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Retaliation an incident of data crime using digital forensic proficiency on cloud territory

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ABSTRACT

Without some indication of empirical testing in relation to the ideas and processes connected with its generation, the courts make no presumption that digital evidence is credible, as they do with other sorts of evidence. Because of the issue of trustworthiness, courts pay special attention to how electronic evidence is gathered, particularly the process by which data is captured and kept. Previous process models tended to concentrate on a single aspect of digital forensic practice, such as law enforcement, and lacked a formal explanation. We believe that this approach has hampered the development of widely acknowledged standards and methods, which are critical in the field of digital forensics. This work proposes a generic process model as a first step toward building such a widely acknowledged standard for the collecting of digital evidence, which is a core digital forensic activity.

Keywords: Cloud data, digital forensic, intelligent forensics, and digital tactic, digital intelligence.

INTRODUCTION

It has a strong software development background and continues to concentrate its efforts on obtaining transcendent excellence in the creation and maintenance of software projects and products in a number of industries. ERP, banking, manufacturing, insurance, and a focus on multimedia projects are a few of them.These projects are common, and a big software development park in Kodambakkam, Chennai, India, has disseminated and executed them for clients all over the world. Cloud computing is a natural huge foundation processing volumes of facts from a number of different sources, including consumer data,wireless sensors, and statistical surveys. Cloud- based services such as Microsoft Azure, Google Cloud, and Amazon EC2 are feared by many businesses. Many companies are anticipated to provide cloud services in order to get into this lucrative market. In the near future, large corporations are projected to monopolise cloud computing renting cloud services from smaller or private firms is a growing trend in the market (Hosseinalipour and Dai, 2017).

The auction method might be one of the most plausible solutions modelling the owing to its convenience, related cloud resource allocation, adaptability, and excellent. Amazon Spot Instances are a basic auction-based capacity management system distribution that allows customers to bid for cloud servers they want. Most common phenomenon is cloud computing, which is gaining popularity due to rapid access and decreased storage and maintenance expenses. Many cloud service providers, such as Amazon, Ali Baba, Google Cloud, Azure, and others, provide consumers with on-demand services. Data and resources can be stored and accessed from anywhere at any time using the services. The key issue here is security, because once data is in the hands of cloud service providers (CSP), it is no longer within the control of the owner. Most CSPs employ Access Control Lists (ACLs) to guarantee that only authorized users have access to data. However (Wang et al. 2013), CSP isonly a semi-trusted party, and the data was rapidly rising on a daily basis. As a result of these security considerations, robust data confidentiality and integrity solutions are needed. Cloud servers can be divided into many types in current cloud networks based on their hardware and software specifications. In order to accommodate a variety of consumer requests at the same time, a collection of various sorts. As a result, earlier models only took into account single kind of server and workload failed to fully capture market realities (Ramsaran, 2014).

Customers can join and exit the market at any time, whereas cloud servers frequently swing between active and idle states. Sequential auctions, rather than single-round auctions, are more appropriate for capturing this dynamism. Organizing a succession of single- round auctions over a period of time is one straightforward technique. When single- round true auctions is expanded to sequential auctions, however, they frequently lose their truthfulness attribute. The "truthfulness" feature assures that buyers cannot manipulate their genuine appraisals of items in order to obtain bigger rewards. This principle motivates us to look beyond single-round auction solutions in searchof true sequential auction solutions. The efforts that are the most similar to ours are those that build a new pricing system that is built upon categorizing users into separate groups based on their characteristics. An honest cloud auction mechanism is constructed on top of this pricing language. On the other hand, the basic version looks at single type of cloud server. The planned architecture of the authors has been expanded to incorporate a variety of tasks and servers. However, to obtain the allocation strategy, the resultant model needs computing a complicated payment function for each work that arrives, as well as solving an optimization problem when dealing with these issues arise in actual resource allocation in cloud servers with a greater task frequency.

The majority of the present research has concentrated on using combination auctions to allocate cloud resources. Although combination auctions can theoretically ensure some desirable features, Combination auctions are known to be NP-hard to discover the winner and pay out, rendering them unsuitable In fast-paced marketplaces with immediate requirements, such as cloud networks. A creative approach accounts for a variety of cloud servers as well as the diversity ofcustomer expectations. It also analyses a sequential auction method in which the winner is determined by set of single-round optimization problems. True selling mechanism is investigated and proposed (Bernstein et al. 2009). This is one of the first studies to look at interactions between clients and cloud providers, as well as interactions between cloud providers themselves. Delayed entrance problem is edge cloud budgetary control is among the most difficult problems to solve. Systems that have been disregarded in the majority of the work discussed.

This article discusses the acquisition of different resources out of a range of online providers who are in crime. This accomplished through the use of dynamic pricing for these resources (Gao et al. 2011). The problem is a combinatorial auction since we consider various resources to be acquired from many cloud suppliers participating in an auction. Simulations utilizing technique in regards to costs obtained numerous cloud suppliers indicate that it is successful in the acquisition of multiple resources in the cloud computing sector randomized auction's effectiveness.

