

RESEARCH REPORT

# The State of Real-time Big Data Analytics: 2013 Survey Results

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October 2013

## Executive Summary

As the speed of business accelerates, organizations produce increasingly vast volumes of high velocity data in a myriad of formats, commonly referred to as Big Data. The challenge for these organizations lies in being able to transform this deluge of data into instantaneous intelligence that can enable faster, better business decisions. Big Data Analytics initiatives are being discussed as a means to this end in boardrooms around the globe. But what does Big Data Analytics really mean to these organizations? How “real-time” does Big Data Analytics have to be? How important is it to be able to analyze and act on both streaming as well as stored Big Data? What benefits do they hope to achieve? And most importantly, are their organizations ready for these initiatives?

In September of 2013, Vitria Technology, Inc. conducted a survey to gain some insight into Big Data Analytics needs and perceptions. The survey results showed that organizations are increasingly recognizing that they need to be able to analyze diverse sources of data – both historical as well as streaming data - to take immediate action. While 41% of the respondents said that it was important to be able to take action on analyzed data within seconds and minutes, 67% also admitted to having little to no technology support for analyzing and immediately acting on streaming Big Data. The ability to make faster, better decisions, increase operational efficiency and improve customer experience were the top three benefits that the respondents hoped to achieve through real-time Big Data analytics.

## About the Survey Respondents

The survey was conducted at two leading Big Data Analytics conferences. 122 conference attendees completed the survey. More than 70% of the respondents were from five industry sectors - financial services, healthcare, retail, energy and IT. 29% of the respondents were from the financial services and insurance sector. The IT sector accounted for 21% of the respondents. 10% of the respondents were from the healthcare sector and the retail and energy sectors each accounted for 7% of the respondents.

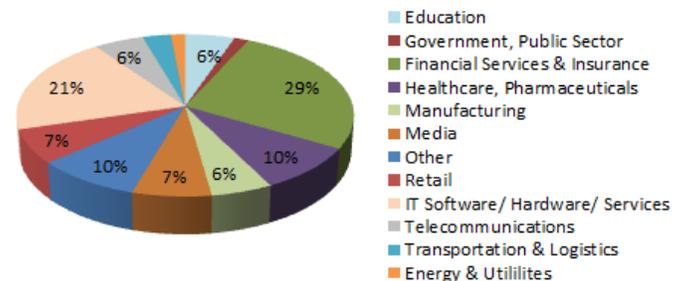


Figure 1: Industry segmentation of respondents

The roles of the respondents varied from individual contributors to executive management. 82% were from IT, of which 77% were from IT management.

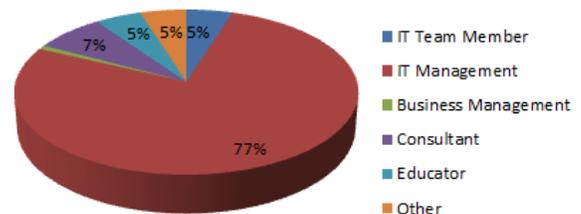


Figure 2: Role segmentation of respondents

## Key Findings

The five major findings from the survey were as follows:

### #1: Analyzing Diverse Sources of Data – both Stored and Streaming Data – is Critical

The survey respondents were asked to rate the importance of being able to analyze diverse sources of data, streaming data, historical data, and unstructured data, as well as take action on analyzed data.

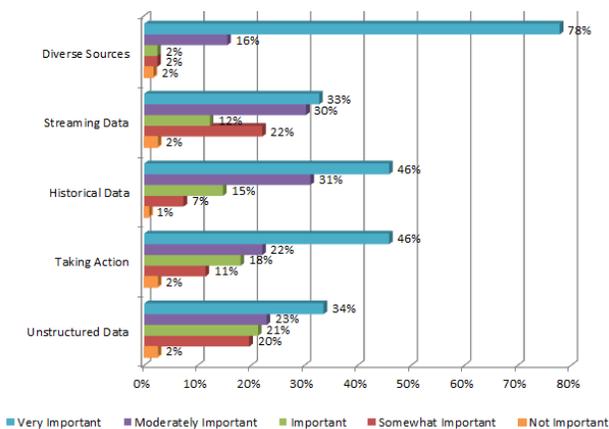


Figure 3: Critical factors in Big Data Analytics

An overwhelming 94% stated that being able to analyze diverse sources of data was very important to moderately important. 77% placed the same level of importance on being able to analyze historical Big Data. What is encouraging is that organizations are also realizing the importance of being able to analyze streaming Big Data and take immediate action on the analyzed data, which is reflected in the survey results. 63% indicated that the ability to analyze streaming Big Data was very important to moderately important and 68% placed the same level of importance on being able to take action on analyzed data. As business executives push for actionable insights at their fingertips, IT organizations will be

pressured to deliver solutions that can help their business counterparts analyze and act on both streaming and stored Big Data and make informed decisions - in seconds and minutes.

### #2: Acting on Analyzed Data in Seconds and Minutes is Key, Says 41%

When asked how quickly their organizations needed to take action on analyzed data, 41% of the respondents stated that they needed to do so in seconds or minutes.

