WHITE PAPER

Data Quality: A Critical Component of Business Assurance

ACL™

Data you can trust. Results you can see.

CONTENTS

INTRODUCTION TO DATA QUALITY

Data Quality & Corporate Success

Data quality is a critical component of business assurance, the practice of reducing risk exposure and improving operational efficiency through business controls and compliance policies. Poor quality data exposes organizations to risk, jeopardizes the performance of operational systems, and undermines the value of business intelligence systems on which organizations rely when making key decisions.

The emphasis in information systems throughout the last decade has been on the creation of applications that improve organizational productivity and efficiency and generate customer loyalty, for example, Enterprise Resource Planning (ERP), Customer Relationship Management (CRM), Supple Chain Management (CRM), and Business Intelligence (BI).

Companies spend enormous resources on these technologies to create streamlined business processes from which they can make competitive gains. While these information management systems have the potential to improve efficiency and productivity, the data and transactions upon which these applications rest must be valid for this potential to be realized.

Inaccurate or incomplete data compromises the ability of organizations to make decisions and take action. Corporate managers who formulate business plans and strategies based on analysis derived from data warehouses and other enterprise applications are at risk unless a data quality program can ensure data validity at the most granular transaction level. Decisions based on faulty data can cause direct financial loss, undermine customer loyalty, and damage an organization's credibility.

The ongoing costs of poor data quality can make the costs of initial system engineering pale by comparison. Data quality experts estimate that bad data can cost a business as much as 10 to 20 percent of its total system implementation budgets[1].

Accountability for Data Quality

In the past, chief information officers (CIO) or project managers for information technology initiatives were the primary champions of the data quality cause. Without good data, they argued, no amount of programming excellence would make the system perform to full potential.

They understood that as much as 40 to 50 percent of a project budget might be spent correcting data-based errors. However, they had no line accountability for the actual data gathering processes that led to good or bad data quality. As a result, a shift in accountability has occurred, placing much of the responsibility for day-to-day data quality management on operational executives or business unit managers who understand the data and its purpose and therefore are in a better position to engineer processes that improve its quality.

---

[1] Larry English "Improving Data Warehouse and Business Information Quality". 1999. John Wiley and Sons.

As a result, overall corporate responsibility for data quality has shifted more and more to the chief financial officer (CFO) whose role as champion for corporate compliance and control standards has always relied on the integrity of data in underlying systems.

> *"Data quality is something everyone desires; yet, the concern is only now reaching critical mass. Any progress will save companies money—and open up enormous opportunities."*
>
> *David Stodder, Editorial Director, Intelligent Enterprise*
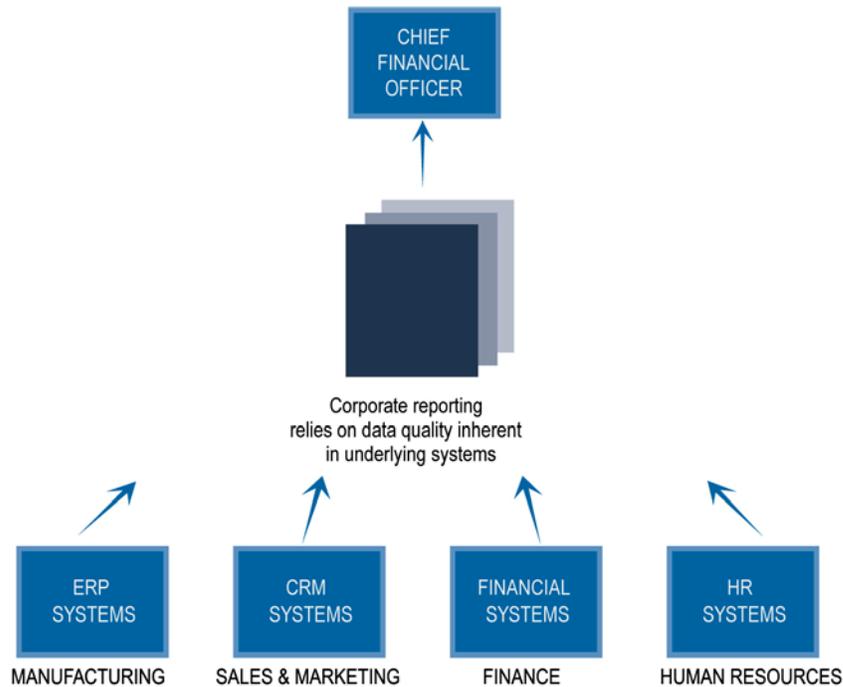
Diagram 1: Business Unit Executives and CFOs Have Increased Responsibility for Corporate Data Quality

