

{tag}

{/tag}

International Journal of Computer Applications

© 2015 by IJCA Journal

Volume 116 - Number 2

Year of Publication: 2015

Authors:

Tulasi B

Rupali Sunil Wagh

Balaji S

10.5120/20311-2356

{bibtex}pxc3902356.bib{/bibtex}

Abstract

The advent of technology has led to rise in data being captured, stored and analyzed. The requirement of improving the computational models along with managing the voluminous data is a primary concern. The transition of the High Performance Computing from catering to traditional problems to the newer domains like finance, healthcare etc. necessitates the joint analytical model to include Big Data. The rise of Big Data and subsequently Big Data analytics has changed the entire perspective of data and data handling. Ever growing analytical needs for Big Data can be satisfied with extremely high performance computing models. As a result of enormous research in this field, recent years have seen the emergence diverse paradigms for Big Data analytics. With the spread of Big Data analytics in varied domains, newer concerns regarding the effectiveness of analytical paradigms are also observed. This paper highlights the major analytical models and concerns and challenges in High Performance Data Analytics.

Refer

ences

- Big Data: The next frontier for innovation, competition and productivity. James Maniyka, Executive summary ,McKinsey Global Institute ,May 2011, http://www.mckinsey.com/mgi/publication/big_data/MGI_big_data_exec_summary.pdf.
- <http://www.emc.com/collateral/analyst-reports/idc-extracting-value-from-chaos-ar.pdf> [Accessed on 2nd January 2015]
- Beyond the hype: Big data concepts, methods, and analytics, Amir Gandomi , Murtaza Haide, International Journal of Information Management 35 (2015) 137–144
- <https://analyticsacademy.withgoogle.com/course01/assets/pdf/DigitalAnalyticsFundamentals-Lesson2.1TheimportanceofdigitalanalyticsText.pdf> [Accesses on 27th December 2014]
- Big Data Meets High Performance Computing Intel® Enterprise Edition for Lustre* software and Hadoop combine to bring big data analytics to high performance computing configurations. <http://www.intel.com/content/dam/www/public/us/en/documents/white-papers/big-data-meets-high-performance-computing-white-paper.pdf>
- Dilpreet Singh and Chandan K Reddy, A survey on platforms for big data analytics, Journal of Big Data 2014, 2:8 doi:10.1186/s40537-014-0008-6
- Han Hu, Yonggang Wen, Tat T-Seng Chua, and Xueli Ong Li, Toward Scalable Systems for Big Data Analytics: A Technology Tutorial, Digital Object Identifier 10.1109/ACCESS.2014.2332453
- Thibaud Chardonens, Philippe Cudre-Mauroux and Martin Grund ,Big Data Analytics on High Velocity Streams: A Case Study, Benoit Perroud, 2013 IEEE International Conference on Big Data, 978-1-4799-1293-3/13/\$31.00 ©2013 IEEE
- Xue-Wen Chen and Xiaotong Lin, Big Data Deep Learning: Challenges and Perspectives, Digital Object Identifier 10.1109/ACCESS.2014.2325029
- Fay Chang, Jeffrey Dean, Sanjay Ghemawat, Bigtable: A distributed storage system for structured data, on Seventh Symposium on Operating System Design and Implementation, 2006
- <http://highscalability.com> [Accessed on 6th February 2015]
- Thomas Sandholm and Dongman Lee, Notes on Cloud computing principles, Journal of Cloud Computing: Advances, Systems and Applications 2014
- Philip C. Church and Andrzej Goscinski, A Survey of Approches and Frameworks to Carry out Genomic Data Analysis on the cloud, 2014 14th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing, 2014 IEEE, DOI 10.1109/CCGrid.2014.127
- Farhana Zulkernine, Michael Bauer, Ashraf Aboulnaga, Patrick Martin and Ying Zou, Femida Gwady-Sridhar, Towards Cloud-based Analytics-as-a-Service (CLAAaaS) for Big Data Analytics in the Cloud, 2013 IEEE International Congress on Big Data
- Ascent / Data Analytics as a Service: unleashing the power of Cloud and Big Data, Published in March 2013
- Jianqing Fan, Fang Han and Han Liu, Challenges of Big Data analysis, National Science Review 1: 293–314, 2014, doi: 10.1093/nsr/nwt032
- Parallel Data Processing with MapReduce: A Survey, SIGMOD Record, December 2011 (Vol. 40, No. 4)
- M. Pavlovic, Y. Etsion, and A. Ramirez, On the memory system requirements of future scientific applications: Four case-studies, in Workload Characterization (IISWC), 2011 IEEE International Symposium on, 2011, pp. 159-170.

- Techniques and Challenges of Data Centric Storage Scheme in Wireless Sensor Network Khandakar Ahmed and Mark A. Gregory, Journal of Sensor Networks, volume 1, Issue 1, 59-85

Computer Science

Index Terms

Security

Keywords

High Performance Analytics Big Data Analytics Stream Analytics Converging Paradigms Computational Models.