

Submission 243

Conference

News

EasyChair


ICIC 2018 Submission 243

Submission information updates are disabled.

For all questions related to processing your submission you should contact the conference organizers. [Click here to see information about this conference.](#)

All **reviews sent to you** can be found at the bottom of this page.

Submission 243

Title	Performance Analysis of Big Data Frameworks on Virtualized Clusters
Paper:	 (Jun 24, 14:48 GMT) (previous versions)
Author keywords	virtualization performance Hadoop Apache Spark
EasyChair keyphrases	multi node cluster (174), node cluster (100), file system (80), execution time (70), apache spark (50), virtualization technology (50), read task (50), hasanuddin university makassar (47), informatics department hasanuddin (47), big data framework (47), open source framework (47), virtualized environment (40), large scale data processing (40), virtual machine (40), cluster computing (40), better throughput (40), write task (40), hadoop distributed file system (40)
Abstract	Developing Big Data applications has become increasingly important for companies and researchers around the world, due to rapid growth of technologies and devices that leads to generate massive of electronic data each day. Traditional algorithms and technologies are less efficient to process, analyze, and store large datasets. In Big Data computation, Hadoop and Apache Spark are two open source frameworks that are commonly used and run on physical clusters. Since running these frameworks on a physical cluster costs more energy and rigid in management, in this research we evaluated their performance on virtualized clusters. Virtualization technology offers flexibility on managing cluster by sharing the resources to multiple instances. Our experiments show that in general Apache Spark is about 2–9 times better in execution time and throughput compared with Hadoop running on a virtualized environment.
Submitted	Jun 24, 14:36 GMT
Last update	Jun 24, 14:44 GMT

Authors

first name	last name	email	country	affiliation	Web page	corresponding?
Amil Ahmad	Ilham	amil@unhas.ac.id	Indonesia	Hasanuddin University		✓
Muhammad	Niswar	niswar@unhas.ac.id	Indonesia	Hasanuddin University		

Andi Muhammad	Ryanto	contact.amrjo@gmail.com	Indonesia	Hasanuddin University		
---------------	--------	-------------------------	-----------	-----------------------	--	--

Reviews

Review 1

<i>English Writing</i>	4: (good)
<i>Overall evaluation</i>	2: (accept) 1. Abstract only 4 words, it must be 5–8 words. 2. Some words are not right word, for example: Conclusion.

Review 2

<i>English Writing</i>	3: (fair) 2: (accept) This paper discuss about evaluate and analyze the performance of both big data frameworks based on their I/O throughput and average execution time when running on a virtualized environment. Used Wordcount and TestDFSIO benchmarks to compare the performance of the two frameworks.
<i>Overall evaluation</i>	Methodology : Using Experimental method , System Overview and Benchmark. Results: Using Wordcount benchmark, the experiments show that Spark outperformed Hadoop 3x–4x faster on a singlenode cluster and 2x faster on multi–node cluster. Using TestDFSIO benchmark, Spark gives better throughput about 4x in write task and about 2x in read task on single–node cluster, about 9x better in write task and about 3.5x in read task on a multi–node cluster compared with Hadoop.

Review 3

<i>English Writing</i>	3: (fair) –1: (weak reject)
<i>Overall evaluation</i>	– This paper compares two big data open source framework in virtual cluster: Hadoop and Spark. Although the author explain why they choose these two frameworks, they failed to justify why only compare the I/O throughput and average execution time between two frameworks? – Some theoretical and practical implications should be provided in the manuscript – The discussion is weak and need to be supported by other related works – Some grammar and wording errors are found. A native speaker should proof–read the work

Review 4

<i>English Writing</i>	4: (good)
<i>Overall evaluation</i>	2: (accept) It is a reasonable good research paper. It can be a better one, if comparison to relevant previous work is added to the discussion, conclusion, and future work.