TYPICAL ORIGINS OF DATA CORRUPTION

> "Experts estimate that about two percent of accurate records can corrupt each month with no data quality system in place. That's the equivalent of 20,000 corrupt records monthly in a one million record database."
>
> *Len Dubois, "Business Intelligence: The Dirty (and Costly) Little Secret of Bad Data", DM Review.*

The causes of data corruption are numerous and take many forms – ranging from simple data entry errors and poor data element definitions to faulty programming logic. Data can be stored in incompatible formats; it can be incomplete, inconsistent, or just plain incorrect. Data may be stored electronically, but have no linkage information to provide connections between business systems. Whatever the problem, it compounds when different sources of data merge. A few of the more common origins of data corruption are discussed below.

Entry

The most obvious cause for poor data quality is data entry. If a company has no standards by which information enters a system, data will quickly reflect their lack. For example, there are many ways a customer service representative may enter the company name IBM as illustrated in Table 1 below. The table illustrates that not only must data entry standards exist in one system, but also they must be global standards, reflecting consistency across all systems.

System	Company Name (No Standards)	Company Name (With Standards)
CRM System	• IBM Atlanta • I.B.M. Atlanta • International Business Machines, Atlanta Division	• IBM Atlanta
Accounting System	• IBM Atlanta • IBM/Atlanta • I.B.M. Atlanta	• IBM Atlanta

Table 1: Data Entry Standards Prevent Duplicate Records

In the example above, poor data entry standards result in duplicate records that can cause confusion. A data source heavy with redundant information can rapidly lead to many problems, including:

- **Direct Costs.** Direct costs of invoices, catalogue mailings, and other forms of communication can accrue very quickly if many duplicate records persist. The inability to accurately consolidate vendor payments may result in missed volume discount opportunities, the inability to analyze overall purchases from a single vendor, or worse still, may lead to unwitting contract breaches.

- **Decision Support Skewing.** Reports or analyses run against databases with many redundant records will skew decision support in ways that reflect the poor state of the data.

- **Customer Defection Rates**. Customer service suffers when customer information is dispersed across multiple records, providing only a partial view of an account. It can lead to embarrassing knowledge gaps and frustration on the part of customers and customer service representatives.

In addition to simple data entry mistakes, actions that are more deliberate also can corrupt data. Call center operators may take short cuts, entering default or fake values in tracking systems to increase call turnover rates. Online customers frequently submit false information in Web forms to protect their privacy.

In an ideal computing system, the application itself would prevent many data-related errors. For example, an order entry system for a vendor payment form might include a field for account number, linked to a table that validates only legitimate account numbers. But system edit checks go only so far. While necessary

and feasible in many cases, internal controls can be time consuming and costly to implement in others. The return on investment associated with their efficacy must be weighed against the cost of re-engineering an application. In addition, controls can have a negative impact on both system and human performance. They can end up being limiting, expensive or simply impractical. The challenge is to strike the appropriate balance between "over control", where business activities and initiative can be paralyzed, and "under control," where processes and work take place in a virtual vacuum.

Decay

List brokers know that data in simple name and address records decays at the rate of 25 percent per year, or around two percent every month. This represents a significant source of error and risk of loss, especially in organizations with millions of records. Warehousing locations, inventory valuations, parts catalogues and many other kinds of logistical information are subject to ongoing change, requiring constant vigilance to ensure accuracy. While software cannot prevent data decay, it can identify and flag records that have not been updated within date parameters defined by the organization's business units, alerting appropriate personnel to take action as necessary to keep records up to date.

> "Although 81 percent of managers surveyed in 1999 said data quality was the top IT priority for the next year, experts continue to estimate that up to 70 percent of data warehousing projects fail because users reject them as unreliable."
>
> *Len Dubois, "Business Intelligence: The Dirty (and Costly) Little Secret of Bad Data", DM Review.*

Migration

When moving one or more data sets from existing applications to new systems, care must be taken to ensure that the consistency and integrity of the data is maintained within the new data structure. Typically this requires that data be cleansed, updated, and validated against the new data structure prior to loading, to ensure completeness and accuracy.

Mergers

Mergers or acquisitions frequently trigger system migrations, as the parent organization migrates customer, financial, inventory, manufacturing, or any other information from the purchased company to existing business systems. It is at these transition points that data quality issues emerge, placing the desired operational and financial synergies of such system migrations at risk.

