

Applicability of giraph and hadoop for the processing of big graph [Ejemplos de aplicabilidad de giraph y hadoop para el procesamiento de grandes grafos]

Valenzuela S.A.

Vidal C.L.

Morales J.D.

López L.P.

This article presents a comparison of the performance of the tools Hadoop y Giraph for the analysis and processing of large volumes of information or Big Data, with the aim of showing their usefulness for Big Graph processing. The analysis and processing of large volumes of information represents a real challenge nowadays. There already exist Big Data methodologies and free processing tools such as those mentioned above: Hadoop for processing large volumes of data, mainly non-related data, and recently Giraph for processing large graphs or Big Graph. In this comparison, this paper presents an analysis of the execution time cost for the practical implementation of the PageRank algorithm, which classifies Web pages according to their relevance, and of algorithms to find the minimum spanning tree in a graph. Experiments show that the use of Giraph for processing Big Graphs reduces the execution time by 25% with respect to the results obtained using Hadoop.

Big Data

Big Grap

Giraph

Grafos

Hadoop

MapReduce

Trees (mathematics)

Websites

Big Grap

Giraph

Grafos

Hadoop

Map-reduce

Big data