



UNLOCK THE POWER OF **BIG DATA**

WITH SAP SERVICES

RUN BETTER.



BIGDATA Services from SAP

Business leaders across all industries are looking for innovative ways to impact the way they do business and ultimately, the ways they serve their customers. At the same time, IT departments are looking to improve the ways they serve their line of business constituents by leveraging the latest technologies that can be applied simply and securely.

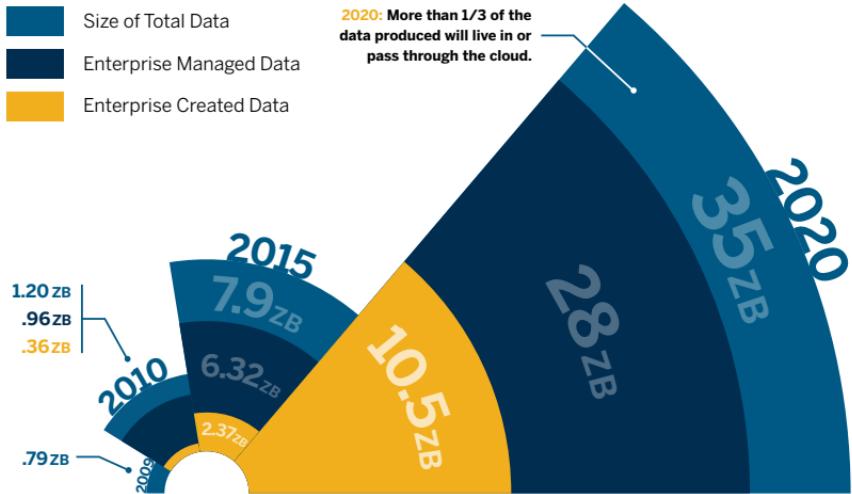
Advances in predictive analytic technologies, the proliferation of data sciences, lower cost data storage and industry-specific applications—together known as Big Data solutions—are creating opportunities for both the line of business executive and IT leadership to drive innovation through the exploration, operation, accessibility and usability of data.

Over 200,000 SAP customers look to SAP for best practices on running their business. With superior capabilities in 25 distinct industries, who better to trust than SAP Services when seeking customized guidance on how to leverage the many sources of data from those processes to gain new and meaningful insights, and put Big Data to work for you?





The Growth of BIGDATA



Gartner defines Big Data as “high-volume, high-velocity, and high-variety information assets. These assets demand cost-effective, innovative forms of information processing for enhanced insight and decision making.”

According to University of Pennsylvania economist Francis Diebold, “the term Big Data, which spans computer science and statistics/econometrics, probably originated in the lunch-table conversations at Silicon Graphics in the mid-1990s.”

Since the phrase Big Data was first coined some 20 years ago, Big Data has gotten REALLY big. How big?

- According to CSC, data production will be 44 times greater in 2020 than it was in 2009.
- An SAP Performance Benchmarking study found that 2.5 Billion Gigabytes of data are created every day. And that number doubles every month.
- And that CSC study also found that 70% of all data is created by individuals not enterprises.



Making BIGDATA Work for You

With this explosion of information, the first question asked is, "What can Big Data do to help grow my business?"

As we can see from the analysis of trends and outcomes, Big Data can help inform and enable your strategy, deliver previously unknown customer insights, support customer buying behaviors and develop new business models to drive competitive advantage.

As the data explosion continues, developing analytical competencies will become ever more critical for marketing, sales, finance, human resources and operations organizations, as it will for IT executives responsible for integrating Big Data technologies and building enterprise wide capabilities.