Consolidation

Not all data is equal. Therefore, when data from disparate sources merge, problems with overall quality can occur. Difficulties can include incompatible data definitions, which lead to inconsistencies. A new data structure may support some of the data elements from one source, but not from another. Sometimes data is non-existent in one system and available in another. Data from one source may be of high quality, but when merged with a second poor quality source, will degrade overall system data quality. The problems are numerous and require attention if consolidation projects are to succeed.

Examples of data consolidation projects include:

- **Data Warehousing.** To facilitate business intelligence or decision support, data from disparate sources is commonly aggregated in one data base to enable querying, and reporting across systems.

- **New Enterprise-wide System.** The creation of a new system within the organization that brings together data from disparate sources into an entirely new structure.

The data quality problems in consolidation projects are similar to those of migration. Each data source may have different data definitions and standards. This can lead to inconsistency, incompleteness in the new system, and serious misunderstandings on the part of users. To remedy this problem, project managers create global standards and then transform existing data to meet these standards through a series of steps that normalize the data to fit within the new data structure.

To resolve issues with varying data structures and formats, project managers make use of data quality techniques and systems to perform sophisticated changes to the data that produce a common data definition that the new system recognizes. Depending on the severity of differences and, without expertise and good resources, data transformation projects can be extremely time-consuming and costly.
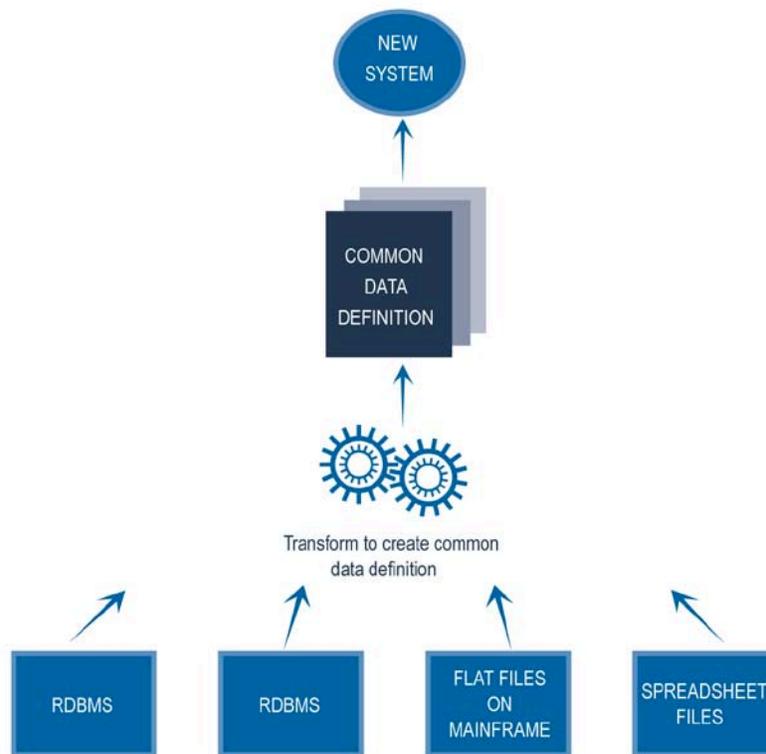

Diagram 2: A Common Data Definition Must Exist for Consolidation Projects to Succeed

Data Integration

Often it is necessary to combine data from one system with the data in another. As organizations create different divisions and units, interpretations of data elements mutate to meet local needs. Enterprise Application Integration (EAI) projects streamline business processes and standardize the meaning and definition of data elements across the workforce. For example, when an order is placed inside an ERP system, information about the order may be replicated and restored in the CRM system so that customer service representatives can view the complete record of customer transactions. This process requires careful data assessment, extraction, transformation, and re-loading procedures to ensure data accuracy, completeness, and validity.

System	Data Field	Standardization
CRM System	Month, Day, Year	ddmmyyyy
Accounting System	dd/mm/yyyy	ddmmyyyy
ERP System	ddmmyyyy	ddmmyyyy

Table 2: Divergent Field Definition Standards Complicate Integration Projects and Must Be Standardized

Replication and Synchronization

Enterprise-class systems running across multiple locations sometimes use a distributed architecture in which each location runs a local version of the system to improve performance and increase transaction processing speed. Distributed systems require master system replication and synchronization. Data integrity can collapse at these critical junctures: during replication and subsequent synchronization points.

