Review on Data Migration among Cloud Servers

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Abstract: in this paper we designate the review related to concept and ideas of data migration process on different cloud servers or migration between two cloud servers. Cloud Migration is considered a major platform to manage the cloud that face severe problems on time of data transferring from an enterprise server to a server which make cloud in different places. Cloud acts as an interface via that businesses can access information in a digital atmosphere. For that reason, soft functioning of it is dependent basically on how will prepare and expert cloud vendors in this field. Our paper enlightens the research scholars to identify the research gap on Cloud Migration process along with challenges.

Keywords: Cloud Computing, Cloud Migration, Cloud Servers.

1. Introduction

Cloud Migration is considered a major platform to manage the cloud that face severe problems on time of data transferring from an enterprise server to a server which make cloud in different places. Cloud acts as an interface via that businesses can access information in a digital atmosphere. For that reason, soft functioning of it is dependent basically on how will prepare and expert cloud vendors in this field. Another area of some significance that does not involve any specific technology is data governance. Some companies had their migration directly tied to their data governance initiative, some had governance projects that weren't associated with the migration, and others had no data governance in place. The last of these were 10% less likely to bring in on time and on budget projects than those who had some experience of data governance even if that governance was not associated with the migration project. In fact, they recommend that if user have not previously opted for data governance then a data migration project is a good place to start because the work that need to doprofile the data, cleanse it, possibly archive and mask itare all exactly the same sorts of things that would do within a governance initiative, plus other functions such as building up a business glossary.

As already explained in the abstract that the cloud computing services have been one of the most booming fields of the software development and engineering field, there are several service providers in this field and all of them have certain benefits which are called advantages and certain disadvantages which are called drawbacks. Since the time of the launch of different cloud computing services, critics also came into action. Critics are someone who always tell that what is better and what is not. Critics are present in each and every field whether it is discussed about the entertainment or data services or anything else. Hence as the AMAZON became thefirst to launch the cloud computing services, their critics also came into action. In this chapter literature survey related to data migration is discussed. " Most of the previous tools use a specialized protocol to communicate between the client and the storage server. An alternate approach is to target a more generic interface, such as that used by cloud storage provider. 'Cumulus' tries to be network-friendly like sync based tools, while using only a generic put storage interface."

2. Review on Work Related to Cloud Migration

"Mohammad Hajjat, Xin Sun, Yu-Wei Eric Sung, David Maltz, Sanjay Rao" [25] resolve the issue of utilizing the TCP protocol bringing. The migration may be possible by utilizing any platform but the main

issue is whether entire information will be moved or some information loss can occur. The author presented that to design an IP which does not have a connection with the server at which the user is presently in, can utilize the IaaS Services of the cloud. IAAS is the Infrastructure as a Service which is one of the fundamental of the cloud platform. Presently to configure IAAS at framework, there will be need to buy the authorized version of the cloud space.

"VasiliosAndrikopoulos, et.al" [13] presents a system that supports the process of migration in which main factor is about cost of system. The author proposed a three tier system that fulfills all the requirements based on cost assumption. The author used the Windows Azure policy in developing prototyping model. Furthermore, the capacity to add requirements for multiple service types, e.g., data storage and networking, is envisioned to be provided, facilitating the decision making in migration types beyond the offloading of the application stack on a VM.

"Haitao Li, et.al" [10] proposed relocation methodologies (dynamic, receptive and brilliant systems), essentially taking into account the current data, can make the hybrid cloud assisted VOD deployment save up to 30% transfer speed cost contrasted with the Clients/Server mode. In addition to that, it can handle the flash crowd traffic with low cost. The author also discussed that the cost of cloud and bandwidth of selected server play the important role in saving cost while the cloud storage size and cloud substance update procedure assume the key parts in the client experience enhancement.

R Maggiani, [4] proposed the SAAS based infrastructure for the development of services. Large number of organizations and lot of institutions are simply starting to understand the advantages of cloud-based applications that have generally required site authorizing, establishment, and support. Cloud Computing can be a private function application, a foundation on which these applications (and numerous others) can run, an arrangement of services that offer the benefits of large amount of resource related to computing, and the capacity to store a lot of information remotely.

"J Srinivas", [6] proposed a unique algorithm for the migration of the data from one end to another. The author also discussed about the available online tools for the same purpose.

"E.Gopi Krishna et.al", [5] proposed a versatile information migration service that utilize automated pattern matching procedures to handle the scheme is equalities in cloud and venture information models. The proposedframework likewise utilizes versatile grid base for on-interest information access, standards driven transformation and on-the-fly integration of conveyed information sources for movement.

"R. Vinodha et.al", [14] proposed a method for data migration in large databases. The proposed system uses the concept of sever implementation with unique attributes, encryption as well as decryption. In this proposed procedure encryption calculation is excessively difficult, making it impossible to follow or hack remotely. Server plays essential role in verification process.