TREND

Increased global competition and the speed at which companies must adapt

Need to quickly reinvent existing business models

Manage the expanding amounts and variety of information available to make sense of your business

Customer demand for better service and more personalized offers

Growing use of technology that apply insights continuously through your people and processes supporting business transactions

HOW BIG DATA ENABLES

STRATEGY

Allows organizations to get a balanced view of internal and external information to inform strategic decisions

BUSINESS MODELS

Fosters agile technology environments that allow organizations to revamp business processes to access new information sources

COMPETITIVE ADVANTAGE

Provides analytic capabilities that drive better outcomes, anticipate the future and improve time to value of information analysis to get the "big picture"

CONSUMER INSIGHTS

Understand customer sentiment about your products and services, unlock customer insights and identify trends in real-time

PROFITABILITY

Visualize and foster optimal business scenarios that increase margin, reduce administration, anticipate fraud and track valuable assets

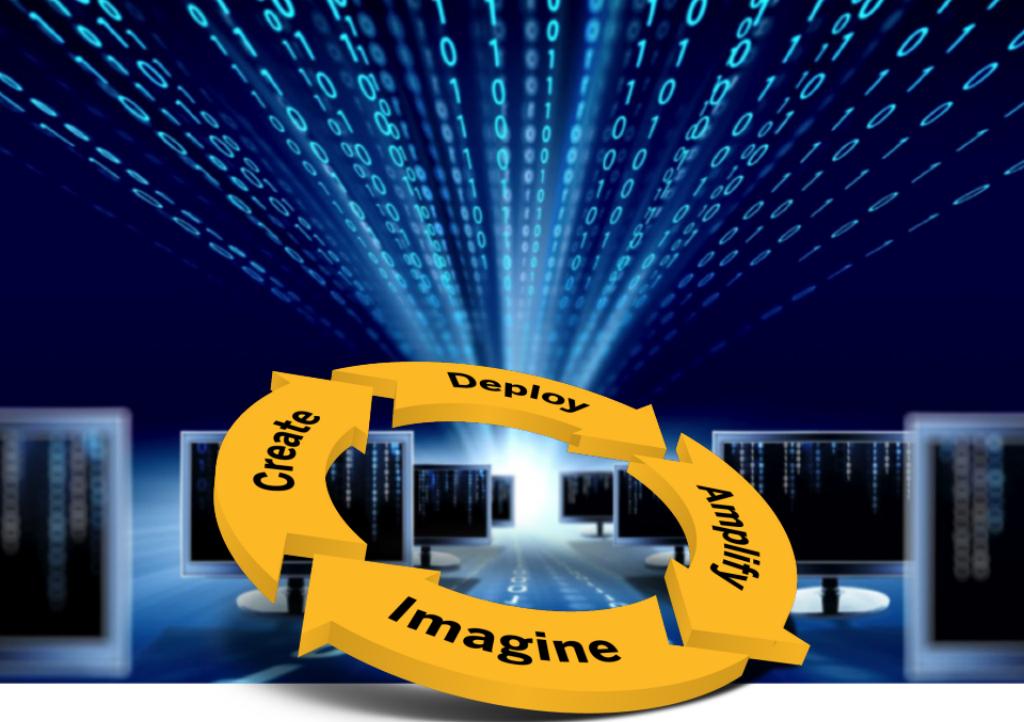


A Simplified Experience

After determining **WHAT** Big Data can do for your business, the next question is, **HOW?**

- Do I have the data I need right now?
- Do I have the ability to access it?
- Once in hand, how do I make sense of it?
- How can I manipulate it as business conditions change?

Big Data services from SAP provides a holistic, simple set of services that bring together our deep knowledge of Big Data and technical innovation, with years of experience and expertise. Used effectively, SAP Services can deliver on the promise of Big Data and help your business run better than ever.



Imagine How to Leverage **BIG**DATA

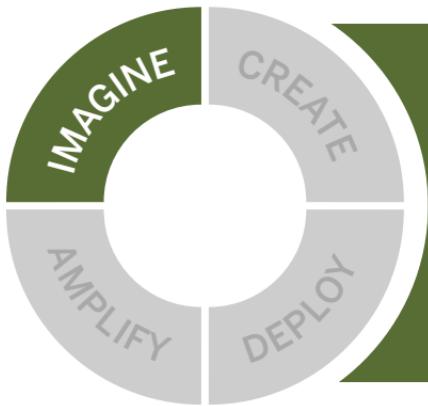


It all begins with helping you envision where you want your business to go and how Big Data will help you get there.

We begin with a conversation about your business objectives and what you want to achieve with SAP's Data Science experts. We brainstorm potential scenarios referred to as "use cases" that look for signals in your data capable of measuring performance, providing critical indicators about the business, identifying customer issues and complaints and helping you market more effectively and accurately; discovering relationships between large data sets across a wide variety of sources in real-time.