In the diagram below, if a customer service representative in one location makes a change to the same customer record that another representative is updating in a different location, a master system of validating and ensuring integrity must exist inside the distributed system. However, to be safe, many companies employ external, third-party data quality applications to detect corruption caused by poor replication and synchronization faults.
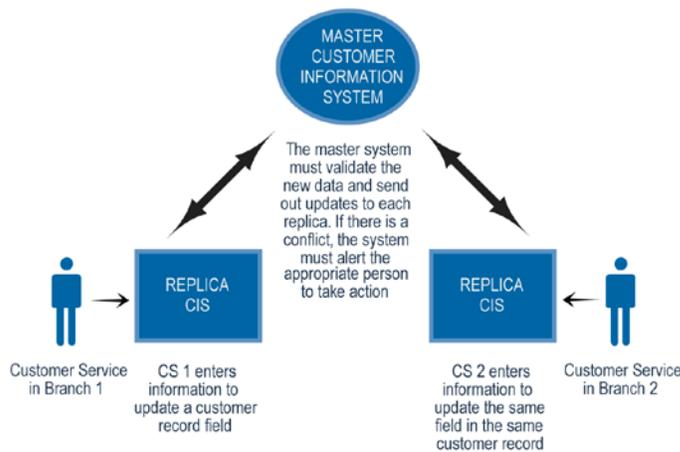

Diagram 3: Synchronization Must Be Carefully Engineered to Avoid Data Corruption

THE IMPACT OF POOR DATA QUALITY ON BUSINESS AREAS

The Data Warehousing Institute issued a report titled *Data Quality and the Bottom Line* (2002) that asserts that data quality problems "cost U.S. businesses more than US $600 billion a year." Much of their estimate is based on the cost of postage, printing, and the staff overhead required to deal with erroneous communications and marketing. But data problems extend beyond sales and marketing to affect all business processes working with poor quality data. No area of business can dismiss the threat of bad data.

> Only 34 percent of respondents to a data quality survey (2004) by PricewaterhouseCoopers reported they were "very confident" in the quality of their data[2].
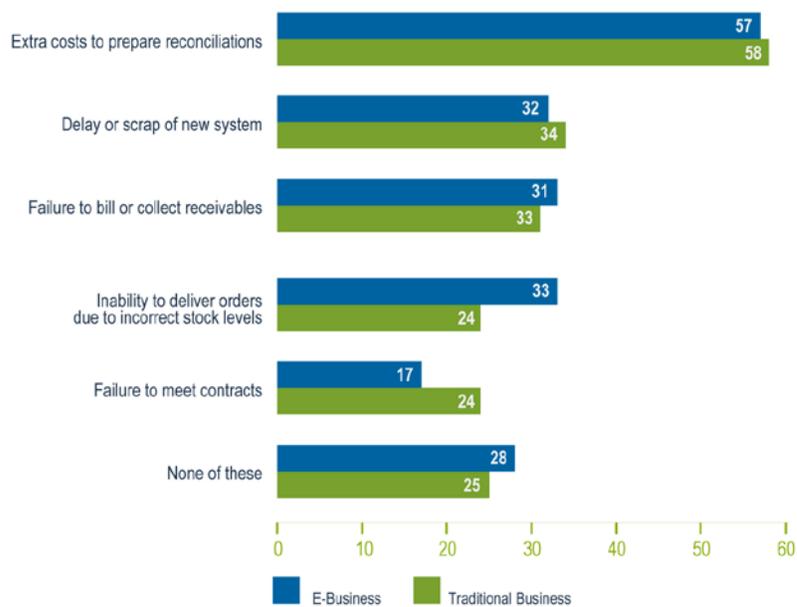

Chart 1: Percent of Problems Experienced as a Result of Data Quality Issues[3]

Accounting & Finance

Poor data quality within a billing system can seriously compromise revenue collection, payables, and reporting. Mergers and acquisitions often change customer-billing contacts without regard for errors introduced when integrating data from multiple sources; in turn, this can have a direct impact on invoicing and payment receipts. Billing disputes can alienate previously loyal customers; but resolving them can cost more than the invoice is worth. On the vendor side of the balance sheet, missed discounts or poor insight into expenditure patterns can lead to increased or unnecessary overhead.

---

[2] PricewaterhouseCoopers *Data Quality Survey 2004*

[3] PricewaterhouseCoopers *Global Data Management Survey 2001*

The need for clean data in fraud detection is paramount. The ability to track an individual despite variations in key identity elements forms a major component of fraud reduction. In banking and insurance industries, identification of name variations and aliases is required by law to meet Office of Foreign Assets Control (OFAC) regulations. Data quality methods make both fraud detection and OFAC compliance much more effective through record matching, relationship identification, and identity recognition using pattern-matching and fuzzy logic.

