

# Managing Your Data Assets

WHITEPAPER



## Managing Your Data Assets

2

### ABSTRACT

YOUR COMPANY BALANCE SHEET LISTS CURRENT AND LONG-TERM ASSETS, INCLUDING INVENTORY, ACCOUNTS RECEIVABLE, CASH, PROPERTY AND EQUIPMENT.

BUT YOUR MOST IMPORTANT ASSETS—THE FACTORS THAT DEFINE WHO YOU ARE AND PROVIDE FOR YOUR GREATEST COMPETITIVE ADVANTAGE—ARE SOMETIMES LESS OBVIOUS. YOUR PEOPLE, YOUR CUSTOMER RELATIONSHIPS AND YOUR CORPORATE DATA, FOR EXAMPLE, PROVIDE FAR GREATER VALUE AND COMPETITIVE ADVANTAGE THAN TRADITIONAL ASSETS SUCH AS A STOCK PORTFOLIO OR DESKTOP PRINTER.

FOR YEARS, COMPANIES HAVE RECOGNIZED THE LINKAGE BETWEEN EMPLOYEES AND BUSINESS COMPETITIVE ADVANTAGE AND INVESTED IN THEIR PEOPLE THROUGH TRAINING, EDUCATION AND DEVELOPMENT. MORE RECENTLY, FIRMS RECOGNIZING THE VALUE OF CUSTOMER RELATIONSHIPS HAVE INVESTED IN CUSTOMER RELATIONSHIP MANAGEMENT (CRM) SYSTEMS, AND EVEN CUSTOMER INTIMACY (CI) PROGRAMS. NOW, RECOGNIZING THAT THERE IS EVEN MORE ADVANTAGE TO BE HAD, EXECUTIVES ARE TURNING THEIR EYES TOWARD WHAT COULD BE THEIR MOST VALUABLE ASSET OF ALL: INFORMATION.

## TO BE SUCCESSFULLY AND CONSISTENTLY USED, DATA NEEDS TO BE ACCURATE AS WELL AS UP-TO-DATE.

Like other corporate assets, information, created from all its data components, has measurable value that is integral to achieving strategic objectives and gaining or maintaining a competitive advantage. Likewise, the value of all your data can increase or decrease depending on how effectively you manage this asset over time. Successful managers create environments where data is:

- accurate and up-to-date
- accessible and secure
- usable and well-governed

This Pitney Bowes Business Insight white paper examines these three factors as they affect the value of your data assets, and provides a road map for how to increase the return on your investments. With expertise in data quality and data integration—as well as the practical applications of customer intelligence in marketing, customer care, finance and business operations—Pitney Bowes Business Insight is uniquely positioned to help you gain the insights you need to succeed.

### Unlike Fine Wine, Data Rarely Improves with Age

Managing data has taken on a heightened level of importance for three reasons. First, companies are striving to be even more customer-centric. Many have even gone so far as to create new positions, such as Vice President-Customer Experience. Second, the pace of change continues to accelerate, with a truly global economy creating new markets, new products and new customer innovations becoming an everyday occurrence. Lastly, data management has come to the forefront because today's advanced but readily available technologies provide you with easy, flexible, affordable ways to deal with the increasing challenges.

For your data to be a true asset, however, it has to be used while still fresh. In fact, to be successfully and consistently used, data needs to be accurate as well as up-to-date.

Using old, inaccurate data wastes your time, resources and money; and if it is customer data, it may very well alienate some portion of your customer set. Don't let your hard won assets turn to vinegar while sitting on a shelf!

There are three very important actions you should take to assure the freshness and accuracy of your increasingly important asset.

#### Start with Data Profiling

In the same way you might contract with a home inspector to examine the foundation of a home you are about to purchase, the first step toward managing your data as a true corporate asset is an in-depth data profile.

Some applications provide counts on what percentage of fields are populated, but you can only get a true understanding of your data quality by examining data values as well. Ask questions such as—How many unique keys are not unique? Are there symbols or commands where characters should be? Are the numbers in an appropriate format? Are there fields, such as Social Security Number, that are populated with all 1's or all X's? By comparing the universe of values within a database, you can identify outliers, anomalies and other questionable data points.

