BOLT

Big Data - What is it? Where does it come from?
What do I do with it?

One of the latest buzz words in the industry over the last couple of years is BIG DATA. But how many of us truly understand what this means and more importantly, the impact that it can have on us – both personally and professionally.   The amount of data in the world is growing every second – it's taking on more forms . . . . structured and unstructured, in motion and at rest. Big Data can hold valuable insights that can transform a business.

But unless it is managed properly and without the proper tools, big data is JUST BIG NOISE. Without proper planning and appropriate tools, it can truly overwhelm an organization and create gridlock.

We have created a series of brief articles to help explain the big data phenomenon – and will get into more specifics at a later time. Initially, we felt it would help to put things into perspective by starting with some basic concepts . . . . . .

We'll start with a general summary of how data is measured:
  1 character = 1 byte (~160 of these per text message)
  1 kilobyte (KB) = 1000 bytes (~4 paragraph email)
  1 megabyte (MB) = 1,000,000 bytes (Text of Ray Bradbury's novel Fahrenheit 451)
  1 gigabyte (GB) = 1,000,000,000 bytes (~350 digital pictures / 1200 Novels)
  1 terabyte (TB) = 1,000,000,000,000 bytes (~40 HD movies / 350,000 digital pictures)

In the "old days of the mid-1970's", a state-of-the-art mainframe computer had 1 MB of memory. It would require a large computer room to house all the required devices – AND it would cost over $1 million. Today you can buy laptops with more than 1000 times the power for less than $1000. You can store 1GB of data in the "cloud" for less than $1.00 per month.

The IT world has predicted that by 2020, the quantity of electronically stored data will reach 35 trillion gigabytes – a 44-fold increase from 2009. They say we had already reached 1.2 million petabytes, or 1.2 zettabytes (1.2 billion terabytes), at the end of 2010 – according to IDC. That's enough data to fill a stack of DVD's reaching from the Earth to the moon and back – about 240,000 miles each way.

For many, this is terribly alarming. People wonder what we will do with all of this data -- especially in the transportation arena where many organizations are still getting aware of integrated technologies and the gathering of data electronically.

As we utilize On Board Computers (OBCs), Electronic Logging Devices (ELDs) and smart phones, dispatchers are set to review hundreds of megabytes each day. Fleet managers will have gigabytes of information to analyze in a week. Collection of this information is available today. .

The benefits that can be derived from effectively managing your data can dramatically improve the efficiency and profitability of your fleet. The key to making this happen is to make sure your fleet management provider understands BIG DATA and the importance of useful analytics in addition to providing adequate disk storage to maintain giga and terra byte information. Storage is inexpensive but backup/restore and data management processes are required to access / analyze and visually present the information in a format that is easily interpreted for all of your personnel - including dispatchers, sales, administrative, management and drivers. Used correctly, this could even become a major factor in driver hiring and retention.

Our follow-up article will detail transportation related benefits by capturing and analyzing Big Data.