Data quality also plays a key role in financial management reporting and regulatory disclosures. Because data informs reports, ensuring accurate and complete data becomes paramount when creating financial reports. Laws such as the US Sarbanes-Oxley Act, UK Combined Code, and German KonTraG demand higher standards of corporate governance and greater transparency in financial reporting, leading to greater emphasis on data quality management.

Management decisions based on financial reports derived from poor quality data may negatively influence the success of an operation. Decisions on asset management, cost containment measures, overhead reduction, or capital expenditures all may be compromised if the data on which they are founded are incomplete, inaccurate, or invalid.

Manufacturing & Logistics

The examples most often used in arguments for data quality management initiatives address customer-centric applications such as CRM and service systems. However, Enterprise Resource Planning (ERP) systems can suffer equally from lack of data integrity, depending on the origin and severity of the corruption. If, for example, an order entry taken by a customer service representative updates the manufacturing system with schedule and item information, but the data elements from one system do not fit structurally into the other, data corruption will occur and result in decreased efficiency and productivity on both the shop floor and in the warehouse.

Inventory valuations depend on accurate data. Physical checks often do not match with data in inventory systems due to theft or inaccuracies caused by faulty system logic or simple data entry errors. An independent audit trail and monitoring of data can help to identify sources of error and discrepancy.

Sales, Marketing & Service

Virtually all customer-centric functions – from direct mailings to personalized customer support to consistency in meeting customer privacy requirements – can be made more accurate, more efficient and less costly with support from high quality customer data made universally accessible across the enterprise.

Similarly, in customer service centers and call centers, a good customer experience for both the company and customer is one that takes place smoothly and quickly. More complete and accurate customer data provided by a data quality solution can minimize the cost of call center service, improving call center performance by providing better response times for customer requests, reduced cost of sales, more responsive technical support, increased understanding of buying patterns, and improved ability to cross-sell and up-sell.

DATA QUALITY AS A MANAGEMENT PRACTICE

Data quality improvement projects support effective manufacturing, sales and marketing processes, enable more accurate invoicing and shipping, empower fraud detection, improve the customer experience, and foster many other immediate and long-term business benefits.

Understanding the Problem: Data Quality Assessment

The first step in any process improvement project is to assess the current state. A data quality audit provides an organization with an objective, third-party assessment of current data quality. Frequently the business driver to initiate such a process is a system integration, migration, or consolidation project. A data audit can assess:

- Accuracy – is the data correct?

- Completeness – is all the data necessary available?

- Validity – does the data meet the defined criteria?

- Consistency – are individual data elements expressed in the same way across the entire data set?

The assessment should quantify the extent to which data quality issues will affect the overall project. The outcome of a data audit will guide subsequent quality improvement efforts and provide a benchmark against which the success or failure of improvement projects can be measured.

Cleaning Up: Data Cleansing & Transformation

Having determined the nature of the problems within a data set, line managers or information technology professionals can rectify them using flexible software tools to help them de-duplicate, validate, and create consistency for each data element against rules designed for the purpose inside the data quality software.

These problems can include duplicate records for the same item, person, account or invoice number, or a host of other data elements. Inconsistent presentation of other data, such as date representation as 02/01/08 vs. Jan 1, 2008, can be standardized using identification and transformation rules.

While software can address problems of validity and consistency, it cannot address accuracy or completeness issues without an independent data source against which to check actual data values.

Determining Root Causes: Solutions for the Long Run

While data cleansing and transformation ameliorate problems with existing data, the repeated application of the same correction to the same data problem is not a viable long-run solution. The answer lies not in treating the symptom, but in identifying and addressing the root cause. Improved data quality is usually the result of a business improvement process designed to identify and eliminate the origins of bad data.

Many organizations create data quality teams, with ownership for data quality falling to line managers who understand the data, its uses, and the transactions and processes that the data feeds. These teams produce data standards, defining key data metrics for use enterprise-wide. By investing time and resources to create an effective data strategy, companies can secure maximum value from their data assets and reduce the exposure to risk associated with poor data quality.

Maintaining Vigilance: Continuous Monitoring

Once a cleansing project has refined data for an initial load, continuous data monitoring can identify the introduction of new errors or those created by programming logic or other problems intrinsic to the system.