#### Take the Four Steps of Data Cleansing

Once you understand the make-up of your designated data, you can begin to improve the quality of the data, and thus increase the utility of your informational assets.

**Format Fields.** The style and format of your customer data is often subject to the personal whim of whoever handles data entry—and even customers are not consistent in this respect. Data normalization helps ensure that consistent terms and formats are used across a given field, so you can identify matches, standardize records and provide a more consistent use experience.

## Managing Your Data Assets

4

**Parse Components.** When you break down strings of data into multiple fields, you can standardize data elements with greater accuracy. Whether your records include names, addresses, contact information, purchasing history or the even more complex data often associated with business records, data parsing makes it possible for you to turn data into the usable components needed to perform automated data quality operations far more effectively.

**Check Content.** Some records contain accurate information that cannot be utilized because it is embedded in the wrong field. Other fields may appear to be populated, but the information is obviously wrong (i.e., all 1's). As part of your data cleansing, you can automatically correct these anomalies so that your data is fit for use.

**Remove Duplicates.** Once your data is standardized, you can identify matches and duplicate records with a high degree of confidence.

### Perform Ongoing Data Maintenance

Even the best data goes stale over time. It is a normal unavoidable occurrence—people move, update email addresses, change preferences and modify their relationship with your company. This is true for the world in general. The population in the United States has surpassed 300 million, and in 2008, 11.9 percent of them changed their physical location. In Canada, with a current population of 33.8 million, more than 11 million persons have changed their address within the past five years. Europe has an overall population of just over 830 million, with an annual average range of mobility within the European Union (EU) of three to seven percent. A recent EU survey on mobility showed that 31 percent of the respondents indicated that they expect to move within the next five years. In 2006, Australia's mobility rate was 13.7 percent on a population base of approximately 21 million. There are many factors affecting mobility rates, such that even in countries like Mexico, Japan and the United Kingdom, millions of people move in any given year.

So, it is readily apparent that, regardless of where your customers reside, it is paramount that you keep up with them. A regular data maintenance program is necessary to ensure that your data is kept up-to-date over time.

**Batch Maintenance.** Running through the data cleansing steps regularly will uncover and correct issues as they arise. While annual data cleansing should be considered the minimum, companies conforming to best practices will run their maintenance programs on a quarterly basis.

**High-Quality Input.** Real-time data quality applications can validate new data as it is being entered, serving as a “data quality firewall” if you will, helping to ensure that bad data never enters your database.

These two processes are distinct and provide different benefits. Managing data quality at the time of data entry, for example, requires speed and reliability on a transactional basis. While batch-oriented applications can be more thorough and complete. The key to your success will be in identifying a data quality platform that can support both engines, so you can leverage a shared set of rules and business logic across all of your data quality efforts.

### Money Under Your Mattress Isn't Necessarily Safe, and Provides Few Returns

Data security is always in the news. When companies fail to safeguard private data, they can compromise profits, competitive advantages and the wellbeing of their customers. While it often doesn't make headlines, the same problems exist for companies who fail to control or provide for sufficient data access internally.

Your data assets only have value when they can be accessed and used appropriately by your employees and underlying business processes. Companies need to find ways to provide for ongoing data quality, data integration and real-time access if they are to maximize returns.

## THE KEY TO PERFORMANCE IS THE DELICATE BALANCE OF INTERNAL AND EXTERNAL SECURITY.

Consider this example: would you choose a bank that:

- Had only one physical location where you could access your money?
- Required that you changed information on your various accounts one at a time?
- Could only provide you with balance information on one account per call?

