

Vendor Spotlight

IBM Offers Big Data Solutions for a Smarter Planet

Bruce D. Weed, Program Director, Worldwide IBM Big Data Business Development

Bruce D. Weed talks about the key components of the IBM* big data platform and how the company is using these solutions to help its customers build a smarter planet.

Enterprises are awash with ever-growing data of all types, easily amassing terabytes—even petabytes—of information. But within that data is a wealth of insight. IBM is helping organizations, both private and public, tap into that insight using breakthrough technologies in hardware and software.

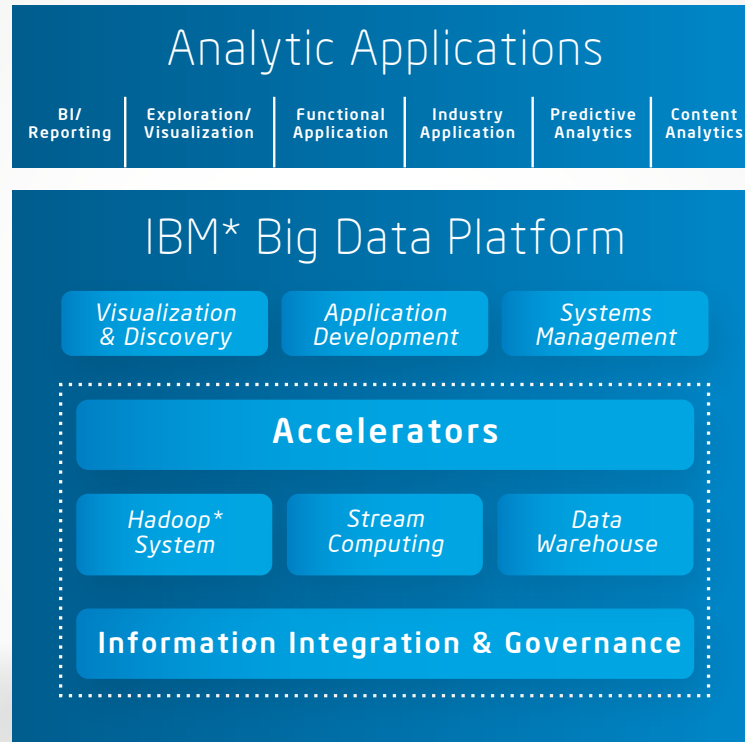
This is the essence of big data, and it's poised to help all of us make smarter decisions. But first you have to be able to harness that data in the best way possible.

The Four Components of IBM Big Data

To help you take control of the high volume and variety of your data at previously unheard-of data processing velocities, we built the IBM* big data platform with four main components:

- **IBM InfoSphere* BigInsights.** This Hadoop*-based product includes other open-source components like Pig*, Flume, Hive*, Lucene*, ZooKeeper*, and HBase*. IBM has announced support for expanding its big data platform to run on other distributions of Hadoop, starting with Cloudera first. The true value-add of this product, however, is the stack on top of Hadoop. This stack includes advanced analytics, job and workflow management, security, and extensive integration—all of which make the product enterprise ready.
- **InfoSphere Streams.** A very scalable streaming computing product that is excellent in extreme low-latency-type applications. Use it to analyze both structured and unstructured data, including video, audio, and other nonrelational, unstructured data streams.
- **InfoSphere Information Server.** A market-leading data integration platform that helps you understand, cleanse, transform, and deliver trusted information to your critical business initiatives.
- **Data warehouse appliances.** This roster includes IBM Netezza*, IBM Smart Analytics System (ISAS), and the InfoSphere Warehouse.

The complete IBM big data platform features all these components working together to deliver secure and scalable processing and analysis of large amounts of data at high velocity.



On the hardware side, IBM System x* servers built on the Intel® Xeon® processor E5 family support the server clusters that power the distributed processing required for big data analytics.

We also have a very large business-partner ecosystem featuring companies like Datameer who provide visualization and analytics tools. Other partners, such as Jaspersoft, Zettaset, and TerraEchos, have application-specific or analytic-specific visualization tools as well. We also have the support of key system integrators like Deloitte, Accenture, and CSC.

IBM Customer Profile: Vestas

The challenge at Vestas was to improve the placement of wind turbines to increase output and extend service life. Wind turbines run anywhere from \$20 million to \$40 million apiece, so you can imagine that the company has a very vested interest in placing them in safe locations that also offer maximum wind utilization. To do this, Vestas analyzes large volumes of weather data—currently 2.8 petabytes, likely growing to around 16 petabytes by 2015. It cross-analyzes the weather data with its turbine meter data to model prospective locations. With the help of IBM* big data systems, Vestas reduced this modeling time from weeks down to hours.

What Will You Do with Big Data?

We've seen the IBM big data platform leveraged by medium-size organizations to very large enterprises across all industries. Within those organizations, we're seeing big data analysis by IT operations and provisioning by data professionals and also by business analysts and end users.

IBM's big data platform also gives you the ability to store more data than you normally would. This has sparked an interesting phenomenon. Many organizations have tons of legacy data that they haven't looked at in years. But these new big data solutions are allowing them to go back and leverage that legacy information.



Financial Services

- Risk & Fraud Management
- 360-Degree View of Customer



Retail

- Omni-Channel Marketing
- Click-Stream Analysis



Healthcare/Life Sciences

- Medical Record Text Analytics
- Genomic Analytics



Law Enforcement

- Real-Time Multimodal Surveillance
- Cybersecurity Detection



Telecommunications

- Call Detail Record Processing
- Customer Profile Monetization



Energy & Utilities

- Smart Meter Analytics
- Asset Management



Digital Media

- Real-Time Ad Targeting
- Web Site Analysis



Transportation

- Logistics Optimization
- Traffic Congestion

Build a Smarter Planet with Big Data

Big data is truly a game-changing technology. It's really through big data exploration and discovery that organizations are going to be able to solve complex problems and gain insights never thought possible.

IBM is really excited about big data analytics. This technology has the potential to contribute to the bottom line of enterprises. But it doesn't stop there. When you look at solving big, critical issues

around the world—whether it's world hunger, global finance, global energy, or global employment—this is the technology that will ultimately provide insight to help address those mega worldwide issues.

For more information about IBM big data solutions, visit www-01.ibm.com/software/data/bigdata/.

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