Continuous monitoring can provide the basis for action to manage business processes for accuracy and to improve data quality practices. To avoid the problems introduced using internal validation processes, many organizations adopt third-party solutions. These solutions act independently of a system to monitor data quality, filtering on defined parameters to match control tolerances that effectively balance operational efficiencies against financial risk.

Third-party continuous monitoring systems can cost much less than re-engineering enterprise-class systems to implement internal controls and cause little or no production system downtime. In addition, they provide a greater measure of assurance that transactions or business rules internal to the system cannot influence ongoing analysis. In fact, they easily identify areas where internal controls are routinely circumvented.

The nearer to real-time a monitoring system can check information, the more rapidly appropriate action may be taken. Professionals familiar with data quality problems are then well-equipped to formulate timely remedial actions based on the gravity of findings. Continuous monitoring using third-party expertise is a critical component of any refined data quality management practice.

TRADITIONAL APPROACHES TO DATA QUALITY IMPROVEMENT

Manual Processes

Sort order techniques and manual exception spotting can aid in the detection of common data errors – especially when there are few records to check. If, for example, a sales person sorts two hundred MS Outlook contacts by alphabetical order, prints them out and checks for duplicates, it will not take too long to rectify accuracy, consistency, completeness, or validity by hand.

Manual methods work well when there are few records to check, and when there is a known accurate value. In the scenario above, the sales representative has little trouble reducing contacts to only those that are correct because he or she can determine known accurate values. Time and resources make manual checking problematic for data sets with thousands or millions of records or with no known accurate values.

Digital Methods

Several kinds of digital solutions fit into one of five categories:

1. **Native Solutions: Software that can access and manipulate data native to a particular form of system.**

   Native solutions can be extremely expensive with high total cost of ownership, and are generally engineered to work with a specific data warehousing application. While they work well within the context of the one data warehouse, these tools are not capable of providing access to data from other systems without costly integration efforts.

2. **Task-Limited Solutions:** Software that can work with data from a variety of systems, but can perform only a handful of specific tasks – for example, de-duping for label runs in larger mailings or CRM de-duping and consolidation.

    These solutions need not be expensive, but they typically are designed to perform only one thing well (i.e. checking and correcting addresses). Managers working on data quality projects would require an arsenal of such tools, all with potentially varying system and platform requirements, to identify and resolve the many different kinds of data quality problems that can occur in today's heterogeneous enterprise computing environments.

3. **SQL-Based or Other Generic Solutions:** Generic solutions not specific to data format or function, such as SQL tools.

    Custom programming, as part of a data quality engagement with a consulting firm or an in-house effort, may well resolve problems initially, but as a long-term strategy may cost more and be less flexible. Company professionals unfamiliar with the technologies used to make changes or update the system will need time to understand it and work with it, adding to ongoing system maintenance costs.

4. **In-House Customized Solutions:** Custom software written for a specific purpose which may span multiple data formats and multiple manipulative tasks.

    Organizations may choose to build their own custom data quality applications using in-house or third-party resources. Created for specific front- and back-end systems, these solutions may prove inflexible over the long-term. Introduction of new technology systems or upgrades, changing legislative requirements for compliance, and revisions to core business processes all can tax the capabilities of in-house proprietary systems. They become more difficult to support as new technology and platforms supercede those considered in the original development efforts. Staff attrition can also compromise such solutions – without the expertise of the people who created the original system, it can prove difficult, if not impossible, to extend the technology to newer applications. To retain currency, a structured and formal revision structure is essential, increasing costs of ongoing system maintenance.

5. **Direct, Flexible Solutions:** Versatile, data-agnostic solutions that can perform any number of tasks to manipulate data from any number of formats.

    The ideal solution to data quality issues within many organizations comprises powerful data analysis technology, capable of identifying and resolving almost any data quality problem, without prohibitive initial investments or sky-high ongoing maintenance costs.

    Such advanced data quality solutions can access, assess, and transform data drawn from virtually any digital source. These solutions differ from generic access and analysis tools because they are built from the ground up to address the specific needs of data quality enquiry based on information extracted directly from multiple source files or databases. Optimized for rapid processing of massive data sets, these solutions use special algorithmic techniques that recognize disparate data definitions, parse, match, consolidate, and normalize – among many other data quality-specific functions.

ACL SOLUTIONS ADDRESS DATA QUALITY

ACL combines data quality assurance consulting expertise with robust analytics technology. Proven ACL solutions empower corporate decision-makers to assure data quality, reduce risk, minimize loss, and improve productivity and efficiency. ACL consultants can quickly assess those business or operational processes that represent areas of greatest risk, quantify the exposure, and implement solutions tailored to unique organizational challenges. With a return on investment measured in months, as opposed to years – as is frequently the case with other large-scale enterprise solutions or custom in-house programming alternatives – ACL solutions deliver fast payback.

