



# Identifying New Revenue Streams with Big Data

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Creating Data-Driven Products and Services

Forward-looking business leaders and analysts agree: big data is the next frontier for innovation, competitive advantage, and productivity.<sup>1</sup> And it's creating new revenue opportunities across nearly every industry.

The key to leveraging big data is being able to quickly generate totally new insights based on an analysis of all of your structured and unstructured data. Analyzing all your data as a single data set regardless of data type can uncover patterns and behaviors that would be impossible to get from traditional business intelligence.

Today, companies are using these insights to create **innovative, data-driven products and services** that address pressing business priorities and customer needs. For example, some are selling datasets along with analytic tools to customers so they can analyze the data themselves. Others are offering custom reports that provide new and valuable insights that customers need. And in other cases, businesses are using operational insights gained from big data to provide value-added services that differentiate their offerings and boost customer retention.

<sup>1</sup> [http://www.mckinsey.com/insights/business\\_technology/big\\_data\\_the\\_next\\_frontier\\_for\\_innovation](http://www.mckinsey.com/insights/business_technology/big_data_the_next_frontier_for_innovation)

# What's the Opportunity for Your Business?

How you can harness big data such as your CRM, social media, transaction, geo-location, mobile app, sensor, product usage, and sales and e-Commerce data? What's possible when you enrich it with all types of data from third parties, governments, and the Internet? All of this data and more can be aggregated and analyzed together – simultaneously – and then used to deliver totally new data and analytic product offerings that insight-hungry customers want and need today. For example:

- If you work for a digital advertising agency, you could sell analytics reports as a value-added service to help companies make their ad campaigns more impactful.
- If you sell mission-critical hardware assets such as servers, disk storage or routers, you can operationalize analytically-driven, predictive maintenance offerings so customers are assured 100% uptime.
- If you work for a software company, you can provide analytics dashboards that show customers how users are actually using the software.

The possibilities for monetizing your big data by creating new products and services are endless. The challenge, of course, is turning all of your big data into valuable, new insights. How can you bring together and analyze all of your data – structured and unstructured – and analyze it to deliver innovative new data and analytically-driven products and services? What are companies in different industries achieving today? And how are they realizing competitive advantage?

This paper answers these questions and explores what's needed – from a technical perspective – for your business to get started with data-driven products and services. It also shares real-world stories about companies that have successfully created them, opened up new revenue streams, attracted and retained customers more effectively, and more.

Unless you can develop new, differentiating offerings that closely align with customer needs and desires, how else can you create new revenue streams, gain competitive advantage, and boost customer loyalty?

## The Enablers: Big Data Analytics

Big data analytics is the key to creating and operationalizing data-driven products and services. With big data analytics, you can unlock insights from all your data types, as it enables you to analyze all of your structured, semi-structured, and unstructured customer data together at one time. It's powerful because it enables you to combine, integrate and analyze all of your data at once – regardless of source, type, size, or format – to generate the insights needed to solve a wide range of business challenges.

With big data analytics, you can combine, integrate and analyze **all** of your data – regardless of source, type, size, or format so you can quickly and affordably scale to huge volumes of data and analyze them for insights.

But getting to these insights quickly requires moving beyond the limitations of traditional enterprise data warehouses (EDWs) and business intelligence (BI) software, which have significant limitations. First, it can take a great deal of time to collect, prepare, structure and analyze all of your fragmented and often unstructured data. Second, most line-of-business professionals have to rely on IT to gather the data and organize it in a data warehouse of structured data – a prerequisite for using traditional business intelligence. And often, by the time the data is ready, the business needs have changed or it's too late to analyze it in time to aid decision making.

And third, traditional EDWs were simply never designed to analyze today's big data – which is a critical source for data discovery as new kinds of insights that have never been available before. This data is often unstructured data from new sources like social media, web, machine sensors, mobile interactions, and log data. EDWs can't handle unstructured data – and any attempt to structure it in tables limits its potential value as a source of insight. You know you have big data when it's so large and complex that it's hard to process using your existing data management tools or traditional data processing applications. This could mean having petabytes of data from various resources.

For most companies, traditional EDWs and their required structures are simply too slow and costly to be useful for new product innovation. At the same time, a typical EDW can't run sophisticated analytics – for example, clustering, click path analysis, and advanced data mining – needed to operationalize data-driven offerings.

# Datameer Delivers Insights from Big Data Analytics Faster

Datameer addresses these challenges by 1) delivering big data analytics that are powerful and yet so simple that product managers and engineers can use them to turn big data into valuable, timely insights and 2) developing a solution that runs on Hadoop – where you can aggregate and integrate all types of data in one place. With our solution, there's no need for a data scientist to integrate, cleanse, prepare, analyze and visualize your data. We provide a one-stop-shop for getting all your data types into Hadoop using wizard-based data integration; quickly analyzing that data with point-and-click analytics, and then visualizing results with using drag-and-drop visualizations.

Datameer gives you everything you need to integrate, analyze, and visualize all your data quickly and cost effectively. We support **every** step in the analytics process, empowering you with:

- 60+ out-of-the-box connectors and a file parser to integrate any data
- 270+ pre-packaged data algorithms in a simple-to-use spreadsheet interface
- Join, transform and enrichment functions
- Tools for visual data wrangling
- Self-service schema on read capabilities (eliminating the need for ETL and static schema)
- 30+ visual widgets plus free-form infographics for stunning visualizations
- Automated clustering, decision tree and recommendation functions to segment customers
- Behavior and time series analytics

Now you can ingest, cleanse, prepare, analyze and visualize all of your data in hours or days, not months.

