Security Analysis of Intelligent Transportation Systems Based on Simulation Data

Abstract

- On the bases of the OpenStack private cloud delivery big data platform, numerous entities yearn for attaining agile and standardized big data delivery platform, reclaiming the resources, managing the total cost of ownership (TCO) and adapting to multiple big data open source or commercial off-the-shelf (COTS) solutions.

- Nevertheless, as regards the big data platform running on cloud computing, the big data platform is disintegrated from the cloud computing system by virtual machines since neither being based on OpenStack private cloud nor on big data platform can achieve end-to-end resource delivery, together with ensuring that it is quite convenient for the long-term operations.

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- Accordingly, establishing an across framework between private cloud and big data platform is quite essential. The big data on cloud agile provision framework could realize fast resource delivery based on predefined orchestration template of private cloud, operating system, big data platform, monitor, inspection system, etc.

- Through the deployment of this framework, it is capable of attaining the delivery of agile, low cost, standardized and high adaptability the big data on cloud, as well as the high-quality operation of the big data on cloud with the help of integration configuration management database (CMDB) with the automatic inspection system.

Existing system

▶ A substantial number of entities aim at approaching fast delivery and access to the infrastructure resources, in order to verify concept, iterate and release products in a short time all through the digital transformation

▶ As for the infrastructure agile delivery requirement, not only computing, storage or network resources are termed as essential, but also they are associated with the delivery of big data platform resources.

▶ In the past few years, numerous entities enterprises have deployed private cloud based on OpenStack, for the purpose of hosting internal IT requirements.

Disadvantage

- Too large CPU load of some virtual machines will give rise to poor performance of other virtual machines running on the same host.

- OpenStack does not own the capability of efficient dynamic resource management. When hosts are overloaded, for instance, too high CPU steal time, virtual machine migration is likely to be required.

- quite essential for the big data on cloud operation to have the capability of cross tenants' performance analysis and resource management.

Proposed system

- The operational activities of the delivered big data platform are also dependent on the automatic orchestration delivery.

- All through the mechanism of big data platform establishment and orchestration, it is deemed essential to not only initiate monitoring and inspection system but also making sure the consistency of the data between CMDB and big data on cloud in operation.

- This kind of resource delivery processes comprise the orchestration and integration of OpenStack private cloud, virtual machine operating system and big data platform that cannot attain big data on cloud agile provisioning in a single orchestration. An open source or COTS big data software is hardly capable of orchestrating down layer OpenStack private cloud;

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- moreover, barely any cloud orchestration project, such as Open Stack Heat, achieves orchestration for the diversified big data platform.

- In this paper, the big data on cloud agile provision framework puts efforts to throw discussion on a mode of automatic orchestration cross OpenStack private cloud, virtual machine and big data platform that are able to attain the agile delivery, fast resource reclaim, high delivery quality, repeatable delivery process and the capability of being integrated with monitoring, inspection and CMDB.

Advantages

- quite essential to establish the capability of OpenStack dynamic resource management as well as automatic migration based on CMDB.

- It achieves the fast resource delivery and flexible capacity planning management with the help of leveraging cloud computing infrastructure investment.

- The big data on cloud agile provisioning framework is termed as an efficient means of integrated resource delivery.

- it achieves overall end-to-end resource delivery through the orchestration of OpenStack cloud computing, virtual machine operating system, and big data platform

HARDWARE REQUIREMENTS

- Processor   -   Pentium –III
- Speed   -   1.1 Ghz
- RAM   -   256 MB(min)
- Hard Disk   -   20 GB
- Floppy Drive   -   1.44 MB
- Key Board   -   Standard Windows
           Keyboard
- Mouse   -   Two or Three Button
           Mouse
- Monitor   -   SVGA

SOFTWARE REQUIREMENTS

- Operating System   :   Windows 8
- Front End   :   Java /DOTNET
- Database   :   Mysql/HEIDISQL

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Conclusion

▸ The big data on cloud agile provisioning framework is termed as an efficient means of integrated resource delivery.

▸ It achieves the fast resource delivery and flexible capacity planning management with the help of leveraging cloud computing infrastructure investment.

▸ Moreover, it achieves overall end-to-end resource delivery through the orchestration of OpenStack cloud computing, virtual machine operating system, and big data platform.

▸ In addition, it achieves delivered big data platform being operational through integration monitoring, inspection and CMDB.

▸ There are evident benefits associated with the delivery progress, quality, financial index, repeatability, adaption of multiple open source big data platform and commercial off-the-shelf software or in resource reclaim

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