ACL solutions fit the "Direct, Flexible Solutions" model of data quality improvement – approaching data quality as a critical component of business assurance. ACL technology can be used to continuously monitor and independently check a broad range of data quality indicators, then produce the requisite exception reporting for follow-up and remediation. In addition, powerful ACL analytics enable personnel charged with data quality responsibilities to interrogate data interactively for effective, efficient discovery.

Professional Services

Working since 1987 with many of the world's top businesses and government agencies, including 95 of Fortune 100 companies and 70 percent of the Global 500, ACL has developed data quality best practices that span many industries.

ACL professionals have deep knowledge of transactional integrity issues, and the expertise to perform comprehensive data quality assessments and formulate subsequent remediation solutions. ACL consultants can rapidly diagnose data quality problems and implement cost-effective solutions through continuous monitoring programs.

Methodology

Led by practice leaders with expertise in a broad range of IT system integration issues, ACL professionals identify areas of concern including known, suspected or unidentified deficiencies in data quality, transaction controls, and business processes. Through innovative forensic data analysis techniques, they examine data, identify control exceptions, and note weaknesses in business procedures – identifying the sources of potential profit erosion, revenue leakage, and financial loss at the most granular transaction level.

The assessment reveals the severity of issues, barriers to success, and the potential impact of data problems on the organization. Based on this analysis, ACL consultants can implement complete solutions to meet specific business needs.

Technology

ACL technology forms an integral part of every ACL data quality engagement. With its powerful and flexible analytics, this technology can be implemented quickly, and at a fraction of the cost of data quality projects that rely on custom or proprietary data quality software.

ACL solutions rapidly handle huge volumes of data drawn from disparate operating system platforms, database structures, and applications (e.g. ERP, CRM, BI systems). ACL identifies the structures of data

drawn from multiple sources and automatically creates its own internal definition for each element, relating information using the data definition itself, not through a meta-data or once-removed database methods.

ACL AuditExchange

ACL AuditExchange, a managed analytics platform, is a departmental solution that scales to the needs and size of the audit department and addresses analysis requirements from ad hoc to repetitive to continuous. With AuditExchange, every member of the audit team can access all the data sources they need, included access to very specialized formats. This helps them improve their audit coverage of areas previously difficult to audit so they can uncover more valuable findings and deliver independent and objective assurance about the activities of the business.

ACL AuditExchange also enables the creation of an audit repository. The audit repository is a centralized and secure location for storing, sharing and documenting audit information. Audit teams can access data, audit tests, results and findings without duplication of effort and thereby improve their productivity and teamwork across the department.

Benefits of Using ACL

Versatile & Powerful

While many companies have engineered software tools to solve specific data quality problems, ACL technology provides a comprehensive, analytic framework that enables organizations to automate many of the labor-intensive tasks associated with data quality assurance, including:

- Assessment & Analysis
- Cleansing
- Transformation
- Validation
- Continuous Monitoring
- Ad Hoc, Repetitive and Continuous Analysis

ACL solutions may be used in a variety of data quality initiatives – ranging from data migration, data integration, data standardization, and consolidation, through to the ongoing maintenance of data integrity across an enterprise. Through these data quality improvement projects, ACL consultants expertly leverage the technology to extract, assess, and transform data – typically within weeks instead of the lengthy timelines demanded by solutions requiring meta-data construction.

Comprehensive & Complete

Regardless of data location, ACL technology can access and test 100 percent of required data, including all transactions available across any digital source. Subsequent detailed analysis provides an organization with a comprehensive picture of where business processes and transactions are most at risk for non-compliance, revenue loss, and reduced productivity and efficiency.

Complete data coverage means that not only are ACL consultants able to examine every data element for potential corruption, but also that all transactional information can be captured and subsequently transformed to meet the standards for new data structures necessary to data warehousing and migration projects.

Impartial & Autonomous

For risk-reduction purposes, it pays an organization to implement an autonomous data quality solution which cannot be impacted by poor data structure, business rules, programming logic, corporate structure, or internal politics.

ACL consultants extract a copy of production data without impacting either host system performance or the data. They can then impartially assess data for validity independent of the production system and can make recommendations based on an expert, impartial assessment.

