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CLOUD-BASED MULTIMEDIA CONTENT COPY DETECTION SYSTEM

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ABSTRACT
Web has million of multimedia contents such as videos and images. It may happen that each and every multimedia content has duplicated copies. There are lots of mechanism available that provides easy way for editing, publishing or uploading multimedia contents so that it may leads to security problem and also reduplicating the identity of content owner and also loss of revenue to the content owner. So that this system can be used to protect the Illegally redistributed multimedia contents such as 3D videos or images. The main goal of this system is to provide cost efficiency ,rapid development ,scalability and elasticity to accommodate varying workloads and improve the accuracy as well as computational efficiency and also the reliability. This system can be deploy on public cloud. And this System show high accuracy for more than 11,000 videos and one million of images.

KEYWORDS: Reduplication, Signature,Video Copy Dtetection, Matching, Public Cloud.

INTRODUCTION
Now a days, multimedia contents and availability of free online hosting sites have made it easy to duplicating copyrighted material, like images and videos for finding Illegally made copies over internet is complex. In this system, there are three methods which are present first are Crawler to downloads the multimedia contents, Signature creation method for downloaded multimedia contents, Distributed matching engine to match the multimedia contents. This system can be deployed on public cloud. It is helpful for all content owner and also public cloud supports the different multimedia contents. This can be used to utilize the computing resource on their demand. The contribution of this paper are as follows Parallel crawler to downloads thousands of multimedia contents from various online hosting sites. The 64-bit division algorithm can be used to create signature.This method create signature based on the downloaded multimedia contents. The signature is in the form of character and numbers .This created signature is stored in distributed index.Another method to match the match the signature which is stored in distributed index. The Depth first search algorithm is used to matching multimedia contents. The reference signature and query signature is compared or matched with each other, If this signature is matched in distributed index then the system gives notification to content owner and malicious user and if signature is not matched then through reference register it stored in distributed index.

BACKGROUND
1) Complete cloud system for Multimedia Content Protection.
2) Novel Method for Creating the signature for images and videos.
3) Our design leverages cloud infrastructure to provide the cost efficiency, deployment, Scalability and elasticity to accommodate varying the workloads.
4) We provide the novel system for multimedia content protection system on cloud.

PROPOSED SYSTEM
The main goal of this proposed system is to detect malicious users from uploading any multimedia including 2D videos, 3D videos, image on hosting site then by creating signature of videos, images and storing it in the database with a notification to alert the content owner and malicious user
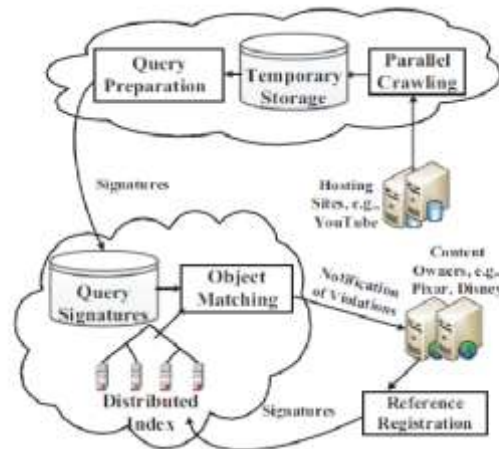
SYSTEM ARCHITECTURE

In this design of the system, the three main parties are available which are hosting sites, content owner and service provider.

Fig. 1. Proposed cloud-based multimedia content copy detection system[1].

Following Components are as follows**:**

1) **Hosting Site:** Now a days, there are number of online hosting sites available some of them slider share, Training videos, Confidential videos data, YouTube. From hosting sites downloads multimedia contents. Their is no any limitation for downloading multimedia contents.

2) **Temporary Storage:** All downloaded multimedia contents stored in temporary storage .The Map reduce algorithm is used for mapping and reducing the length of multimedia contents.

3) **Query Preparation:** Prepared the all multimedia contents which are stored in temporary storage and then creates its signature. For creating the signature of multimedia contents 64-bit division algorithm are used.

4) **Query Signature**: All created signature stored in the query signature.

5) **Object Matching:** Match the query signature versus reference signature in the distribute index to find the potential copies or videos and images, then it sends notification to content owner and malicious user if potential copies are found. Here DFS algorithm are used.

6) **Distributed Index:** Maintain the signature of object that need to be protected. It allows to stored more contents.

7) **Reference Registered:** Stored signature that content owner are interested for protecting in distributed index

MODULE DESCRIPTION

1) **Uploading the Objects**

The content owner uploads the multimedia objects on hosting sites.This content owner can be able to upload all image format such as jpeg,png,bmp,tiffetc and also the videos.

2) **Signature Creation**

The proposed system is designed to handle different types of multimedia objects.For signature creation 64-bit division algorithm is used that is triple DES.The triple DES algorithm creates signature of multimedia contents.This created signature is combination of characters, symbols and numbers.

3) **Distributed Matching Engine**

The distributed matching engine is used to maintains all signature which are stored in query signature. It randomly maintains all signatures.

4) **Matching Object**

The matching object is used to match the query signature to the reference signature which are stored in distributed index. For that matching of objects Depth First Search algorithm is used. This DFS algorithm checks one by one signature in distributed index.

5) **Notification**

If the signature is matched in object matching then the system will give notification to the that user through mail.

FUTURE SCOPE
1) Our current system is optimized for batch processing. Thus, it may not be suitable for online detection of illegally distributed multimedia streams of live events such as soccer games.
2) In live events, only small segments of the video are available and immediate detection of copyright infringement is crucial to minimize financial losses.
3) To support online detection, the matching engine of our system needs to be implemented using a distributed programming framework that supports online processing, such as Spark.
4) A multiview plus depth video has multiple texture and depth components, which allow users to view a scene from different angles. Signatures for such videos would need to capture this complexity, while being efficient to compute, compare, and store.

CONCLUSION
In this paper, we present a content based copy detection system. When the copyrighted elements are uploading on the hosting site then there is lot's of loss to the content owner so that to avoid this loss or to avoid the copyrighted elements we present this system for multimedia content protection. This system is based on creation of signature using 64 bit division algorithm which is help to finding duplicated multimedia contents over the web. This system is much effective than other existing system and it also provides the complexity accuracy, computation efficiency, scalability and reliability. This system supports all types of multimedia contents formats and formats including the jpeg,mpeg,mp4,FLA,But the future work is extended by making audio formats

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