

A research on simple way to a private cloud and its uses

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Abstract - At present cloud computing is a very famous technology in IT enterprises. For a company, the data stored is extremely very large and it is very adored. Thus, it becomes very important to have the secured use of data. For this most prior option is a private cloud using which we can keep the data more securely than other. In this paper I am going to discuss about how we can access a private cloud and its uses.

Key Words: Cloud computing, private cloud, application management, Openstack private cloud, security

1.INTRODUCTION (Size 11 , cambria font)

Cloud computing is no more considered as an originating technology. Cloud computing, and private cloud especially, have changed completely the way that organizations deploy and manage business-critical enterprise applications. By combining the flexibility and reliability of server virtualization with the serenity of management and provisioning of cloud computing, private cloud makes it much simpler for businesses to take advantage of enterprise applications as a platform that are perfectly enhanced for these critical services. And businesses today are encircling private cloud to a very high degree.

2. WHAT IS CLOUD COMPUTING

“Cloud computing is a type of computing environment, where administrator contract out their computing needs including application software services to a third party and when they need to use the computing power or employees need to use the application resources like database, emails etc., they approach the assets via Internet.”

3. CLOUD SERVICE DEPLOYMENT AND CONSUMPTION MODELS

3.1 Public Cloud

Public cloud makes use of basic cloud computing model and makes resources available to all users over Internet. Public

cloud services may be offered on pay-per usage basis or may be free.

3.2 Private Cloud

Private cloud is a cloud computing model operated only for one institution/organization. It will be managed internally or a third party and hosted internally or externally. Using this model can grow the business if security hazards are handled carefully. It costs additional major expenditure as assets have to be refreshed periodically. Private cloud is also referred as internal cloud or corporate cloud.

3.3 Hybrid Cloud

Hybrid cloud is combination of cloud service utilizing both private and public clouds to perform distinct functions within institution/organization. In practice, an enterprise cloud implement hybrid cloud to host their e-commerce website within a private cloud, where it is more secure and more scalable, but their catalogue site is in public cloud, where it is more cost effective.

4. A SIMPLE WAY TO PRIVATE CLOUD

Cloud computing has become a major competitive advantage for many organizations today. These organizations have learned that private cloud empower them to get the most out of their infrastructure, reduce IT costs, and more easily and efficiently utilize the demanding applications that run their business so they can focus on modernization. And leading organizations know that moving their business to private cloud need not be a tough task. By working with professional and knowledgeable cloud providers, these leading firms are able to take a hurried and simple path to private cloud. And with these cloud capabilities, they are more easily able to advantage business-critical applications in environments designed to run them at their best. To gain these benefits of enhanced application performance, increased reliability, and savings in IT expenditures, businesses should consider the following points, along with some of the benefits of private cloud:

- **choose a private cloud platform** that leaves you positioned for future growth and supports

converting IT into a partner with all shareholders within the business.

- **Continue your enterprise applications always working.** By leveraging the right private cloud provider, successful businesses gain higher reliability and avoid costly downtime for their critical applications.
- **Boost application management.** Leading organizations take advantage of the best private cloud management efficiency in order to know how their critical applications are operating and avoid issues that can lead to lost revenues.
- **Maintain your organization to advantage future technologies.** Working your application on a private cloud will build a solid base for good improvements and new features in your critical application infrastructure. And by making a solid infrastructure base maintained by private cloud solutions, organizations can take advantage of the latest and greatest technologies with minimal to no expense or resources.
- **Enable a target on critical application requirements.** By working with a private cloud provider, leading organizations are able to offload many of the complications and day-to-day tasks of running critical applications. They also aid from the fact that, to meet SLAs, the provider will work carefully to maintain performance and avoid downtime and other issues.

5. USES OF PRIVATE CLOUD

- **Expenditure Savings:** IT departments are tasked with providing effective solutions which remain cost-effective. Pressure to make good use of available resources is constant but private cloud opens up new avenues for IT. Private cloud solutions make data centers to the next level of efficiency and automation, permissive them to advance their existing resources and investments, as well as reducing manager overheads. An OpenStack private cloud is a good option for the improvement of new cloud-based applications and workloads, it is also an excellent platform for data center revolution, allowing existing virtualized workloads to be migrated to a more cost-efficient environment.