These efforts can be used to build a business case that demonstrates the financial justification of a Big Data initiative to your stakeholders in order to continue developing a broader strategy, or deliver incremental value for organizations that have already adopted Big Data technologies.

Once we have helped to establish the value of Big Data to your organization, we leverage Design Thinking methodologies and Strategic Advisory Services to proceed in jointly defining a Big Data strategy, roadmap and plan.



IMAGINE

Strategy and Planning

- Strategy Engagement & Advisory Services
- Innovation Workshop
- Data Discovery Services



BIGDATA Use Cases

Key to the success of Big Data projects is well-defined business use cases that help guide successful process transformations. Here are a few examples to get you started:

Real-time customer engagement

Offer real-time, targeted promotions to your customers as they enter your store or walk down aisles

Fraud detection

Analyze and identify fraudulent purchases and insurance claims as they occur

Brand sentiment

Capture and analyze social media comments to improve customer experience and optimize campaign performance

Predictive maintenance

Analyze continuous machine-data diagnostics to avoid performance issues and predict maintenance needs

Network optimization

Understand usage patterns and trends to optimize your distribution network

Insider threats

Identify suspicious behavior and pinpoint potential high-risk employees

Propensity to churn

Understand the likelihood of customer churn and implement real-time retention strategies

Asset tracking

Track high-value assets and identify loss risks and inefficient usage

Personalized care

Use advanced analytics to create personalized medical treatments

Personalized optimization

Simulate and predict the best pricing scenarios to increase revenue and margins on new offers and enhance customer satisfaction and loyalty

SAP's Data Science Organization

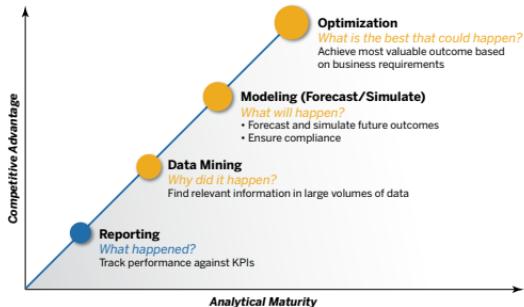


Our PhD-level data scientists utilize advanced mathematical modeling, forecasting, and optimization strategies to predict future outcomes and uncover critical needs and opportunities that will maximize your business performance. They are available for one-time expert advice sessions, or for ongoing management and support that will take you from understanding “what happened” to “what is the best that can happen.”

click to
enlarge 

SAP's Data Science Organization

Provides Support Across Your Analytic Needs



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SAP's Data Science Organization



- ✓ Intimacy of a Boutique
- ✓ Dependability of SAP

Exceptional People

- PhD level data scientists: best of the best
- Science + Technology + Business
- SAP products, custom solutions, 3rd party
- Customer success is the priority

Use Cases and Intellectual Property

- Breadth and depth of use cases
- Intellectual property provides jump-start
- Business questions addressed
- ROI calculated, industry-specific

SAP Solutions

- SAP HANA in memory platform (SQL, PAL, R, Hadoop extensions, SAS interoperability)
- SAP Predictive Analysis, SAP Infinite Insight (KXEN), SAP Lumira
- SAP BusinessObjects BI
- On Premise and Cloud
- SAP end-to-end capability



Create Your BIGDATA Opportunity

With a roadmap established and a strategy in place, Big Data services from SAP will then help you make your goals a reality by creating the optimal architecture to support Big Data. This includes securely integrating emerging technologies with your existing investment, designing a comprehensive infrastructure for you to acquire data from multiple sources, oftentimes from within existing data sets, implementing the optimal Big Data platform and expanding your governance policies to include Big Data implications.