# Everything You Need to Operationalize Data-Driven Products and Services

We support every step in the analytics pipeline, empowering you with all of the connectors, integration tools, data security (such as role-based data governance), and pre-built data analysis functions needed to jump-start the process. Use our visual widgets and free-form infographics to generate stunning visualizations that make data instantly meaningful to you and your customers. In addition, our solution is fully extensible using IoC architecture, APIs for custom connectors, and more.

As a result, you can turn your data into innovative products and services – and answer questions such as:

- How can we speed up product prototyping?
- Do we have analytics IP that is valuable to others – for example, to help them be more efficient?
- What product features drive user engagement and what features result in drop off?
- Can we use machine data to predict service needs or optimal configurations for customers?
- How can we respond to customer requests in an agile way?
- Can we provide a monitoring service to our customers to add product value?

## Exploring Customer Successes

Our solutions deliver bottom-line results. For example, Workday, the leading provider of enterprise cloud applications for human resources and finance, uses Datameer to provide customers with reports on how their employees are actually using their HR software.

To better understand the benefits of Datameer, consider the following customer case studies.

# OPower: Giving Customers Personalized Energy Usage Insights and Recommendations



OPower is a leading energy management company that combines a cloud-based platform, big data, and behavioral science to help utilities around the world reduce energy consumption and improve their relationship with customers. OPower, in partnership with 93 utilities, helps over 32 million consumer households to lower their energy use and costs and significantly reduce carbon emissions. Working with smart meter, thermostat and other device data from Pacific Gas and Electric, OPower gathers over 7 million data points each day and provides analytic reports to utility companies. These reports are included in household bills to encourage consumers to conserve energy by comparing their household energy usage to their neighbors.

But OPower found that their MySQL database infrastructure could not analyze this volume of data quickly enough, and much of the data they were gathering was not being fully used. In fact, while OPower had over 60 instances of MySQL, they still couldn't run analyses across the breadth of their data. To address this issue, OPower created an "Energy Data Hub" by migrating their data infrastructure from MySQL to Hadoop and using Datameer for analytics. Their data scientists led the decision to go with Datameer, as they needed a solution with self-service and end-user tools that data engineers and product managers could use to access and analyze data in over 200 tables. Datameer clearly met both of these requirements.

Today, OPower product managers use Datameer to answer client questions directly – without IT assistance (see **FIGURE 1**). They can run analyses independently and quickly – for example, using consumer thermostat data to understand patterns of energy usage. The end result? OPower has dramatically lowered the time required to access data for analytics. And now product managers are empowered with insights they can use to help clients reduce energy consumption by \$500 million and CO2 output by \$7 billion pounds.



**FIGURE 1:** OPower Uses Datameer to Deliver Energy Use Reports to Consumers

# NetApp: Building a Premium Support Service to Maximize Server Uptime for Customers



Net App, an enterprise hardware company, was generating and collecting data that was doubling in size every 15 months. Not only were their data volumes growing rapidly, but their data was stored in hundreds of different semi-structured and unstructured log formats. This variability – combined with the massive data volumes – made it extremely difficult to aggregate all of their data in one place, standardize it, and analyze all at once so they could generate new insights needed by the business. For example, they wanted to combine customer purchase data, product support logs, and server logs to predict when a server might run out of storage or memory capacity.

Net App used its new, data-driven intelligence to create a “Premium Support” service as a new source of revenue for the business. Through this service, Net App can analyze real-time sensor data received from customers’ network-connected hardware, use it to predict issues and potential server failures, and send out replacement parts before an at-risk component actually fails (see Figure 2). Sales can also look at asset usage patterns to improve forecasting and renewal negotiations.



FIGURE 2: Net App Uses Datameer to Deliver a Premium Support Service



## AKQA: Providing Reports with Insights into Ad Campaign Effectiveness



AKQA uses Datameer to combine clickstream logs, Google Analytics, and third-party enriched log data to provide brands and advertisers with analytic reports about how their advertisements are performing. In the past, it took AKQA's account team 40 hours to build such customer facing reports. Now, with Datameer, they can produce the same reports in just a few hours. Moreover, these reports can now be scheduled and dynamically updated, saving an average of 40 hours per account every time a report is generated.

AKQA's IT team began giving Hadoop-based log data to business analysts, making the existing log processing flow scalable by moving from mysql and custom scripts to Hadoop and Datameer. AKQA started out with a small Hadoop cluster, so large portions of the data were still being handled by MySQL. As a result, the IT team struggled with on-boarding new customers due to a manual, inflexible custom-scripted data flow that lacked data governance.

The new solution addresses these issues and enables self-service for both power-user analysts and business users. Now AKQA can prepare and integrate the data before visualization in Tableau and realize the benefits of modernized IT data flows.

## It's Time to Take Big Data Seriously

As noted by McKinsey Research, big data is the next frontier for innovation, competition, and productivity. And increasingly, how companies use big data will heavily impact their ability to compete and grow.<sup>2</sup>

But exploiting this new frontier will require investment in big data analytics solutions like Datameer, which empower analysts and business users alike to quickly and easily analyze all of your data at once – regardless of data size, type, or other variable – for deep and valuable new insights. These insights are at the core of what makes data-driven products and services so valuable – and thus able to generate new revenue and boost customer satisfaction and retention.

To learn more about how Datameer can help you generate data-driven product and services as new revenue stream, please contact us at **+1.800.874.0569** or visit us at [www.datameer.com](http://www.datameer.com).

<sup>2</sup> [http://www.mckinsey.com/insights/business\\_technology/big\\_data\\_the\\_next\\_frontier\\_for\\_innovation](http://www.mckinsey.com/insights/business_technology/big_data_the_next_frontier_for_innovation)

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