Big Data for the Enterprise

To derive real business value from big data, you need the right tools to capture and organize a wide variety of data types from different sources, and to be able to easily analyze it within the context of all your enterprise data. TriCore can assist in acquiring and organizing these diverse data types and analyze them alongside your existing data to find new insights and capitalize on hidden relationships. There are four key characteristics that define big data:

- Volume: Machine-generated data is produced in much larger quantities than nontraditional data. For instance, a single jet engine can generate 10TB of data in 30 minutes. With more than 25,000 airline flights per day, the daily volume of just this single data source runs into the Petabytes.

- Velocity: Social media data streams – while not as massive as machine-generated data – produce a large influx of opinions and relationships valuable to customer relationship management. Even at 140 characters per tweet, the high velocity (or frequency) of Twitter data ensures large volumes (over 8 TB per day).

- Variety: Traditional data formats tend to be relatively well described and change slowly. In contrast, non-traditional data formats exhibit a dizzying rate of change. As new services are added, new sensors deployed, or new marketing campaigns executed, new data types are needed to capture the resultant information.

- Value: The economic value of different data varies significantly. Typically there is good information hidden amongst a larger body of non-traditional data; the challenge is identifying what is valuable and then transforming and extracting that data for analysis.

Building a Big Data Platform

As with data warehousing, web stores or any IT platform, an infrastructure for big data has unique requirements. In considering all the components of a big data platform, it is important to remember that the end goal is to easily integrate your big data with your enterprise data to allow you to conduct deep analytics on the combined data set. TriCore's approach to Big Data Projects includes addressing the following challenges associated with Big Data:

- How to acquire big data
  - What technologies do I employ? How do I store the data?
- Organizing Big Data
  - Do I use a DW method or not? How will I deal with large data volumes?
- Analyzing Big Data
  - How do I integrate Enterprise Data with Social data and make it useful?

Why TriCore for BI?

- Over 500 successful BI Implementations and counting

- Kimball Warehouse

- Methodology Experts

- Certified consultants across numerous platforms and technologies

- Strategic partnerships with leading platform and BI vendors

- Published and contributing authors to industry and trade magazines

"But all data and analytics software is not created equal. For a solution to really make a difference, it must be intuitive, visual and adaptive. What's more, it must make sense."

Big Data / High Performance Analytics "Big Picture"

Many new technologies have emerged to address the IT infrastructure requirements outlined above. At last count, there were over 120 open source key-value databases for acquiring and storing big data, with Hadoop emerging as the primary system for organizing big data and relational databases expanding their reach into less structured data sets to analyze big data. TriCore can assist in choosing key technologies and strategies for addressing the Big Data Challenge.

- *Big Data* – data that becomes large enough that it cannot be processed using conventional methods.
- *Big Data is* …
    o Traditional Enterprise Data;
    o Machine / Sensor / Program generated;
    o Social data;
- *Big Data requires* a complete high-performance platform to handle volume, velocity, variety and value;