CREATE

The Big Data Platform

- Data Science Proof of Concept
- Architecture Services
- SAP HANA Platform Implementation Services
- Database Implementation
- Data Acquisition, Management, and Governance Services

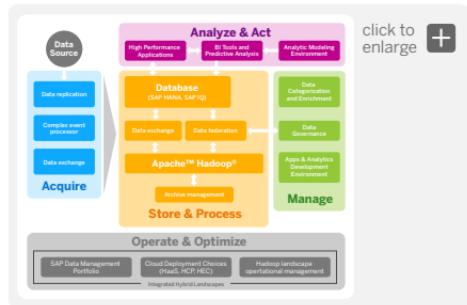
BIGDATA is about Innovative Architectures

SAP is ready to help you realize the vision of Big Data. Our simplified and integrated platform helps you capture, store, analyze, manage, and operate your Big Data at high speeds – generating the unprecedented business insights your company needs to succeed.

The SAP Big Data solutions are built around a single platform for online transaction processing (OLTP) and analysis, backed by common administration and operational management. It combines open-source storage software Apache™ Hadoop® with SAP HANA, SAP IQ, or other SAP database technologies to manage structured, unstructured, and semi-structured data sets. The result? You can perform faster, more powerful queries and analysis on massive data stores – and uncover untapped business opportunities.

The platform supports five important tasks, color-coded in the reference architecture:

- **Data movement** represented in the blue “Acquire” box is where we begin, as you first need the platform to extract data regardless of source or system.
- **Data storage and processing** shown here in orange. You need to store and process the data, then archive it in a variety of data warehouses or databases.
- **Analytics and action** in pink. Next, you use the platform to analyze the data via a number of BI tools in multiple modeling environments and take the necessary action to improve performance.
- **Data governance** shown here in the green “Manage” box. The data environment has to be consistently managed and controlled.
- **Operate** in grey. Decisions have to be made on how the data environment is deployed – in-cloud, on-premise, or hybrid.



Deploy Your BIGDATA Solution



We now come to the point in the process where deployment occurs and you begin to reap the rewards of Big Data.

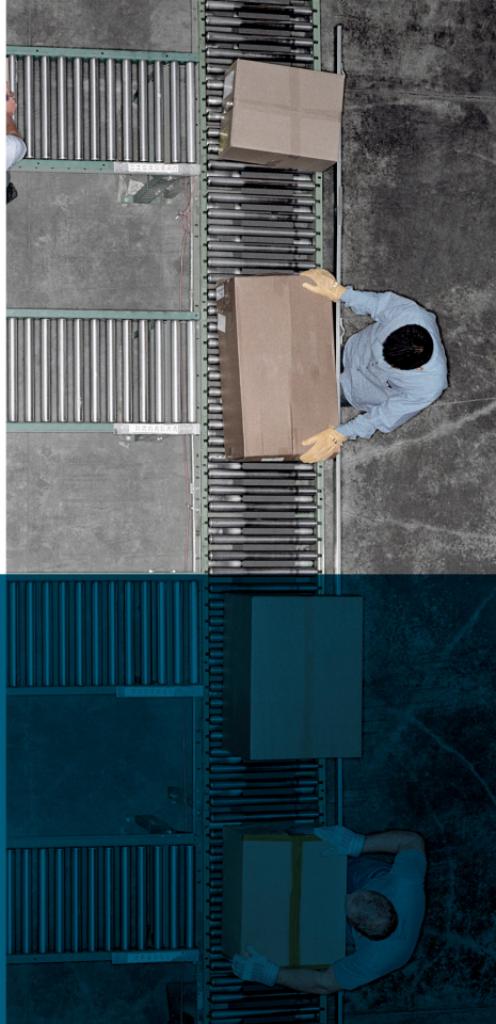
With the platform in place, our Big Data Analytics and Application Implementation Services will provide the capability to run analytic applications that let you see the bigger picture and analyze current and historic information. Your solution will predict future events so you can achieve better outcomes; provide high-impact visualizations to convey and share insights, and deliver the information where it needs to be, in the hands of your business users, even on their mobile devices.