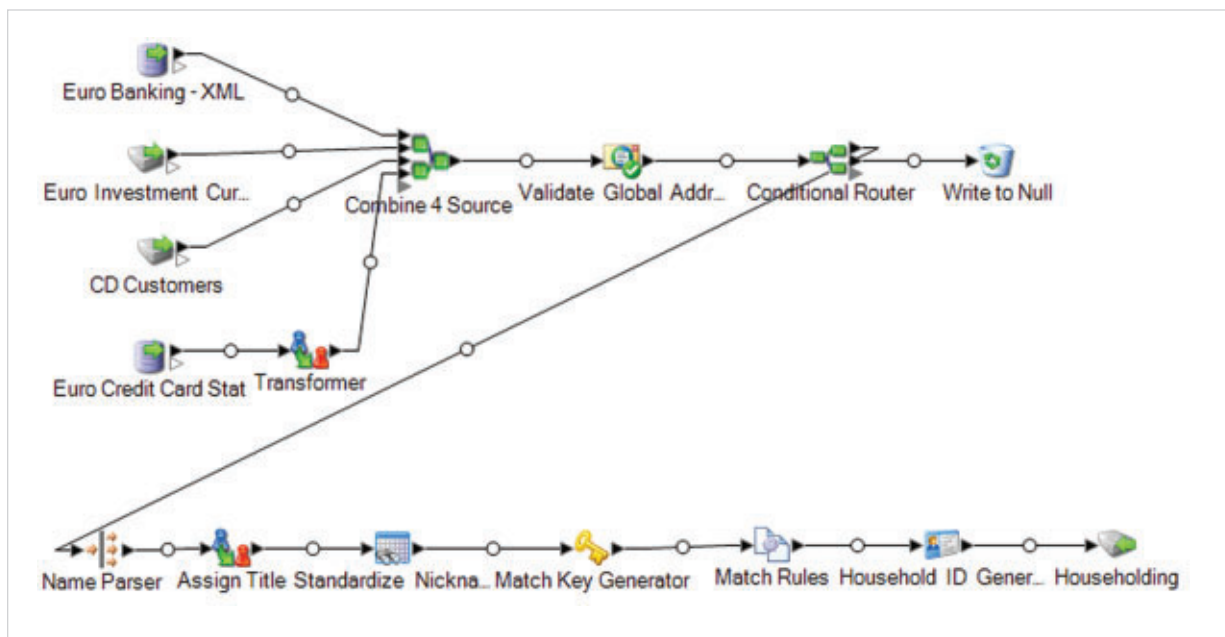
In today's service oriented world, service providers are expected to have a complete understanding of our unique or multiple-faceted relationship. Unfortunately, many companies still keep data in silos—with separate systems for CRM, service and billing—hamstringing their ability to meet today's customer expectations. This is the business equivalent of hiding your money under your mattress!

There are three practical actions any business should take to increase the value and return on their data assets.

### Promote Consistent Business Logic

Consistent business logic is needed across the entire enterprise. You need to reach your data assets and data quality processes from all of your organization's processes in order to meet complex demands. Batch processes need batch integration, while interactive processes need transactional integration. Often, the most difficult issue in such integration is business logic.

To ensure that data quality is maintained across your enterprise, the business logic specific to your organization needs to be repeated in every process. Ideally, business units should be able to understand, manage and audit how this logic is being applied. This logic should be easily consumed in your enterprise Service Oriented Architecture (SOA).



*With today's leading applications, users can easily review, understand and update business logic without extensive IT support.*

## Managing Your Data Assets

6

### Share Information

Equally important to managing your data assets effectively, your systems need to share the underlying customer information. Whether through data federation or extract, transform, load (ETL) processes, you can provide business units with direct access to the data they need. If executed properly, data integration efforts should also provide for centralized management, where you can monitor the status and health of your data quality across the full scope of your system.

Going back to our earlier banking example, with the appropriate business logic and shared information, now a call center representative could access and retrieve a customer's complete record—even if they don't have all the account numbers.