Rapid & High Value

ACL data quality professionals work closely with clients, and minimize the impact on internal staff and systems while leveraging the knowledge and power of both. Return on investment for data quality projects can be extremely rapid, with fast identification and correction of revenue leakage, vendor overpayments, and duplicate records.

While data quality assurance projects may involve millions of data elements in multiple data structures, ACL technology has been specifically designed to handle complex data and high volumes of transactions, rapidly and efficiently. When implemented in a continuous monitoring framework, ACL applications automate highly complex testing and validation routines and provide early warning of control weaknesses, routing exceptions to appropriate personnel for investigation and action. Organizational resources can focus on trouble-shooting and tightening internal controls to enhance data quality – while significantly reducing the overall cost of ownership over the long run.

ACL Solutions in Action

Case Study: UN World Food Programme Uses ACL to Assist With Implementation of Enterprise Financial System

Business Challenge

The United Nations World Food Programme (WFP) is the largest humanitarian organization in the world. When the organization replaced its legacy ERP system with SAP, the Office of Internal Audit needed a secure, independent way to access data from SAP and multiple platforms.

After WFP implemented the SAP ERP, the Office of Internal Audit had limited access to SAP transactional data. When audit staff tested data migration from legacy systems to SAP, the team realized that a simple spreadsheet could not handle the volume and variety of data involved.

The Office of Internal Audit needed a new way to standardize data analysis among multiple audit teams, analyze full data populations, implement continuous auditing, and generate reports from the SAP system without IT intervention. They needed independent access to data from multiple platforms, and to strengthen their undefined user access and control gaps. As well, they needed to improve their random, judgment-based sampling procedures.

Solution

The ACL Direct Link™ for SAP® ERP solution facilitated the Audit Division to develop its own continuous auditing and monitoring (CAM) tool that allows for continuous auditing practice with a suite of over 75 reports that cover more than 60% of WFP business processes.

The reports are generated periodically (monthly or quarterly) and highlight transactions that do not conform to established rules and controls. The reports have also enabled the team to update risk assessment practices, including a new protocol that shares these assessments with management and extends ownership of the continuous monitoring process beyond the internal audit unit.

In the past, producing audit reports was a time consuming and costly process, which strained limited IT resources. Now, the internal audit division has become a driver of change on fundamental corporate issues. By sharing critical data and comprehensive reports with management, the team can take pride in using industry best practices to support wide-scale organizational goals.

Results

ACL technology has allowed WFP's internal audit team to achieve:
- Continuous auditing with value-added reporting
- Seamless, secure access to data from SAP and multiple platforms
- Standardized data analysis with a more focused auditing routine

With the new solution, WFP's internal audit team has cut audit times and visibly boosted internal efficiency. For example, the WFP's biennial financial statements audit used to fully occupy six auditors for two months. With the new innovation, this process requires just two auditors for one month.

CONCLUSION

To remain competitive in today's complex business environment, organizations must ensure their corporate data assets are accurate, complete, timely, and valid. Data quality is integral to business assurance; poor data quality increases organizations' exposure to risk and financial loss, given the increasing reliance on enterprise-wide information systems and technology.

By proactively identifying potential weaknesses in data quality controls through a framework of ACL continuous, independent monitoring, organizations can take action to stem and remedy data quality issues. In turn, management gains increased confidence in the corporate data underlying financial reporting and all other critical business processes.

ACL enables organizations to efficiently and cost-effectively manage data quality for greater business assurance, sustainable compliance, risk reduction, fraud detection, enhanced profitability, and improved business performance.

To find out how ACL can help your organization improve data quality, contact us at **+1-604-669-4225** or **info@acl.com** to arrange for a free consultation.

COMPANY OVERVIEW

ACL Services Ltd. is the leading global provider of Audit Analytics to financial executives, compliance professionals, and auditors. Combining market-leading data analysis software and professional services expertise, ACL solutions give organizations confidence in the accuracy and integrity of the transactions and the effectiveness of the internal controls underlying increasingly complex business operations.

Since 1987, ACL's proven technology has enabled financial decision-makers to assure controls compliance, reduce risk, detect fraud, minimize losses, enhance profitability, and achieve fast payback. ACL delivers its solutions in more than 130 countries through a global network of ACL offices and channel partners. Our customers include 70 percent of the Fortune 500 companies and over two-thirds of the Global 500, as well as hundreds of national, state, and local governments, and the Big Four public accounting firms.

ACL Headquarters

T +1 604 669 4225
F +1 604 669 3557

■ acl.com
info@acl.com