DEPLOY

Analytics and Application
Implementation

- Reporting Services
- Visualization and Advanced Analytics
- Application implementation Services

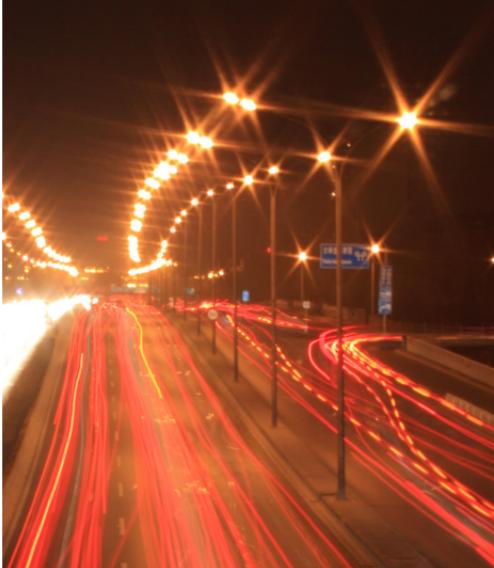
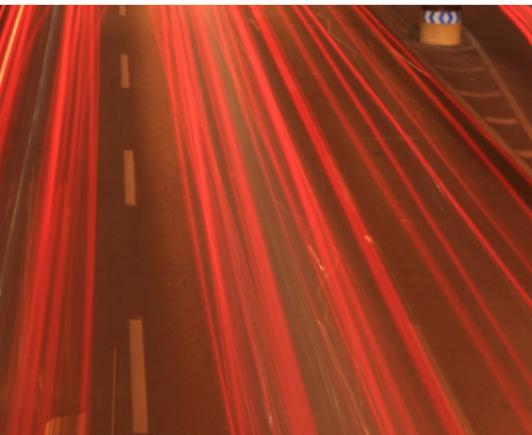




Amplify Your **BIG**DATA



With the power of Big Data now available to your business, SAP Services can now help you maximize your new environment and realize even greater business outcomes by deploying your solution in a manner that offers you maximum flexibility, minimal operating costs and best meets your needs. We can deploy your solution on-premise, cloud or in a hybrid model; and even maintain your environment for you. Finally, we can assess your organization's current capabilities, then introduce the new skills your organization will need to manage Big Data effectively by helping you establish your own competency center.



AMPLIFY

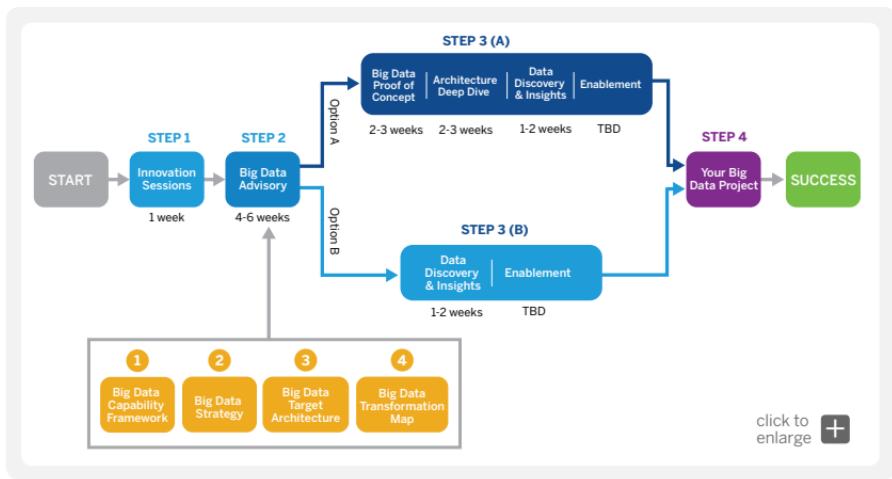
Operations and Optimization

- Infrastructure Management and Optimization Services
- Big Data Competency Center Establishment
- Big Data Cloud Services

A Proposed Journey and Timeline

SAP Services will meet you wherever you are on your Big Data journey

To facilitate and ensure success along your Big Data implementation path, we have defined a Journey to Big Data success that you can enter at different stages depending on your organization's level of maturity with Big Data.

