Cost Efficient Data Backup

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Abstract- *The main objective of this project is to enhance the data storage security during disaster. So that IaaS (Infrastructure as a Service) methodology will be implemented here. This is to provide prior security for the storage devices during malware attacks and also during disaster. Problem that may occur in remote monitoring such as the number of objects to be monitored and how fast, how much data to be transmitted to the data centre to be processed properly. This study proposes using a cloud computing infrastructure as processing centre in the remote sensing data. This study focuses on the situation for sensing on the environment condition and disaster early detection.*

Keywords- Disaster analysis, cloud formation, data preservation, executing IP conflict, roll over data.

I. INTRODUCTION

Most of those applications are relying on data centre networks (DCNs) to store and process their huge data. The disasters can be roughly classified into three categories, i.e., predictable disasters, unpredictable disasters, and human Made attacks, in which predictable disasters (e.g. hurricane, flood, and tsunami) can be forecasted before hand by atmospheric and environmental conditions. Given geo-distributed DCNs and a ε-time early warning disaster, for the data hosted at the DCN nodes under risk, we first need to determine the backup DCNs and transmission paths, which will consume time for configuring network. After that data backup can be implemented. Thus, the early warning time should be divided into two parts, i.e., the time for backing up data and that for configuring network (.To finish the data backup with in the early warning time, the trade off between backup cost and network resource consumption needs to be taken into account.

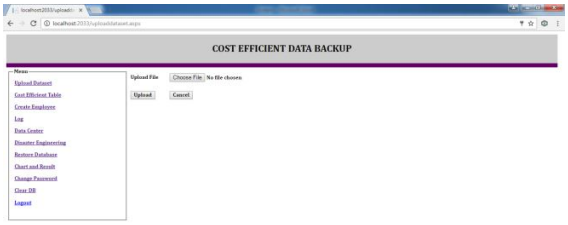
II. EXISTING SYSTEM

The existing method considers backing up the data in DCNs that are affected by a ε-EWD to other safe DCNs. The objective is to minimize the total backup cost as detailed with the optimal selections of the backup DNCs and data transmission paths, subject to data in DCNs under risk should be backed up within the ε early warning time which includes the network configure time and back up time. Given geo-distributed DCNs and a early warning time ε, for the data in the DCNs that affected by such disaster, the existing system formulate the optimal DCN data backup problem as an ILP problem.

III. PROPOSED SYSTEM

The proposed system uses a cloud computing infrastructure as processing centre in the remote sensing data. This study focuses on the situation for sensing on the environment condition and disaster early detection.

This study proposes to build the conceptual and also prototype model in a comprehensive manner from the remote terminal unit until development method for data retrieval. We also propose using FTR-HTTP method to guarantee the delivery from remote client to server.

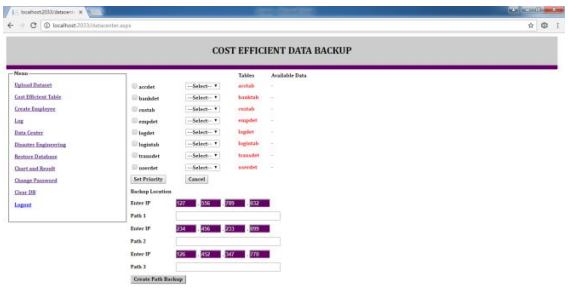


IV. WORKING

Initially, the database is uploaded. The dataset is split into different tables accordingly. The split tables are given priority from the set of priorities of 1 to 8.The priority is set to the tables accordingly in which order we want to backup the data in that milliseconds of the occurrence of the disaster. After the priority is set the IP address is included, and backup location. During the earthquake occurrence, the accelerometer sensor in phones, detects the shake and sends a Bluetooth file to the server computer, once the file is received with coordinates, the backup is made immediately to the prescribed location. But also, by default every 10 seconds the data is backed up. Finally after the disaster the data which is backed up in the location can be recovered back.

V. METHODOLOGY

Cloud computing, based on virtualization, takes a very different approach to disaster recovery. This entire virtual server can be copied or backed up to an offsite data centre and spun up on a virtual host in a matter of minutes. Since the virtual server is hardware independent, the operating system, applications, patches and data can be safely and accurately transferred from one data centre to a second data centre without the burden of reloading each component of the server. With cloud computing, disaster recovery becomes much more cost-effective with significantly faster recovery times. One of the added benefits of disaster recovery with cloud computing is the ability to finely tune the costs and performance for the DR platform. Applications and servers that are deemed less critical in a disaster can be tuned down with less resources, while assuring that the most critical applications get the resources they need to keep the business running through the disaster.



VI. FUTURE ENHANCEMENT

Security is always a concern, especially when running environments like windows that are so familiar the world over. Microsoft has a reasonable patch management solution but now in the cloud this effectively can be delivered in minutes rather than days. In many cases, some organizations have the view that cloud solutions outsourcing and managed services are less secure. What the company is failing to recognize is that they are probably already using such services without consideration. Services like server, Message labs and other such services involve messages being sent to a third party, scanned then forwarded back into the organizations localized mail stream. This would undoubtedly change most people's perspective as a well run cloud solution far outweighs the perception of insecurity and loss of control. In fact, in many cases the solution is to build better hardware, firmer controls and more efficient infrastructure at a lower cost. In the future, more cloud adoption is certain, this year alone the move to the cloud by many business has been phenomenal, so much so that some cloud business have grown by over 200%. Large vendors see this as the growing model for software and services in the future so more focus by the vendors is afforded.

VII. CONCLUSION

The construction drastically reduces the communication and storage overhead as compared to the traditional replication-based file distribution techniques. By utilizing the homomorphism token with distributed verification of erasure-coded data, our scheme achieves the storage correctness insurance as well as data error localization: whenever data corruption has been detected during the storage correctness verification, our scheme can almost guarantee the simultaneous localization of data errors, i.e., the identification of the misbehaving server(s).The project works according to the restrictions provided in their respective browsers.

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