

# Know your customer inside and out

*Use big data to build an integrated, more personalized approach  
to marketing, business strategy, customer service and more*

# IBM

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# Introduction

For years, organizations have recognized that a better understanding of customers can translate to more sales, increased customer satisfaction and reduced customer churn. Initiatives focused on a 360-degree

view of the customer have gone a long way toward providing those benefits by synthesizing customer profiles, sales history and other structured data from multiple sources across the enterprise.

But today, customer-centric organizations are discovering that there is more opportunity for growth when they enhance that 360-degree view with information from more sources, both within and beyond the enterprise (see Figure 1). Information in email messages, unstructured documents and social media sentiments—previously beyond reach—is now extending the 360-degree view.

**Organizations that make full use of these data sources can deliver new insights and a sharper competitive edge by making the customer’s experience more personalized, encouraging loyalty and accelerating sales.**



Figure 1. Information sources needed for an enhanced 360-degree view.

A traditional 360-degree view shows that John Jones and J.T. Jones are the same person, that John and Mary are married and have three children, that they live on Elm Street and that they made three purchases from the Main Street store last year. An enhanced 360-degree view reveals that Mary called four times to complain about the quality of one of those three products, that John posted comments about the poor quality in an online forum, and that Mary has just tweeted questions about a competitor's product. Now the retailer knows that John

and Mary are at risk of going to a competitor and can respond with a personalized customer-service email or a phone call with a targeted offer.

**An enhanced 360-degree view empowers customer-facing professionals with the right information to engage customers, develop trusted relationships and improve customer loyalty.** In addition, it enables marketing teams to target the right customer with the right offer at the right time, increasing the success rate for cross-sell and up-sell opportunities.



**The enhanced 360-degree view in action: Insurance**

A leading insurance provider wanted to provide its 14,000 agents with a single view of customers and products. With an enhanced 360-degree view enabled by IBM technologies, the provider was able to:

- Improve agent retention
- Reduce average call-handling time (AHT) by an average of 3 seconds, which improved agent productivity
- Cut the costs of hiring and training new agents
- Save USD 11 million a year by using IBM® Watson™ Explorer to deliver value equal to 141 full-time employees

## Understand customers better in a world of big data

As the business landscape changes, 90 percent of C-suite executives foresee deep collaboration with customers within the next three to five years<sup>1</sup> and expect to rely on digital technologies to boost engagement, create one-to-one dialogue and provide a superior experience. In addition, the IBM 2013 Global C-Suite Study found that outperforming organizations are 54 percent more likely to collaborate deeply with customers.<sup>2</sup> That collaboration will only increase: 60 percent of CEOs expect customer influence to go beyond developing products to shaping business strategy.<sup>3</sup>

*“As customers gain more power over the business via social media, their expectations keep rising and their tolerance keeps decreasing.”<sup>4</sup>*

—CIO, Retail, Turkey

However, with more information, options and resources readily available to consumers than ever before, customer loyalty is at risk. Comparison shopping is as easy as a few mouse clicks, and previously loyal customers can quickly discover an array of new products, new services and new vendors, and learn what other shoppers like and dislike—all without leaving their laptops, tablets or mobile phones. Reputations can be built and burned by opinions shared online, texted and tweeted by friends, followers, bloggers and advocacy groups.

The challenge for organizations is to tap into this vast flow of online commentary, weed out the information that matters, and then link that meaningful sentiment to specific customers in order to improve communications.



### The enhanced 360-degree view in action: Telecommunications

A tier-one mobile service provider needed to improve service and customer satisfaction while controlling costs in the contact center. With an enhanced 360-degree view enabled by IBM technologies, the service provider was able to:

- Reduce its average AHT
- Boost first-call resolution rates
- Increase its Net Promoter Score



**The enhanced 360-degree view in action: Government**

A US state's Department of Human Services wanted to improve service delivery to citizens. With an enhanced 360-degree view enabled by IBM technologies, the organization was able to:

- Improve quality of service
- Improve service eligibility management
- Reduce duplication issues

**The first step in gaining an enhanced 360-degree view of your customers is to identify the available information as well as its location.** The basic customer profile that exists across various internal systems provides a baseline of information, including name, address and contact details.

**Next, you need a view into sales transactions, support history and other interactions** that exist in financial systems, customer relationship management (CRM) systems, customer support systems and other key applications. Then consider incorporating contracts, correspondence and information stored in email, PDFs and other unstructured documents.

