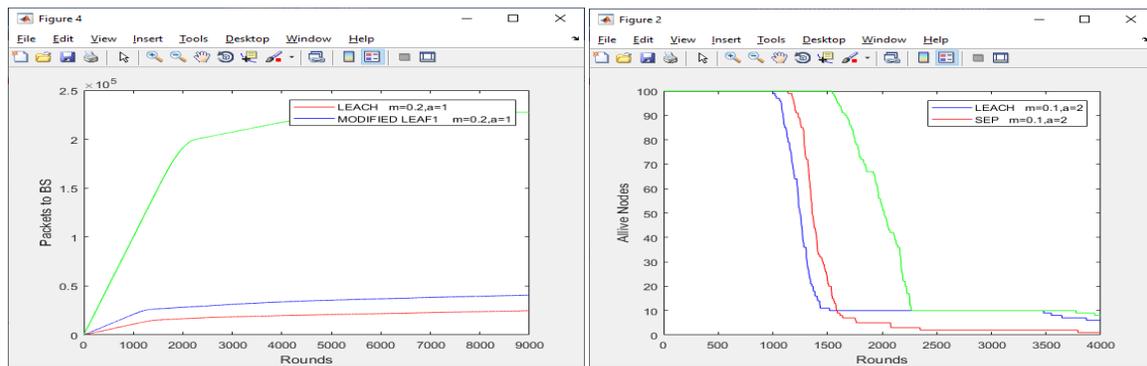


Figure 4: Packet to base station

CONCLUSION

The assistance of these devices, the wrongdoing information will be nourished to the information digging device for investigation and afterward comes about for two unique models will be recorded. With the assistance of the SAM instrument/tools. We will maintain a strategic distance from the distinction in the outcome and after that the subsequent information will be utilized for the finding the relations amongst those et cetera. Along these lines we will lessen false positives and false negatives in the field of the interruption identification framework utilizing the information mining in the field of wrongdoing information examination. Our proposed scheme addressed problems related to storage allocation for VMs. Resource sharing and the allocation of service offerings through VMs have considerably influenced new

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research opportunities. Several research issues related to these methods for cloud computing have been investigated, and we proposed USAS for VM allocation. We indicated the need for a unified dynamic resource allocation scheme that is sufficiently elastic to be easily adjusted to different storage requests. A future study could incorporate random early detection routers into our proposed scheme to different legitimate users' VM requests. An audit of the proposed storage scheme could also be conducted due to cloud users' lack of trust in the CSP. To regain this lost trust, CSP should provide a balanced architecture to secure privacy and the integrity of user data. Many schemes currently perform auditing. However, they do not assess storage schemes. Our pro-posed scheme is extremely suitable for auditing, and we further modify it to adapt other auditing techniques.

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