CLOUD SERVICES FOR SUPPORTING AN APPLICATION'S INITIAL DEPLOYMENT AND RUNTIME MIGRATION

Cloud Services for Supporting an Application's Initial Deployment and Runtime Migration

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Abstract – The cloud computing paradigm has achieved widespread adoption in recent years. Its success is due largely to customers' ability to use services on demand with a pay-as-you go pricing model, which has proved convenient in many respects. Low costs and high flexibility make migrating to the cloud compelling. Despite its obvious advantages, however, many companies hesitate to "move to the cloud," mainly because of concerns related to service availability, data lock-in, and legal uncertainties.1 Lock in is particularly problematic. For one thing, even though public cloud availability is generally high, outages still occur.2 Businesses locked into such a cloud are essentially at a standstill until the cloud is back online. Moreover, public cloud providers generally don't guarantee particular service level agreements (SLAs)3 — that is, businesses locked into a cloud have no guarantees that it will continue to provide the required quality of service (QoS). Finally, most public cloud providers' terms of service let that provider unilaterally change pricing at any time. Hence, a business locked into a cloud has no mid- or long term control over its own IT costs. At the core of all these problems, we can identify a need for businesses to permanently monitor the cloud they're using and be able to rapidly "change horses" — that is, migrate to a different cloud if they discover problems or if their estimates predict future issues.

Key Terms : Cloud, VMWare, flooding, Amazon.

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I. INTRODUCTION

Needs for businesses to permanently monitor the cloud they're using and be able to rapidly "change horses" that is, migrate to a different cloud if they discover problems or if their estimates predict future issues. Migrate cloud providers are flooding the market with a confusing body of services, including compute services such as Amazon elastic compute cloud(EC2) and VM Ware V cloud, or key-value stores, such as Amazon simple storage service. We introduce the concept of a Meta cloud that incorporates design time and run time components. This meta cloud would abstract away from existing offering's technical incompatabilities, thus mitigating vendor lock-in. It helps users find the right set of cloud services for a particular usecase and supports an applications initial deployment and runtime migration. The emergence of yet more cloud offerings from a multitude of service providers calls for a meta cloud to smoothen the edges of the jagged cloud landscape. This meta cloud could solve the vendor lock-in problems that current public and hybrid cloud users face.

II. RELATED WORK

Cloud providers are flooding the market with a confusing body of services, including computer services such as the Amazon Elastic Compute Cloud (EC2) and VMware v Cloud, or key-value stores,

such as the Amazon Simple Storage Service (S3). Some of these services are conceptually comparable to each other, whereas others are vastly different, but they're all, ultimately, technically incompatible and follow no standards but their own. To further complicate the situation, many companies not (only) build on public clouds for their cloud computing needs, but combine public offerings with their own private clouds, leading to so-called hybrid clouds. Here, we introduce the concept of a meta cloud that incorporates design time and runtime components. This meta cloud would abstract away from existing offerings' technical incompatibilities, thus mitigating vendor lock-in. It helps users find the right set of cloud services for a particular use case and supports an application's initial deployment and runtime migration.

III. EXPERIMENTAL RESULTS

In this paper during the registration process if a User or Owner or TTP (trusted third party) or CSP(cloud service provider) have to register first, then only he/she has to access the data base. And then any of the above mentioned person have to login, they should login by giving their username and password.
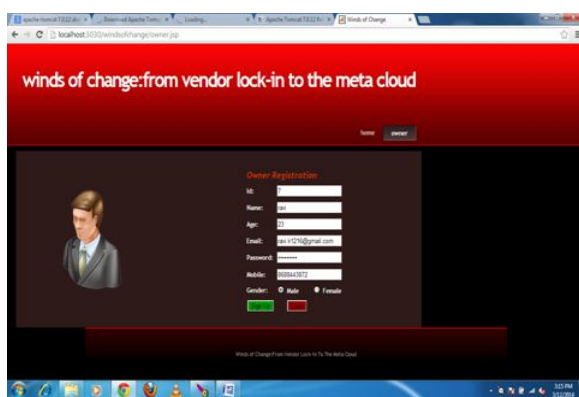

Fig-1 : Registration Page

And then Owner uploads a file(along with meta data) into cloud,before it gets uploaded,it subjects into Validation by TTP.Then TTP sends the file to CSP.CSP decrypt the file by using file key.If CSP tries to modify the data of the file,He cant modify it.If he made an attempt the alert will go to the Owner of the file.It results in the Cloud Migration.
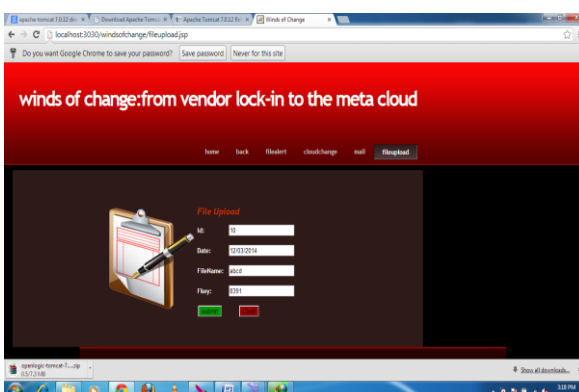
Fig-2 : File Upload

The advantage of this metacloud is, if we are not satisfy with one CSP, we can switch over to next cloud.so that we are using two clouds at a time. In second cloud, their cant modify/corrupt the real data, if they made an attempt, the will fail.
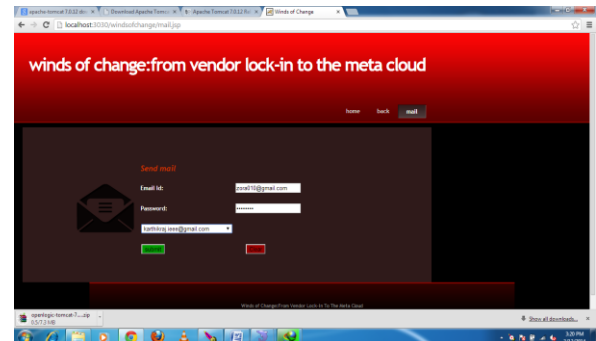
Fig-3 : Send Mail

And then the Mail will be sent to the end user along with file decryption key, so as to end user can download the file. Owner sends the mail to the users who are registered earlier while uploaded the file into the correct cloud. This Meta cloud would abstract away from existing offering's technical incompatibilities, thus mitigating vendor lock-in. It helps users find the right set of cloud services for a particular use case and supports an applications initial deployment and runtime migration. The emergence of yet more cloud offerings from a multitude of service providers calls for a meta cloud to smoothen the edges of the jagged cloud landscape.

IV. CONCLUSION

The Meta cloud can help mitigate vendor lock-in and promises transparent use of cloud computing services. Most of the basic technologies necessary to realize the Meta cloud already exist, yet lack integration. Thus, integrating these state-of-the-art tools promises a huge leap toward the meta cloud. To avoid meta cloud lockin, the community must drive the ideas and create a truly open meta cloud with added value for all customers and broad support for different providers and implementation technologies.

V. REFERENCES

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