Proposed Business Intelligence System through Big Data

Dr. Hasanen S. Abdullah  
Computer Sciences Department, University of Technology/Baghdad  
Saif Bashar Neama  
Computer Sciences Department, University of Technology/Baghdad  
Email: SAIF13LP@YAHOO.COM

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ABSTRACT

Every company or institution in the world has huge amounts of raw data. Since, we are living now in the era of data and data explosion, data is generated in an alarming rates. As the Big Data problem emerges, big data cannot be processed by traditional systems due to its huge size, complexity and rapid generation, and since data became the most important element in the business world to drive companies and institutions in the right direction. Business Intelligence Systems are built to serve that purpose. This paper introduces a system that will implement a Business Intelligence technique to handle Big Data problem through Hadoop Framework benefiting from its functionalities to provide a parallel processing environment by implementing a cluster of three nodes that will hold the data set and running queries on it in parallel using the functionality of Map Reduce algorithm. The system consists of four primary stages: first is the stage of loading the data into the cluster, second is the stage of constructing the data warehouse to become the source layer for the data analysis stage to extract the business insights. The third stage analyzes the data and answers the business problems. Finally the fourth stage is the data visualization stage where the answers that gathered from the previous stage will take the form of visual charts and graphs that will be contained in a unified business intelligence dashboard that will provide the overall look for the business operations.

Keywords: Business Intelligence, Big Data, Hadoop, and Big Data Analytics.