**Finally, look beyond the enterprise into social media** to create a complete picture of customer preferences and sentiments.

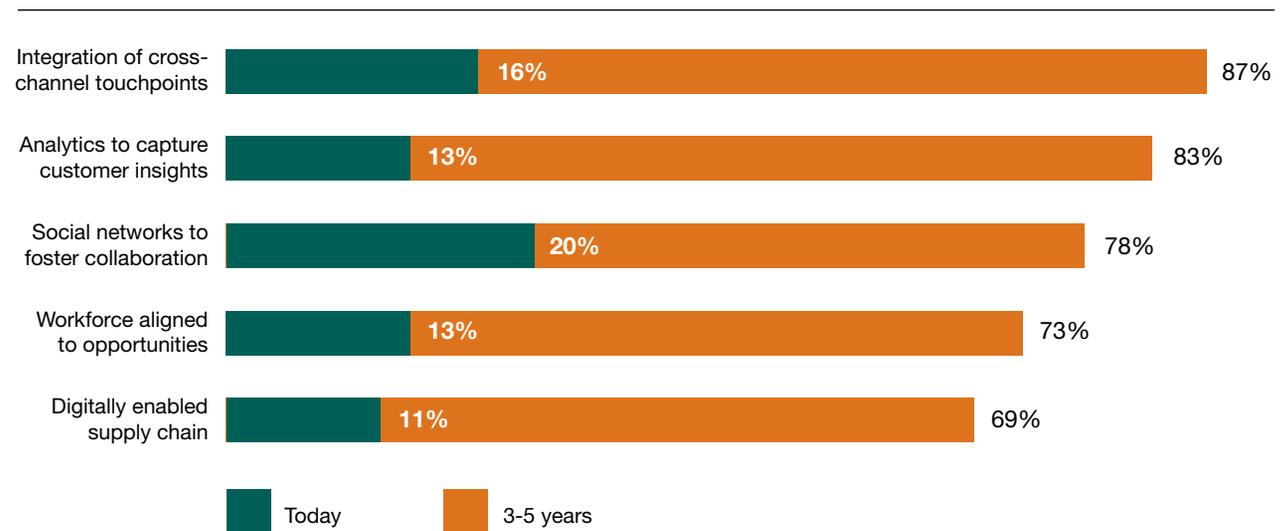
Social data can be full of useless “noise,” so be precise and thorough when evaluating information sources for trustworthiness. This effort will help you build a complete, well-informed picture of your customer.

As you consider all these information sources, it's also important to consider the level of confidence you have in each one. Which information is suitable for financial reporting? Which is appropriate only for trend analysis? Which can provide possible insights into a customer's behavior, and which is sufficiently trusted that it can be used for important decisions?

*“Big data is the buzz and digital is now the new normal. We need to change the way we work with our clients in this continuous virtual cycle.”<sup>5</sup>*

—CMO, Banking, Singapore

A single view increases satisfaction and maximizes the lifetime value of the relationship with a customer, a patient, a member or a citizen — any individual or organization critical to the business. Gaining a full understanding of these entities — what makes them tick, why they buy, how they prefer to shop, why they switch, what they’ll buy next, what factors lead them to recommend a company to others — is a strategic endeavor for virtually every company. In fact, according to a report from the IBM Institute for Business Value, 83 percent of CMOs plan to include customer analytics into their digital strategy in the next three to five years (see Figure 2).



Source: IBM Institute for Business Value. “The Customer-Activated Enterprise: Insights from the Global C-Suite Study.” October 2013.

Figure 2. Customer analytics for capturing insights rank as a top future requirement for CMOs.

# Build an enhanced 360-degree view of the customer

An enhanced 360-degree view of the customer is a holistic approach that takes into account all available and meaningful information about the customer to drive better engagement, more revenue and long-term loyalty. It combines data exploration, data governance, data access, data integration and analytics into a solution that harnesses the volume, velocity and variety of big data.

