Business Analytics
In a Big Data World

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The world is changing…

<table>
<thead>
<tr>
<th>The Economist</th>
<th>Tim O'Reilly</th>
<th>Gartner</th>
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<tbody>
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<td>“Information has gone from scarce to super-abundant. That brings huge new benefits.”</td>
<td>“We're entering a new world in which data may be more important than software.”</td>
<td>“By 2015, organizations integrating high-value, diverse, new information types and sources into a coherent information management infrastructure will outperform their industry peers financially by more than 20%.”</td>
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Approaching the tipping point...

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<th>Increasing volume, variety, and velocity of data</th>
<th>Hardware innovation enabling cost-effective solutions</th>
<th>Software innovation providing new and improved features</th>
<th>Increased adoption of cloud computing</th>
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And now is the time to act!
Top Executive Issues for 2012 and 2013

Cloud & Hybrid Computing

Big Data

Storage and Data Warehousing

Security

IT as Value Creator

Data Explosion

Consumerization

Mobility and Devices

Business Analytics in the Cloud OS
Modern Business Analytics

- Discover, collect and manage any data, any size, anywhere
- Store and access data from Hadoop, SQL, or connect to the world’s data
- Use common tools to analyze data, gain insight, and create & share reports
- Use immersive data experiences with data query services and data mashups

Insight!
Take control of structured and unstructured data—social feeds, video, databases, log files, clickstreams, and etc.

Access and store data as best fits: Hadoop for large or streaming, data warehouses for relational, and the Windows Azure Marketplace for public data.

Improve business data from spreadsheets and SQL databases with cloud and Hadoop sources to create customized, immersive data experiences.

Make better decisions, improve reporting and data sharing, and grow the business with better, more relevant data analysis.
What is Big Data?

Where do you find Big Data?
- Sources: relational, unstructured, or streaming
  - Lots of information stored & forgotten
  - Large amounts of data added daily

What can Big Data do?
- Make information an asset—leading to better decision-making or a new product offering
  - Measure, analyze, report, and make better decisions

What does Big Data mean for business?
- Create new products
- Create new sales
- Know what customers are saying and doing
- Improve business and IT response

Look for:
- Lots of data from unstructured data sources, and more added each day.
- Information collected but just stored away and forgotten
- Revenue generation opportunities
- New information-centric product and service opportunities
Business Analytics is More Than Big Data

Ensure the right quality of the data, apply advanced analytics, detect patterns, predict outcomes, and process data in real time.

Collect and manage relational and non-relational data, harness the power of all data to drive innovation and identify new business opportunities.

Enterprise class security & availability managed seamlessly with other Microsoft solutions or provisioned in minutes on Windows Azure.

Combine desktop data files, data marts, data warehouses, and cloud sources with Excel 2013, SQL Server 2013 and HDInsight.
Microsoft’s Business Analytics Solution
Built for the Cloud OS

Microsoft’s Business Analytics—Big Data, Business Intelligence, and the new SQL Server 2012 Parallel Data Warehouse—provides a complete data collection, management and insight solution built for the Cloud OS.

- Discover and process any data, any size, anywhere—video, text, etc.—with Big Data.
- Manage and store data with the same tools you already use—or connect with the world’s data.
- Gain insights, share and distribute immersive data experiences using tools like Excel 2013.
What every agency should strive for...

- Insight from Social Media—customer issues and kudos
- Telemetry data to identify manufacturing or service issues
- Identify and mitigate or avoid likely fraud situations
- Avenues of information are used—whether patient information to provide better healthcare, retail data to identify new sales opportunities, or other business specific needs

Combine data sources no matter the source or type—such as social media feeds, geospatial data from a mapping database, and regional marketing campaign plans, to create your own mashups of meaningful data to track marketing efforts.
All businesses, regardless of industry, need to collect, manage and share data, and use that data to make decisions. Which are important in all types of work are:

- Healthcare
- Financial Services and Insurance
- Utilities and Telecommunications
- Government, Law Enforcement, and Intelligence
- Pure Science
- Oil and Gas
- IT and Information sectors
- Retail and E-Commerce
- Manufacturing
Business Analytics is needed everywhere

Intelligence Gathering

IT infrastructure optimization

Legal discovery

Social network analysis

Traffic flow optimization

Web app optimization

Churn analysis

Location-based tracking & services

Natural resource exploration

Weather forecasting

Healthcare outcomes

Customer Churn Analysis

Fraud detection

Life sciences research

Advertising analysis

Equipment monitoring

Pricing Analysis

Smart meter monitoring
Reduce Retail Fraud With Better Detection

Fraud detection solutions are powerful but can be limited by the scope and speed of data; leverage Big Data and Data Warehousing to collect and manage data.

Avoid retail fraud: Data from various sources within a retail store, such as your video footage and transaction data stored in a PDW, and public crime statistics (possibly available for your country from the Windows Azure Marketplace), can be collected and outlier events can create alerts and lead to instant action.

Use real-time-processing against vast data amounts to avoid fraud.

1.5 M
Fraud reports in 2011 (US)—an all time high.