

{tag}

Advanced Computing (ICCTAC-2015)

© 2015 by IJCA Journal

ICCTAC 2015 - Number 1

Year of Publication: 2015

{/tag}

International Conference on Current Trends in

Authors:

A. Stanislas

L. Arockiam

{bibtex}icctac2003.bib{/bibtex}

Abstract

Cloud computing is a wonderful paradigm which assures the customers of providing computing resources instantly whenever they are in need. It is the virtualization technology that makes this paradigm a reality. But the present technology which is used for provisioning virtual machines is not adequate. Thus, there is latency in service provisioning and the long waiting time of virtual machine provisioning hampers the future popularity of cloud computing. So, high scalability which is the key factor of cloud computing is not easily possible. Therefore, there is a need for a mechanism to enable the service provisioning effectively with high scalability. In view of that, this paper presents a system which predicts the workload demands of the service requests automatically so as to prepare the virtual machines in advance in order to ensure the

customers with instant services efficiently without much delay. Trend value analysis using various methods is carried out in the prediction system.

References

ences

- Wenrui L, Pengcheng Z, Zhongxue Y. , 2012. A framework for self-healing service compositions in cloud computing environments. In the Proceedings of the 19th International Conference on Web Services, IEEE Computer Society, 690-691.
- Armbrust M. , Fox A. , Griffith R. , Joseph A. , Katz R. , Konwinski A. , Lee G. , Patterson D. , Rabkin A. , and Stoica I. , 2010. A view of cloud computing, Communications of the ACM, 50-58.
- Eyal Z. , Israel C. , Osnat M. , 2011. The Power of Prediction: Cloud Bandwidth and Cost Reduction. SIGCOMM/ACM, pp. 86-97.
- Eddy C, Frederic D. , Adrian M. , 2011. Forecasting for Cloud computing on-demand resources based on pattern matching. INRIA, 1-27.
- Yexi J. , Chang-Shing P. , Tao L. , Rong C. , 2011. ASAP: A Self-Adaptive Prediction System for Instant Cloud Resource Demand Provisioning. In the proceedings of 11th IEEE International Conference on Data Mining, IEEE Computer Society, 1104-1109.
- Avinash M. , Mukesh M. , Sanket D. , Shrisha R. , 2011. Energy Conservation in Cloud Infrastructure. In the Proceedings of 5th Annual IEEE International Systems Conference (IEEE SysCon 2011), Montreal, Canada.
- Arijit K. , Xifeng Y. , Shu T. , Nikos A. , 2012. Workload Characterization and Prediction in the Cloud: A Multiple Time Series Approach. In the Proceedings of IEEE/IFIP 3rd Workshop on Cloud Management (CloudMan), 1287-1294.
- Bruno C. , Diego D. , Pierangelo D. S. , Roberto P. , Sebastiano P. , Francesco Q. , Paolo R. , 2012. Automated Workload Characterization in Cloud-based Transactional Data Grids. In the Proceedings of the 26th International Parallel and Distributed Processing Symposium Workshops & PhD Forum, IEEE Computer Society, 1525-1533.
- Eddy C. , Frederic D. , Adrian M. , 2011. Pattern Matching Based Forecast of Non-periodic Repetitive Behavior for Cloud Clients. Springer Science + Business Media B. V. , 1-16.
- Ang L. , Xuanran Z. , Srikanth K. , Xiaowei Y. , Ming Z. , 2011. CloudProphet: Towards Application Performance Prediction in Cloud. SIGCOM/ACM, 426-427.
- Gemma R. , Javier A. , Jordi G. , 2010. Prediction of Job Resource Requirements for Deadline Schedulers to Manage High-Level SLAs on the Cloud. In the Proceedings of the 9th IEEE International Symposium on Network Computing and Applications, IEEE Computer Society, 162-167.
- John J. P. , Kranthimanoj N. , Brian K. , Mo J. Prediction of Cloud Data Center Networks Loads Using Stochastic and Neural Models.
- Kranthimanoj N. , Brain K. , Jeff P. , Mo J. , 2010. On Prediction to Dynamically Assign Heterogeneous Microprocessors to the Minimum Joint Power State to Achieve Ultra Low Power Cloud Computing. IEEE.
- Eleni P. , Damianos K. , Nancy A. , 2012. A Lightweight Framework for Prediction-based Resource Management in Future Wireless Networks. EURASIP Journal on Wireless

Communications and Networking, 1-12.

- Rodrigo N. C. , Rajiv R. , Buyya R. Virtual Machine Provisioning Based on Analytical Performance and QoS in Cloud Computing Environments.

Computer Science

Index Terms

Distributed Systems

Keywords

Scalability Workload Virtualization Technology Autopred Prediction System