## The enhanced 360-degree view in action: Financial services

A financial services group sought to improve targeted marketing and cross-selling efforts with a single view of its customers. With an enhanced 360-degree view enabled by IBM technologies, the organization was able to:

- Save USD 10 million annually on integration and associated costs
- Increase market share
- Reduce direct mail and operational costs by eliminating both duplicate mailings to the same households and redundant systems, improving application performance



To establish an enhanced 360-degree view of your customers or other key entities, you must be able to:

- **Federate search, discovery and navigation securely** across a wide range of applications, data sources and formats
- **Eliminate duplicates and rationalize conflicting information** through matching, linking and semantic reconciliation of master data to create and maintain a golden record
- **Integrate high-quality data** across multiple enterprise systems
- **Manage new data types and navigate quickly** through massive amounts of both structured and unstructured information from within and beyond the enterprise to find the most pertinent information
- **Create a single, up-to-date view** of customers or other key entities that can be used throughout the organization
- **Leverage Hadoop systems** so that information of all types, in any volume and at any velocity, can be incorporated into the single view
- **Assess streaming data sources** to analyze perishable data quickly and to select valuable data and insights to be stored for further processing
- **Collect all customer data at one central location** from which it can be more easily managed, analyzed and shared

## Expand your 360-degree view with IBM solutions

Few organizations, if any, will ever process and analyze all the information they accumulate; data typically continues to grow and diversify ahead of attempts to map and analyze it. However, by identifying, classifying and using all appropriate data, organizations can gain valuable insights that would otherwise go undiscovered. **IBM provides several important capabilities to help you make effective use of big data and improve the customer experience.**

**IBM Watson Explorer** navigates and filters large amounts of data in nearly any format. It helps simplify how line-of-business users — whether researchers, call center employees, executives, data scientists or others — navigate and explore different data



repositories, helping them truly understand the information they have. Watson Explorer can also combine data and analytics from multiple enterprise systems — including CRM, enterprise content management (ECM), master data management (MDM),

business intelligence (BI), supply chain management (SCM) and more — into a unified view designed for use by sales and service employees to bring the benefits of the enhanced 360-degree view directly to first-line interactions with customers.

### IBM InfoSphere® Master Data

**Management (InfoSphere MDM)** creates a golden record for trusted customer data. With InfoSphere MDM, you can match, link and resolve duplicate customer information that may be scattered across multiple information silos. You can also identify and maintain relationships, hierarchies and households to discover links between master entities, and enrich master records with links to additional unstructured information such as text, email messages and PDF documents. The InfoSphere MDM probabilistic matching engine can be run natively in

IBM® BigInsights for Apache™ Hadoop®, providing a capability unique to IBM—high-speed matching of master records right where customer analytics take place.

### IBM InfoSphere Information Server

integrates data from diverse sources and keeps the consolidated view fresh as data changes to help overcome the errors and inconsistencies common in customer data. It also analyzes data, validates it against business rules, cleanses and enriches it, and monitors the ongoing quality of the data, so your enhanced 360-degree view is based on the best available data.

**IBM InfoSphere BigInsights**, the IBM distribution of the Apache Hadoop open source framework, includes analytics and makes it easier to deploy and manage big data capabilities.

**IBM InfoSphere Streams** allows user-developed applications to quickly ingest, analyze and correlate data in motion.

**IBM Enterprise Content Management (ECM)** solutions [capture](#), [activate](#), [share](#), [analyze](#) and [govern](#) unstructured data to lower costs and risk while improving efficiency.

### IBM Watson Foundations: The cornerstone of big data and analytics

Each of the components described previously is part of [IBM Watson Foundations](#), the IBM big data and analytics platform, which provides capabilities to gain fresh insights in real time and act upon those insights with confidence. Comprising the IBM InfoSphere portfolio as well as analytics, BI and other industry solutions (see Figure 3), it delivers innovative stream processing, in-memory computing, advanced predictive analytics and exploration capabilities — along with the security, privacy and governance you require. IBM Watson Foundations is packaged so that you can address immediate needs, build on what you have and realize value at every step.