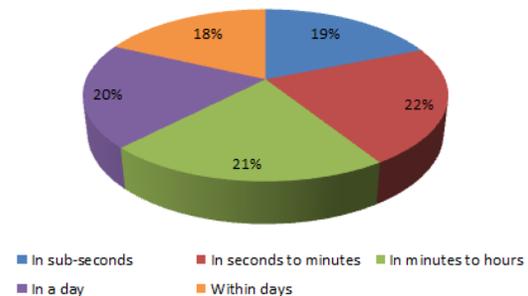


Figure 4: The speed of acting on analyzed data

### #3: Technology Support for Streaming Big Data Analytics and Action is Limited

However, 67% of those surveyed indicated that their organizations had little to no technology support for analyzing streaming Big Data to take immediate action.

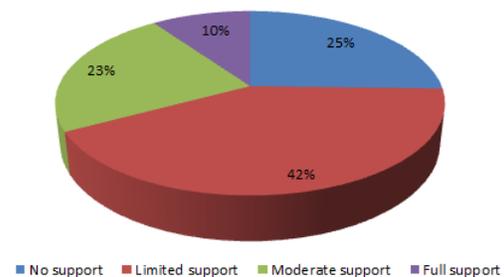


Figure 5: Support for analyzing streaming Big Data for immediate action

Furthermore, 30% stated that they had no technology infrastructure at all for Big Data Analytics. 14% stated that they had developed solutions internally and 44% of the respondents indicated that they had stitched together solutions for Big Data Analytics with components from different vendors.

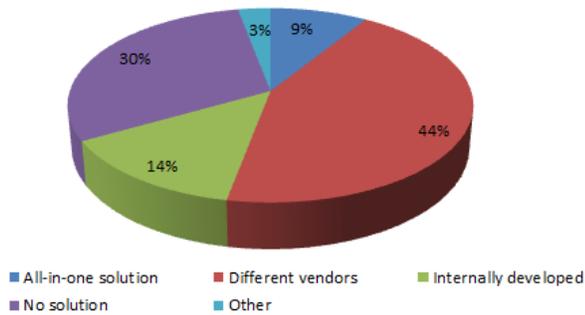


Figure 6: Types of technology infrastructure for Big Data Analytics

The results indicate that most organizations' strategies for Big Data Analytics, especially streaming Big Data Analytics, are far from mature.

#### #4: Faster, Better Decision-Making Tops the Benefits List, Real-time 1:1 Marketing Trails

The survey respondents were asked to weigh in on the anticipated benefits from real-time Big Data Analytics. 72% ranked faster, better decision-making as a result of real-time analytics as the top benefit. Increasing operational efficiency ranked #2 with 61% of the respondents indicating it as a major benefit. Improving customers' experience through real-time analytics was a close third at 57%. Interestingly, real-time 1:1 marketing tied at #4 along with risk management suggesting that few organizations have really explored or understood the true potential of real-time Big Data Analytics for increasing revenue.

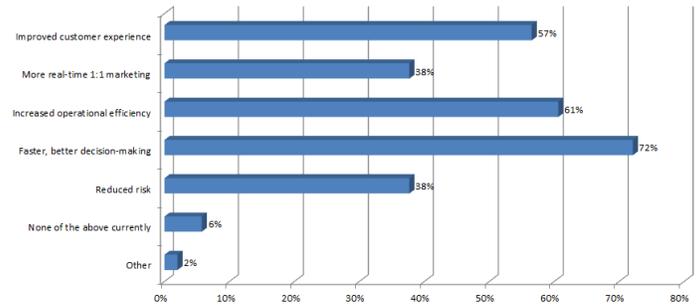


Figure 7: Anticipated benefits from Real-time Big Data Analytics

#### #5: Big Data Analytics Initiatives are Driven from the Top

Of those surveyed, 47% noted that the responsibility for a Big Data Analytics initiative lay with a C-level executive. 22% indicated that the Head of Analytics owned these initiatives. Only 16% stated that the responsibility rested with a line-of-business executive suggesting that these initiatives are currently driven from the top down through the organization.

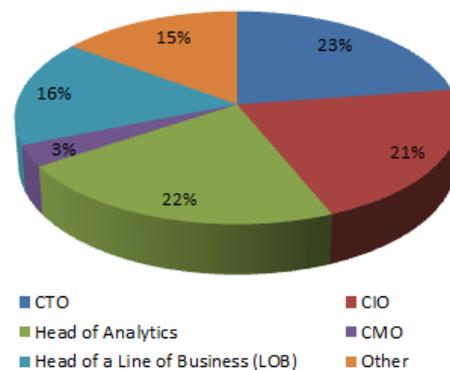


Figure 8: Responsibility for Big Data Analytics initiatives

## Recommendations

IT organizations that are striving to deliver actionable insight in seconds or minutes to their business counterparts should take stock of their analytics architecture. Consider complementing your existing enterprise business intelligence (BI), data warehouse and other stored Big Data infrastructure such as Hadoop and NoSQL databases with solutions that can ingest, correlate and analyze streaming Big Data as well to produce continuous, real-time operational intelligence. Evaluate solutions that also incorporate capabilities that let your organization take immediate action on the discovered insights –e.g., immediately send out alerts and notifications, or even kick off a remedial process. When rethinking your analytics infrastructure, look for approaches that afford a quick win around a specific business problem but factor in being able to scale for multiple initiatives.

## Appendix

The Vitria survey was conducted in September 2013 using the offline polling technologies from iSurvey at the Big Data Innovation Summit in Boston and the TDWI Solution Summit for Big Data Analytics in Austin. The survey was promoted to attendees via conference-specific promotions, Twitter and at the Vitria booth.

Surveys were completed at the Vitria booths using an iPad. Survey respondents were also entered in to a drawing to win an iPad. A total of 122 respondents filled out the survey, and the complete results of responses are available upon request.