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ABSTRACT—With the advent of the cloud computing technology the user can operate the data and perform the computations anywhere, anytime in the world. Cloud computing provides highly scalable services to be easily consumed over the Internet on an as-needed basis. The interest thing in cloud computing has been motivated by many factors such as the low cost of system hardware, the increase in computing power and storage capacity and the massive growth in data size generated by digital media, Web authoring, scientific instruments, physical simulations, etc. To this end, still the main challenge in the cloud is how to effectively store, query, analyse, and utilize these immense datasets. To provide the solution to this problem in this paper a novel highly decentralized software framework called Transpose-Minify Framework is used for effectively managing the data.

Keywords— map, reduce, data processing, transpose, minify.

1, INTRODUCTION

Cloud computing has been coined as an umbrella term to describe a category of sophisticated on-demand computing services initially offered by commercial providers, such as Amazon, Google, and Microsoft. It denotes a model on which a computing infrastructure is viewed as a cloud from which businesses and individuals access applications from anywhere in the world on demand. The main principle behind this model is offering computing, storage, and software “as a service. In addition to raw computing and storage, cloud computing providers usually offer a broad range of software services. They also include APIs and development tools that allow developers to build seamlessly scalable applications upon their services. Indeed, the long-held dream of delivering computing as a utility has been realized with the advent of cloud computing. Cloud computing provides software as a service (saas), Platform as a service(paas), Infrastructure as a service(Iaas). Cloud provides feature such as pay for usage (metering and billing), elasticity, self service, and customization. Further cloud provides deployment models such as Private cloud, Public cloud, Hybrid cloud. The important feature offered by the cloud is the users data resides anywhere in the world and which can be operated remotely in unknown machine by the user. In the day-to-day life the organizations produce large amount of data. The interest thing in cloud computing has been motivated by many factors such as the low cost of system hardware, the increase in computing power and storage capacity and the massive growth in data size generated by digital media(images, video, audio), Web authoring, scientific instruments, physical simulations, etc. To this end, still the main challenge in the cloud is how to effectively store, query, analyze, and utilize these immense datasets.



2, TRANSPOSE-MINIFY MODEL

Transpose-Minify is a software framework for solving many large-scale computing problems.. By using this programming model large set of data sets can be processed. Transpose-Minify has the two main functions Transpose and Minify.

2.1 Transpose Function

This function performs the searching and sorting of the similar data items.

2.2 Minify Function

This procedure performs the summary operation.

The Transpose-Minify provides many useful features such as simplicity, fault tolerance, and scalability. It is the most powerful realization of data-intensive cloud computing programming. It is often advocated as an easier-to-use, efficient and reliable replacement for the traditional data intensive programming model for cloud computing. It is proposed to form the basis of the data-centre software stack. The Transpose-Minify can be applied in many fields such as data and compute-intensive applications, machine learning, graphic programming, multi-core programming.

3, SYSTEM ANALYSIS

3.1 Existing System

In the past for managing the large amount data produced by the organization the traditional data intensive system was used which is not suitable for the cloud computing due to the bottleneck of the Internet when transferring large amounts of data to a distant CPU. The drawbacks of the traditional method are it is lack in scalability and it has no enough space to store large amount of data. And also it does not support the query processing.

4, MAIN FEATURES OF TRANSPOSE-MINIFY FRAMEWORK

4.1 Simplicity:

The Transpose-Minify runtime is responsible for parallelization and concurrency control, this allows programmers to easily design parallel and distributed applications.

4.2 Manageability:

It provides the two level of management

- (a) To manage the input data- prepare the data to execute.
- (b) To manage the output data- to get the reduced data.

4.3 Scalability:



When the node increases then the performance of the Transpose-Minify potentially increases.

5, TRANSPOSE-MINIFY IMPLEMENTATION

The Transpose-Minify framework uses the sculptor- Serf architecture (Fig.1).

5.1 Transpose step:

The sculptor node takes the input, divides it into smaller sub-problems, and distributes them to Serf nodes. A Serf node may do this again in turn, leading to a multi-level tree structure. The Serf node processes the smaller problem, and passes the answer back to its sculptor node.

5.2 Minify step:

The sculptor node then collects the answers to all the sub-problems and combines them in some way to form the output – the answer to the problem it was originally trying to solve.

6, IMPLEMENTATION OF TRANSPOSE-MINIFY

6.1 Steps

- Prepare the input from the user.
- Then the input is send to the sculptor of the architecture.
- The sculptor segments the input and assigns it to all the Serf nodes.
- The Serf nodes process the inputs and produce the relevant output.

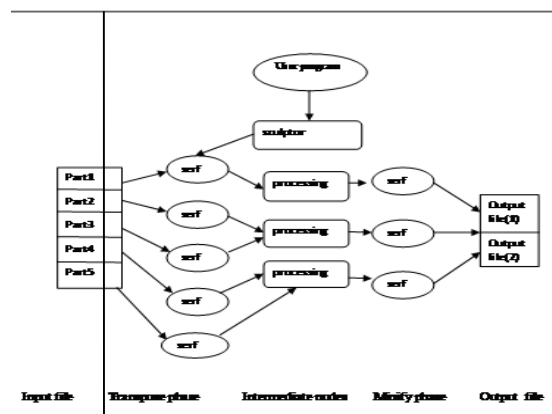


Figure.1 Sculptor- Serf architecture



VIII. CONCLUSION AND FUTUREWORK

In this paper introduces the Transpose-Minify Framework Which is important programming model for next-generation distributed systems, namely cloud computing.

In this paper presented the different impacts of the Transpose-Minify model in the computer science discipline, along with different efforts around the world. It can be observed that while there has been a lot of effort in the development of different implementations of Transpose-Minify, there is still more to be achieved in terms of Transpose-Minify optimizations and implementing this simple model indifferent areas. The future work of this paper is performing the optimizations using the Transpose-Minify Frame work

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BIOGRAPHY



Authors have the option to publish a biography together with the paper, with the academic qualification, past and present positions, research interests, awards, etc. This increases the profile of the authors and is well received by international readers