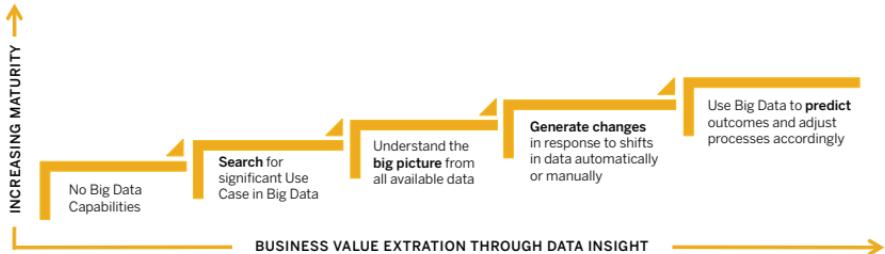


- If you have identified the business potential, but are still wondering if it makes sense for a Big Data project, start with a Design Thinking “Innovation Session”
- If you already have a defined use case, take advantage of our “Big Data Advisory” service that will help establish your Big Data specific strategy, roadmap and high-level architecture
- Next, is a “Proof of Concept” or “Data Discovery & Insights” service that uses an actual data sample to help you identify the hidden signals in their data
- With this step-by-step approach we can tailor the service to your specific needs, taking into consideration your level of maturity, while proposing a logical path to a successful Big Data project



How Far Is Your Organization Along Its BIGDATA Journey?

People & Skills Use Cases Governance Standards & Processes Information & Application Architecture



- » How mature are your capabilities?
To take our online assessment [CLICK HERE](#)



Portfolio of End-to-End **BIGDATA** Services from SAP



SAP Services can help a customer succeed with Big Data by realizing the promise and potential of SAP's Big Data Solutions.

Big Data Business Assessment

Establish a Business Use Case for Big Data, the first step towards defining a strategy, roadmap and plan

- Big Data Strategy Engagement
- Big Data Innovation Workshop

Big Data Value Discovery

Leverage data science to uncover signals hidden in Big Data that can lead to competitive advantage

- Data Discovery Services
- Data Science Proof of Concept

Big Data Design & Architecture

Assess your current capabilities then design and size the right technology environment, processes and organization

- Strategic Advisory Services
- Big Data Architecture Services

Big Data Platform Implementation

Implement your Big Data platform and data governance processes with our expertise

- SAP HANA Platform Implementation Services
- Database implementation
- Data Acquisition, Management & Governance Services
- Custom Development

Big Data Analytics & Application Implementation

Get the value out of your Big Data implementation with our Analytics and Application Implementation Services

- Reporting Services
- Visualization and Advanced Analytics
- Application implementation Services

Big Data Management & Optimization

Deploy, manage and optimize your Big Data solution

- Infrastructure Management and Optimization Services
- Big Data Competency Center Establishment
- Big Data Cloud Services



The Result?

Expanded business capabilities and opportunities with new insights from your data

Transform your business with data-driven insights. Empower employees with the right information at the right time through Big Data Analytics and Visualization.

- Personalize offers, optimize campaign performance and improve customer experience
- Maintain assets proactively before component failures
- Mitigate risks and potential fraud with superior, real-time insights



BIGDATA offers something for everyone

Industries

For industries, Big Data services from SAP means valuable new insights. Here are a few examples:

- **Automotive:** Evaluate manufacturing processes and predict customer demand
- **Banking:** Develop new products based on predictions of customer demand
- **Consumer products:** Analyze brand sentiment, predictive churn, and customer behavior
- **Healthcare:** Offer early detection of heart disease or cancer based on DNA
- **Insurance:** Gain greater insights into actuarial data
- **Oil and gas:** Crunch complex geological data and better manage logistics
- **Public sector:** Leverage information to manage intelligent cities
- **Retail:** Analyze real-time point-of-sale data
- **Telecommunications:** Maximize customer insights to create competitive products and services
- **Utilities:** Optimize power grids

Line of Business

For line of business (LoB) professionals, Big Data services from SAP means advantages to every discipline. For example:

- HR professionals can leverage Big Data to gain deeper knowledge of which employee benefits deliver the greatest value, and which are used by only a few employees
- Supply chain professionals can analyze hourly production data to identify which shifts run at peak efficiency
- Marketing professionals can sort through real-time data to identify purchasing trends – and quickly shift distribution to avoid stock-outs
- Finance professionals can perform quarterly closings more quickly and achieve financial excellence

Information Technology (IT)

For IT professionals, Big Data services from SAP means you can:

- Better support the organization's business goals
- More efficiently manage of core technologies
- Eliminate silos and bottlenecks
- Have more time to focus on strategic IT tasks and accelerating innovation
- Capitalize on and add insight to the data that already resides in your organization
- Maximize the value of data
- Gain real-time insights into a single source of truth
- Anticipate the future with predictive analytics
- Revolutionize the customer experience

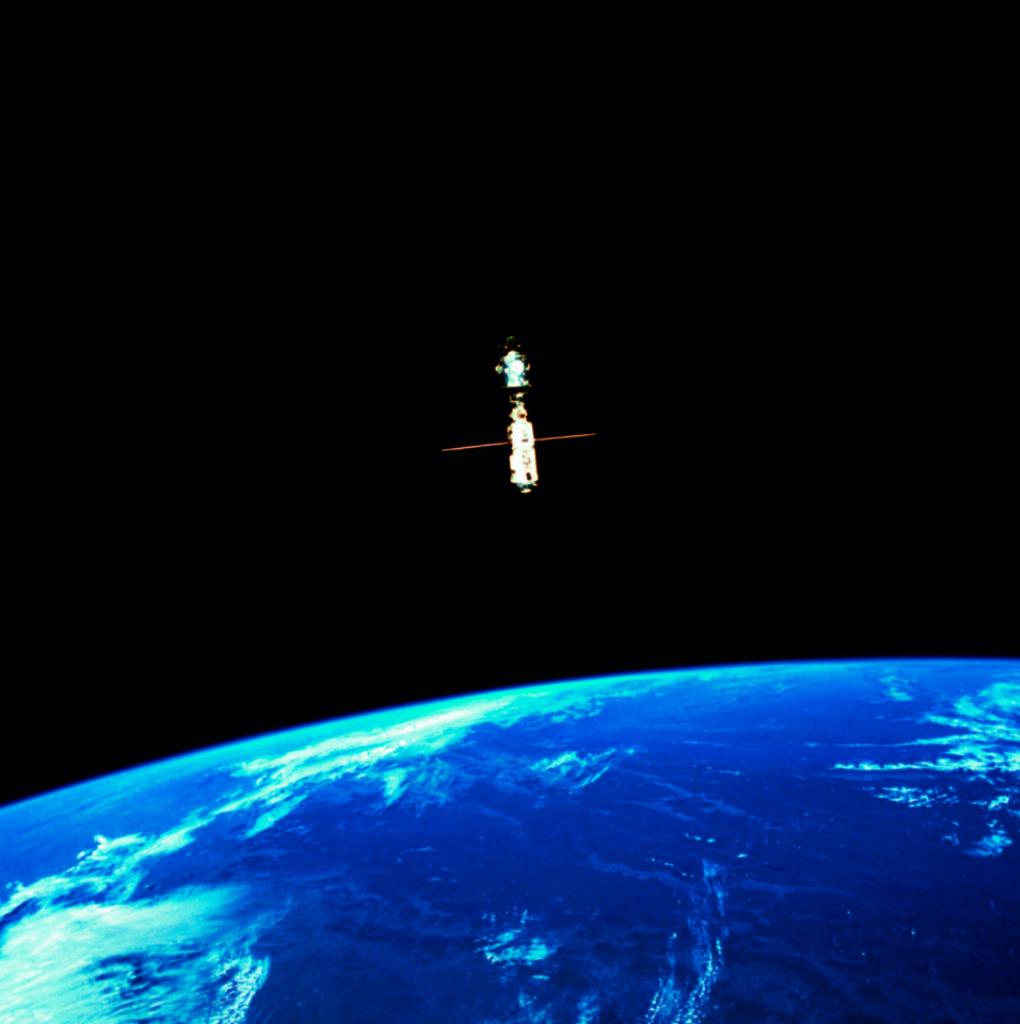
Your single, simple path to **BIG**DATA

Big Data is driving a new approach to business. It represents the technology that is enabling faster, more informed decisions based on high-volume, high velocity streams of data.

Big Data services from SAP gives you the tools, the expertise and the experience to help you run better than ever.

**SAP SERVICES –
UNLOCK THE POWER OF BIG DATA**

For more information, please visit: sap.com/bigdataservices



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