Lixian Zing et.al, [7] proposed a bank system in which they will study the process and need of each module in data migration process. Introduce the basic functions of each module in data migration process and the test procedures after data migration. The process of data migration has two steps.i. First, tables to be migrated, primary key and foreign key are created in object database. ii. Then data in source database are migrated into object database. Database consists of manpower and work is mainly dependent manually.

QingniShen et.al, [10] presented the threats regarding data migration, and then secondly they propose the security algorithm in data migration. Then finally they implemented the execution based on Hadoop Distributed File System and author conducted a sequence of tests to evaluate proposed model.

"Xia Kai, [1] proposed out what records need to move, and after that figure out what reference these records have. Expert records and their references from the source client database. Import reference records into objective client database initially, then import proposed records. Subsequent to importing records, guarantee that there are no errors. [8]. Song Penget.al. [3] Proposed a system in which data migration is done

using outer join in which the ON condition stipulates which lines will be returned in the join, while the WHERE condition goes about as a filter on the lines that really were returned. [9].

Teodrovic, [2] proposed the BCO procedure for the utilization of optimization issues. The BCO represents to the new metaheuristic fit to take care of difficult combinatorial optimization issues. The artificial bee colony settlement carries on in part indistinguishable, and partly uniquely in contrast to honey bee colonies in nature. Not with standing proposing the BCO as another met heuristic.

ArunSwaminathan, [11], presents what is required out of the migration, proper migration design and predicting the possible issues that might come up during the migration can bring down the chances of failures drastically."

"ChaimFershtman and Neil Gandal"[12] Migration to the Cloud Ecosystem: Ushering in a New Generation of Platform Competition, forthcoming, COMMUNICATIONS & STRATEGIES, no. 85, 2012", discussed the eco-friendly migration of information through the progressed scripting framework for an example of SQL SERVER 08 it can encrypt the information alongside the architecture and it consume a less amount of energy additionally an advanced script can be run over the cloud. For this proposal to happen, other cloud services began working on it.

3. Research Gap and Contribution of Proposed Research Work:

3.1 Existing work

i. "XML" arrangement and treatment can be very unpredictable or complex in nature thus; PHP has given a few strategies for treatment "XML". Every strategy has an inconsistent level of complexity, yet perhaps the most straightforward of them all, is the appropriately named, Simple "XML"

ii. Requires a central study and understanding of basic "XML" structures. In the event that user does not have proper knowledge of this, it is strongly recommended brushing up on "XML" structures and how it can be utilized.

iii. "XML" is utilized in many aspect of web development, frequently to make less complex information sharing and storage. "Through "XML", information can be store in separate "XML" documents.

iv. In the valid globe, computer system and databases contain information in incompatible formats.

v. "XML" information is kept in plain text format. These provide a hardware and software self-determining way of storing the information.

vi. This makes it much simpler to produce information that can be shared by various applications.

vii. One of the most time consuming challenge for developers is to swap data between irreconcilable over the internet. viii. Information exchange as "XML" greatly reduces this complication, since the information can be utilized by various applications.

3.2 Scope of Research

i. Extensible Markup Language is a simple and powerful information knowledge tool for Structuring texts and important for their well-formed and validity conditions.

ii. LINQ to XML provides an in-memory XML programming interface that leverages the .NET Language-Integrated Query (LINQ) Framework. LINQ to XML uses the latest .NET Framework language capabilities and is comparable to an updated, redesigned Document Object Model (DOM) XML programming interface.

iii. The LINQ family of technologies provides a consistent query experience for objects (LINQ to Objects), relational databases (LINQ to SQL), and XML (LINQ to XML). iv. Use of Extensible Markup Language is more and more rampant in medical informatics projects. Many of these project involve, at some point, the contact between an examiner and

specialized XML documents for the purpose of annotate the XML data. A simple toolkit is provided to give a hand these researchers. The process is simple, yet fully efficient, and can easily be modified to the needs of the researcher. All of the resources for this toolkit are freely obtainable

4. Migration challenges

Migration challenges	Description
Business factors	• Costs • Existing investments in IT • Data security • Regulations • Provisioning
Technical factors	• Existing infrastructure • Security architecture • Complexity • Network and support • IT skills • Service Level Agreements (SLAs)

5. Conclusion

Cloud Migration is one of the highly conversed points where cloud supervisors face extreme problems at the time of data migration from an organization's server to a server that creates cloud somewhere else. This problem occurs because cloud acts as an interface through which associations can utilize information in a virtual environment. Subsequently, smooth working of it depends basically on how very much prepared and skilled cloud suppliers are here. Additionally, if information movement is not done properly and legitimately, it can offer ascent to issues concerning information and cloud security of organizations assets that principally include information.

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