

RISK ADVISORY SERVICES

# DATA MANAGEMENT

**DATA INTEGRITY IS A KEY ISSUE FOR ORGANIZATIONS BIG AND SMALL. YOUR COMPANY'S INFORMATION IS A VALUABLE ASSET WHICH NEEDS TO BE PROTECTED AND MANAGED IN A SUSTAINABLE, COMPREHENSIVE MANNER.**

As organizations manage increasing volumes of data and automate complex processes, data integrity and quality becomes a requirement rather than an option. This reality poses an interesting challenge for businesses; it requires management to assess the reliability of their data, particularly when dealing with intricate business processes and applications.

Research indicates enterprise resource planning (ERP) applications [e.g. SAP, PeopleSoft, Oracle, JD Edwards implementations, Data Warehouse implementations and Customer Relationship Management (CRM) implementations] are costly and provide poor returns if populated with incorrect data.

Historically, data management and data quality have been internal issues. However, the world has changed and there is more data interchange between business partners thus the importance of data management and data quality has increased.

The three main challenges organizations face are:

**Challenge #1:** The need to gather data from disparate legacy systems in global locations.

**Challenge #2:** Having to perform a comparative analysis of incoming data with the objective of producing one source of information for the organization.

**Challenge #3:** Developing a sustainable process that can be used and repeated on different data sources.

BDO's data management services are designed to evaluate and improve data quality prior to, during and following systems implementations. Our techniques improve the efficiency of system conversions and interface processes, in addition to identifying anomalies in application data. Furthermore, we facilitate the correction of data inaccuracies and provide tools and strategies for ongoing data monitoring management and cleansing. We can also assist in deriving useful management information from various data sources.



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### TACTICAL DATA ISSUES

- Incomplete data
- Stored in multiple, fragmented systems
- Data not validated or verified upon entry
- Redundant and/or duplicated data

### STRATEGIC DATA ISSUES

- Data not leveraged to achieve strategic benefits
- Data is managed independently instead of using a portfolio approach
- Not rationalized to achieve economies of scale
- Captured independently and not linked to maximize existing relationships with trading partners

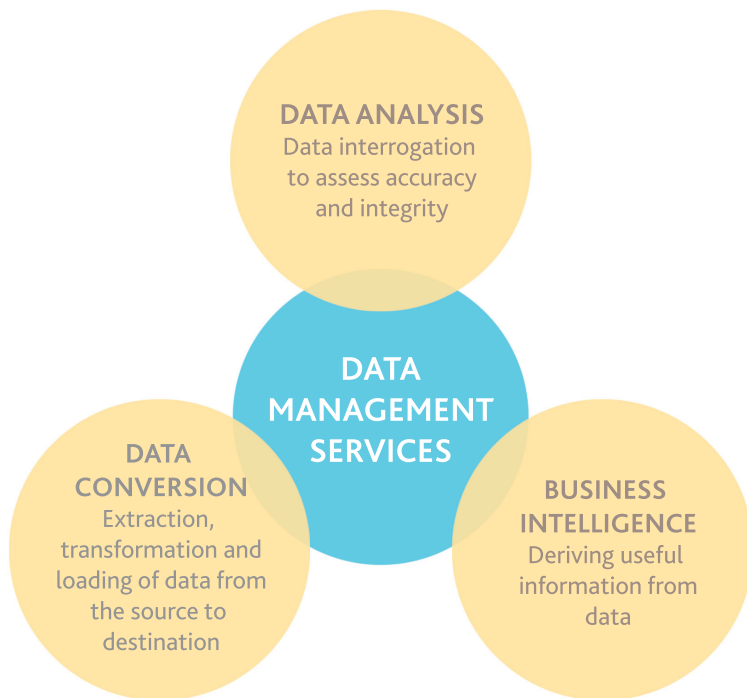
### Data Analysis and Cleansing

BDO's data analysis services assess the accuracy and integrity of system data quickly and cost effectively, using sophisticated data interrogation and analysis, statistical sampling and regression techniques. Our specialists use data mining and statistical tools to evaluate, control and improve the quality and accuracy of the data your systems produce. Implementing a process such as this will:

- Ensure data conversion processes or interface management procedures precisely reflect the accuracy and completeness of the data
- Confirm the quality of the data from systems, as well as detect and resolve data integrity issues and
- Establish a data quality monitoring process over your existing systems

### Data Conversion Assurance

We can assist your team in mapping out "best practice" conversion processes or, perform a full conversion review using our data analysis tools and methodologies. In addition to the systematic conversion process, our review procedures provide independent assurance for audit and business purposes; you can trust that the converted data is complete and accurate. To support your organization in the data



conversion assurance process, our specialists would complete the following tasks:

- Assess current data and structures
- Develop a data conversion strategy
- Identify and correct integrity and quality issues
- Develop, review and run conversion programs and
- Test the live conversion, thereby ensuring a reliable and accurate conversion process

### Business Intelligence Services

Our business intelligence services assist clients in transforming their data into useful, actionable information, thereby managing key business risks, enabling informed business decisions and measuring performance. Some of our business intelligence services include:

- **Implementation of continuous monitoring controls:** Involves the evaluation and measurement of the quality of data and information, especially as it relates to system implementations, interfaces, data conversions and migration.
- **Revenue assurance:** Our specialists can conduct an enterprise-wide review to verify the completeness, accuracy, and integrity of the capturing, recording, billing and reporting of all revenue-producing events.
- **Inventory analysis:** We can assist management in improving the efficiency and effectiveness of inventory procedures by assisting in the identification and resolution of issues (e.g. expired inventory, slow-moving inventory, etc.) caused by poor quality of information.
- **Automated controls testing:** As a component of their internal controls testing, management can gain assurance over various automated controls within their applications e.g. interfaces, calculations, edits, etc.

The BDO team has extensive experience in:

- Processing large volumes of data on a timely basis
- Managing data from multiple, disparate systems
- Analyzing data to identify presence/absence of relationships
- Testing calculations for accuracy and completeness
- Validating system edits to ensure integrity of data elements
- Providing meaningful summaries for management monitoring and control; and
- Analyzing data trends and identifying data exceptions