- **Agile Surroundings:** It's no wonder that public cloud has become popular for organizations required to quickly spin up environments for the development and testing of new applications. A traditional internal data center is very slow and inflexible and has environment to allow the teams to carry out agile develops projects. That all changes with a private cloud Infrastructure-as-a-Service solution such as OpenStack Cloud. By bringing a pool of shared, on-demand resources that can be briskly deployed and easily managed, you get all the speed and flexibility you need for a truly efficient and agile DevTest environment.
- **Distribution of Production Workloads:** These days, almost every organizations are in the software development business. The Internet, mobility and social business opportunities have changed how we reach, communicate with and service our customers. New applications and workloads are the leading to successfully competing in these new markets. Some research reveals that some companies might look to the public cloud to develop new software applications and plan to drift these workloads to their own private cloud when they are ready for production use.
- **Upgrading Flexibility:** Almost every modern business has to be able to immediately and easily fit to changing demands without slowing down. Some changes can be expected, such as website traffic during your peak retail season. A private cloud solution offers the required speed of response and flexibility by creating an flexible data center environment. With your compute resources pooled and easily managed, you can quickly allocate more capacity and capability when you need it. A private cloud approach enables IT to quickly deploy an application and the required resources on demand, before shutting them down quickly upon completion. Offering on-demand scalability and flexibility, private cloud addresses computing capacity issues without over-provisioning, simultaneously increasing revenue and minimizing opportunity costs.
 - **Security and agreement:** Public clouds can be secure but the lack of visible controls often concerns business leaders. A private cloud can offer all the benefits of public cloud while ensuring

decisions around security and agreement remain firmly in the control of the enterprise.

6. CONCLUSIONS

In this paper, we first discussed what is cloud computing, services provided by cloud computing, why cloud computing, various models of cloud computing, a simple way to private cloud and its uses. This paper has highlighted all these issues of cloud computing-private cloud. We believe that due to the complexity of the cloud, it will be difficult to achieve end-to-end security. So by opting a private cloud we achieve it.

REFERENCES

- [1]. A. Kundu, C. D. Banerjee, P. Saha, "Introducing New Services in Cloud Computing Environment", International Journal of Digital Content Technology and its Applications, AICIT, Vol. 4, No. 5, pp. 143-152, 2010.
- [2]. B. R. Kandukuri, R. Paturi V, A. Rakshit, "Cloud Security Issues", In Proceedings of IEEE International Conference on Services Computing, pp. 517-520, 2009.
- [3]. Tim Mather, Subra Kumaraswamy, Shahed Latif, Cloud Security and Privacy: An Enterprise Perspective on Risks and Compliance, O' Reilly Media, USA, 2009.
- [4]. Ronald L. Krutz, Russell Dean Vines "Cloud Security A Comprehensive Guide to Secure Cloud Computing", Wiley Publishing, Inc., 2010
- [5]. Cloud Computing Challenges and Related Security Issues, Traian Andrei
- [6]. Security and Privacy Issues in Cloud-Computing, Jaydip Sen, Innovation Labs, Tata Consultancy Services Ltd., Kolkata, INDIA
- [7]. <http://www.ibm.com/cloud-computing/in/en/what-iscloud-computing.html>
- [8]. http://en.wikipedia.org/wiki/Cloud_computing#Privatecloud
- [9]. <http://searchcloudcomputing.techtarget.com/definition/private-cloud>
- [10]. Volume 4, Issue 3, March 2014 ISSN: 2277 128X International Journal of Advanced Research in Computer Science and Software Engineering, Data Security in Cloud Computing Prof Swarnalata Bollavarapu, Bharat Gupta
- [11]. M. Jensen, J. Schwenk, N. Gruschka, and L. Lo Iacono, On Technical Security Issues in Cloud Computing, IEEE, 2009.
- [12]. Cloud security alliance: Security guidance for critical areas of focus in cloud computing v2.1," Dec 2009.
- [13]. A simple path to private cloud white paper, ABRDEEN Group, July 2015
- [14]. Big Data Processing in Cloud Computing Environments Conference Paper in Proceedings of the International Symposium on Parallel Architectures, Algorithms and Networks, I-SPAN · December 2012
- [15]. Krishnan Subramaniyan, Private Cloud, <http://la.trendmicro.com/media/wp/private-clouds-whitepaper-en.pdf>
- [16]. Top 5 uses for private cloud, SUSE