### Secure Your Data Inside and Out

Data assets are valuable only if they are available to perform appropriately. The key to performance is the delicate balance of internal and external security. Protection of critical data assets is paramount, and many companies specialize in tools and solutions that safeguard data from external threats including data theft. However, much to the unwelcome surprise of many, more frequent issues often arise from internal threats. Potential catastrophic situations can arise where internal threats develop from incidences such as unintentional access, intentional sabotage by disgruntled employees, misused or stolen access keys and even the general lack of an acceptable use policy. These are just a few of the internal threats. One key to mitigating such threats is a central point of authorization. Security must be thoroughly instilled inside as well as out.

### Road Rules Increase the Value of the Drive

Most people will agree that having rules of the road increases safety, and generally offers more protection from accidents when followed by everyone. In fact, you would probably never consider driving your family car in an environment where rules didn't exist. It's considered dangerous, and if something did happen you would just be out of luck. The same should go for using your valuable data assets. The true value data brings to your organization is reflected in the many ways it can advance your overall goals and objectives, such as increased profits, more efficient operations, stronger customer relationships and ultimately better competitive positioning. Your total success may depend on how well you set up the rules for its use.

The following includes a few time-tested guidelines.

#### Use Data Appropriately

Organizations need rules, often referred to as data governance, that describe the ways in which their data assets can and should be used. On one hand, you want to comply with the rules, regulations and laws that govern data privacy, inter-departmental data sharing and data integrity. Alternately, you can successfully set your own standards that govern data use, including the frequency of updates and routine maintenance, by following these three key pointers.

**Data Governance.** Written, easy-to-understand governance practices are essential to keeping healthy data. Organizational standards can cover a variety of topics and take many forms. Typically, such efforts improve data quality by assigning a team responsible solely for data accuracy, accessibility and consistency.

# KNOWING YOUR CUSTOMERS INCREASES YOUR ABILITY TO PROVIDE RESPONSIVE SERVICE PLUS THE PRODUCTS AND SERVICES THAT MEET NEEDS.

**Data Monitoring.** Monitor your data as part of your governance process. Everyone knows that road rules are most effective when they are backed by known, routine, official monitoring. For example, a regional office is inputting an unacceptable amount of data with key fields being left blank, or filled with inappropriate or bad data. With ongoing monitoring, the administration or business manager receives an early alert and they can intervene before things get out-of-hand.

**Data Stewards.** New to many organizations, the role of the data steward is becoming increasingly important as companies invest more in data quality initiatives. The data steward ensures that data is used appropriately, and that unsound practices do not undermine your overall data quality. The data steward—who may be an individual from IT or, more likely, a tech-savvy business user—also helps resolve issues and help business users understand how best to use data to support their departmental objectives.

## Use Data Wisely

Everyone wants to manage customer relationships in ways that reduce costs and maximize revenue. Learning how to leverage your data assets requires an understanding of how quality data impacts both your customer-facing and back-office operations.

Take a customer address, for example:

In some locations, mail should be addressed to one location (such as a PO Box) while home-delivered parcels should be addressed differently (such as a street address).

Business equipment may be installed at one location, but lease renewals must go to a separate address, and monthly billing to a third.

Quality data can help reduce your operational costs by ensuring communications reach the intended recipient at the correct location. Going one step further—quality data can help you target messages more effectively. Today, even transaction documents, such as statements and invoices, are used to cross-sell and promote new products and services.

Overall, high quality data helps improve your total customer experience and employee satisfaction. Knowing your customers increases your ability to provide both responsive service and the products and services that meet their needs. While it may take some time before you can truly engage customers on a one-to-one basis, you'll only reach this state by managing your data assets effectively.

## Manage Data Assets for Today—and Tomorrow

Organizations, who understand their data, will gain insight into trends and ever-changing customer relationships, by answering questions such as:

- How are my customers connected to each other?
- Can we tap into social networks?
- Where are customers using our products in new ways?
- Can we predict when a customer is likely to cancel?
- What customer segments offer the greatest potential for growth?

While data doesn't appear on your balance sheet as a line-item entry, customer data is one of your company's most important assets. Taking steps to manage these assets now can generate returns for years to come—and Pitney Bowes Business Insight can help in many ways.

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