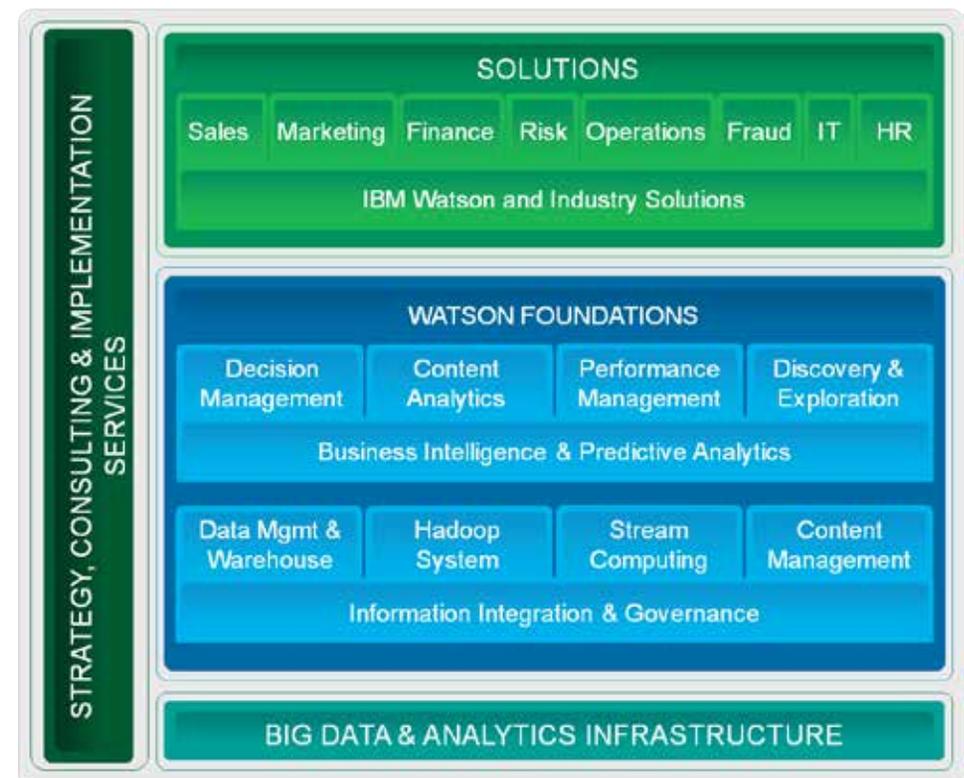


Figure 3. Gain fresh insights in real time and act upon those insights with confidence with IBM Watson Foundations.

### Support big data platforms with scalable integration and governance

As a critical element of IBM Watson Foundations, **IBM InfoSphere Information Integration and Governance (IIG)** provides market-leading functionality to handle the challenges of big data.

InfoSphere IIG provides optimal scalability and performance for massive data volumes, agile and right-sized integration and governance for the increasing velocity of data, and support and protection for a wide variety of data types and big data systems. InfoSphere IIG helps make big data and analytics projects successful by giving business users the confidence to act on insight.

IBM big data, integration and governance capabilities include:

- **Metadata, business glossary and policy management:** Define metadata, business terminology and governance policies.
- **Data integration:** Handle all integration requirements, including batch data transformation and movement (IBM InfoSphere Information Server), real-time replication (IBM InfoSphere Data Replication) and data federation (IBM InfoSphere Federation Server).
- **Data quality:** Parse, standardize, validate and match enterprise data with IBM InfoSphere Information Server for Data Quality.
- **Master data management (MDM):** Act on a trusted view of your customers, products, suppliers, locations and accounts with InfoSphere MDM.

- **Data lifecycle management:** Manage the data lifecycle from test data creation through retirement and archiving with IBM InfoSphere Optim™.
- **Data security and privacy:** Continuously monitor data access and protect repositories from data breaches, and support compliance with IBM InfoSphere Guardium®. Mask and help protect sensitive data with InfoSphere Optim.
- **Hadoop:** Discover and analyze new business insights hidden in large volumes of structured and unstructured data (data at rest) with BigInsights.
- **Stream computing:** Continuously analyze massive volumes of streaming data (data in motion) with sub-millisecond response times with InfoSphere Streams.

## Resources

To learn more about the IBM approach to creating an enhanced 360-degree view of the customer, please contact your IBM representative or IBM Business Partner, or visit one of the following:

- **Use cases:** [Enhanced 360-degree view use cases](#)
- **Video:** [Enhanced 360-degree view of the customer](#)
- **Podcast:** [How to get an enhanced 360-degree view of the customer](#)



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Software Group  
Route 100  
Somers, NY 10589

Produced in the United States of America  
March 2015

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<sup>1,2,3,4,5</sup> IBM Institute for Business Value. “The Customer-Activated Enterprise: Insights from the Global C-Suite Study.” 2013. [ibm.com/services/us/en/c-suite/csuitestudy2013](http://ibm.com/services/us/en/c-suite/csuitestudy2013)



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