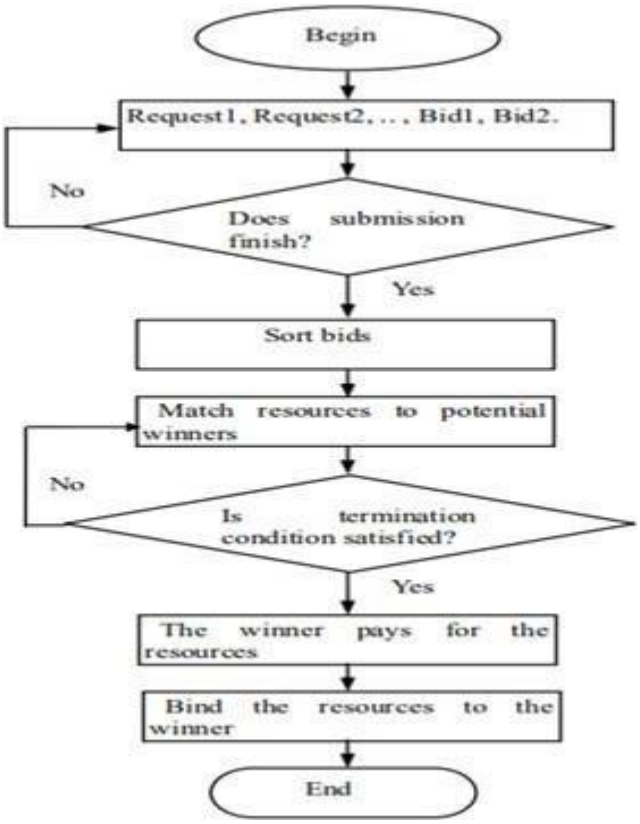
Digital Forensics

Digital forensics refers to the process of preserving, detecting, retrieving, and documenting computer evidence that can be used in court (Rao and Prasad, 2012). It's the science of extracting data from digital media like a computer, smartphone, server, or network. It provides

forensic investigators with the most up-to-date techniques and resources for solving complicated digital cases. Digital forensics helps forensic investigators analyse, evaluate, identify, and preserve digital evidence stored on a variety of electronic devices. Intelligent forensics is an inter-disciplinary approach to solving a case that takes advantage of technological improvements and makes better use of resources. Artificial intelligence, computer modelling, and social network analysis are all used in intelligent forensics to focus digital investigations and reduce the amount of time spent looking for digital evidence. We believe that intelligent forensics is a method that can be utilised to analyse extremely complex events. Before and after an incident, intelligent forensics can be employed both proactively and reactively. The proactive application of cognitive forensics tries to detect dangers before an incident happens.

This is used in intelligence gathering scenarios by the Future Internet 2014, 6591 secret/military services and law enforcement agencies (especially in the UK/USA/ Europe) and is beyond the scope of our discussion. Intelligent forensics techniques can be employed reactively as part of a conventional investigation to provide extra intelligence (Zhang et al. 2012), which can guide the comprehensive study of the data sources. At this point, a variety of approaches, such as social network analysis (SNA) and artificial intelligence (AI), can be applied (AI). Following that, we'll give a quick summary of the importance of these tactics in a digital inquiry. In order to deal with the difficulties of massive data sources of digital evidence, there are a number of possible intelligent forensic solutions. The solutions are aimed at either reducing the size of the inquiry (for example, by utilising hashing to exclude stable or non-changed data sources) or improving the investigation tools (for example, by employing intelligent forensics). Enhanced techniques and approaches are used in intelligent forensics. In order to deal with the difficulties of massive data sources of digital evidence, there are a number of possible intelligent forensic solutions. The solutions either focus on reducing the extent of the inquiry, improving the investigation tools, or employing intelligent forensics. Enhanced techniques and approaches are used in intelligent forensics.

FLOW CHART FOR INDENTIFING THE CRIME (BIDS)



Intelligent forensic

Forensic science is the application of natural and physical science methods to criminal and civil law cases (Min et al. 2012). The effectiveness of a law enforcement organization to battle criminal groups depends on its ability to use intelligence effectively. Intelligence analysis also gives the agency with the knowledge it needs to manage its resources effectively. Intelligence analysts dissect data into its constituent parts and contribute to plans of action to better analyses, mitigate, and neutralize risks. This implies they are a part of our nation's first line of defense. Intelligence analysis supports investigations by assisting in the targeting of available resources and the identification of information gaps, allowing the inquiry to be more precisely focused. It also aids in avoiding duplication of effort and straying into irrelevant areas (Lampe et al. 2012).

HOW TO IDENTIFY THE INCIDENT PROCEDURE:

- Step1: Client yield requests and bids.
- Step2: If submission finishes, continue to Step 3. Otherwise repeat Steps 1 and 2.
- Step3: Sort bids.
- Step4: Using auction process, determine winner and assign the resources to the possible winners.
- Step5: Continue to Step 6 if the auction's closure condition is met. Otherwise, go back to step one. Based on the auction model used, the specific condition might be that all resources have been assigned and all requests have been fulfilled, for example.
- Step6: The resources are paid for through victor; the victory price is determined by the auction type used.
- Step7: Bind the assets to the winningcustomer.

CONCLUSION

In this work, some indication of empirical testing in relation to the ideas and processes connected with its generation, the courts make no presumption that digital evidence is credible, as they do with other sorts of evidence. Because of the issue of trustworthiness, courts pay special attention to how electronic evidence is gathered, particularly the process by which data is captured and kept. We believe that this approach has hampered the development of widely acknowledged standards and methods, which are critical in the field of digital forensics. This study proposes a generic process model as a first step toward creating such a widely acknowledged standard for a key digital forensic activity: digital evidence collecting.

Conflicts of interest: The authors stated that no conflicts of interest.

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