IDC White Paper

Six Patterns of Big Data and Analytics Adoption:

The Importance of the Information Architecture

An IDC white paper describes lessons learned from organizations engaged in big data initiatives and how they have approached those projects to maximize results. The paper details how companies have turned to the Oracle Big Data platform, which includes Oracle Engineered Systems—powered by Intel® Xeon® processors—to seamlessly harness big data to reduce costs and accelerate innovation. The Oracle big data Platform provides discovery tools, real-time processing and analytics, and integrated Hadoop, NoSQL, and relational data management that can be deployed in the cloud or on premises.

MOTIVATED TO SUCCEED

Organizations are expanding their analytics investments and think they have Big Data covered.

Over the past two years:

Started using new analytic techniques

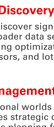
Began using new data types

Introduced new metrics or key performance indicators (KPIs)

HAMPERED BY REALITY

Only to learn that big data solutions require more than isolated technologies.

60%
of companies report that a **lack of data scientists** hinders big data and analytics project success



60%
of organizations are hampered by **too little business intelligence** (BI) and too few analytic applications developers

10%
of employees are **satisfied with the big data technology resources available** to them to support analysis and decision-making

LAYING THE FOUNDATION

The Oracle Big Data platform seamlessly integrates big data with your existing information architecture, providing applications to infrastructure and offering the performance, efficiency, and security that meet everyone's needs to enable:

Operational Intelligence:

Allows intuitive visualization tools to understand data—from conventional in-house to externally acquired data. Includes on-the-fly predictive and prescriptive analytics with real-time evaluation and action processing.

Exploration and Discovery:

Exploratory looks to discover signals and nonobvious relationships or patterns among broader data sets to gain new insights. Discovery requires data processing optimization, flexible schemas, statistical modeling, fast processors, and lots of memory.

Performance Management:

Modernizes the traditional worlds of data marts and data warehouses. Addresses strategic decisions about past performance as well as planning functions.

MEETING THE CHALLENGE

Six big data use cases at organizations across industries illustrate how the enterprises have used Oracle solutions—powered by Intel® Xeon® processors to modernize their information management platforms.

Banking

- **Goal:** Transformational modernization
- **Approach:** Become much more data-driven
- **Oracle Solution:** Oracle's Engineered Systems, including Oracle Big Data Appliance for Hadoop, Oracle Exadata for the database, and Oracle Exalytics for the analytical and reporting components
- **Result:** Changes that took the bank months to complete are now deployed in days.

Retail

- **Goal:** Agility and resiliency
- **Approach:** Design a flexible data warehouse to support ever-changing needs
- **Oracle Solution:** Oracle's information management reference architecture
- **Result:** Retailer lowered total cost of ownership and increased flexibility in supporting new data sources, new processes, and new systems.

Investment Banking

- **Goal:** Complementary expansion
- **Approach:** Address need for a new financial consolidation and risk assessment process
- **Oracle Solution:** Oracle's information management reference architecture, Oracle Exadata-based data warehouse, and Oracle Big Data SQL
- **Result:** Investment bank maintained a stable solution delivering tangible business value in the face of a changing physical architecture.

Travel

- **Goal:** Targeted enablement
- **Approach:** Increase shore excursions and onboard goods and service sales
- **Oracle Solution:** Oracle Real-Time Decisions, Oracle's Siebel CRM technology
- **Result:** Cruise ship operator provided customers with better service while maximizing revenue and minimizing costs.

Consumer Packaged Goods

- **Goal:** Optimized exploration
- **Approach:** Integrate unstructured and structured data in the data warehouse
- **Oracle Solution:** Oracle Big Data Appliance
- **Result:** Company gained a new technology solution to support its data exploration and discovery needs and established new processes and collaboration methods.

Higher Education

- **Goal:** Vision development
- **Approach:** Use an architectural development process for big data to expand from an existing data warehousing environment to a next-generation data warehouse
- **Oracle Solution:** Oracle Architecture Development Process
- **Result:** University ensured a tight linkage between its proposed technology and information architectures and business goals.

CONCLUSION

IDC's white paper details best practices that companies can adopt related to their information architecture for successful big data initiatives. Organizations that are looking to address their big data needs have turned to Oracle, the industry leader.

Oracle offers a range of big data technology components and solutions to provide controlled empowerment to an enterprise's business analysts, data scientists, and decision-makers.

Oracle Solution

- **Oracle Big Data Preparation Cloud Service**
- **Oracle GoldenGate Cloud Service**
- **Oracle IoT Cloud Service**
- **Oracle NoSQL Database Cloud Service**
- **Oracle Big Data Cloud Service**
- **Oracle Big Data SQL Cloud Service**
- **Oracle Database Cloud Service**
- **Oracle Big Data Discovery Cloud Service**
- **Oracle Data Visualization Cloud Service**
- **Oracle Business Intelligence Cloud Service**

Additional bundled services:

- **Oracle Big Data Spatial and Graph**
- **Oracle Advanced Analytics**
- **Oracle R Advanced Analytics for Hadoop**
- **Oracle Stream Explorer**

Learn more at oracle.com/goto/big-data-done-right

Join our communities

[1] IDC White Paper, sponsored by Oracle, Six Patterns of Big Data and Analytics Adoption Infographic, March 2016

intel ORACLE