

The 7 Cs of Data Quality

Your Data Quality Scorecard

Data Quality

About Melissa Data

Since 1985, Melissa Data has been a leading provider of data quality and address management solutions. Melissa Data's data quality software, Cloud services and data integration components verify, standardize, consolidate, enhance, and update U.S., Canadian, and global contact data for improved communications and ROI. More than 5,000 companies rely on Melissa Data to gain and maintain a single, accurate and trusted view of critical information assets.

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Introduction

How Do You Score on the 7 Cs of Data Quality?

It seems like everyone today is talking about data quality. Why? Because clean data boosts the bottom line. Organizations with healthy contact data save money on shipping and direct mail costs; they formulate effective business strategies and marketing campaigns based on accurate data; and their customers experience high levels of satisfaction. But how many businesses understand how to evaluate and correct issues related to data quality?

In today's data-driven marketplace, data quality issues can no longer be downplayed or farmed out to the IT department. The health of a company's data impacts departments as varied as marketing, sales, accounting, and compliance.

Our aim is to help business managers and executives, marketing professionals, and other non-technical personnel understand what data quality is, why it is important, and how they can quickly clean up their company's contact data.

That's why the 7 Cs of Data Quality are essential. We'll look at each one of the 7 Cs in detail, so you can absorb and apply the fundamental principles of data quality. The 7 Cs are:

- 1. Certified Accuracy**
- 2. Confidence**
- 3. Cost-Savings**
- 4. Campaign Intelligence**
- 5. Consolidated**
- 6. Completed**
- 7. Compliant**

The 7 Cs are the building blocks of data quality and they provide a quick reference "scorecard" to help businesses--whether they are large or small--assess the health of their organization's contact data. No matter whether your business is located in Europe, Asia, or North America, data quality is a must in the 21st Century.



1 Certified Accuracy

How Accurate is Your Data?

Do you know what percentage of your addresses are deliverable? In direct mailing costs alone, the average U.S. company spends \$180,000 a year on mail that never reaches its intended recipients. Consider the fact that 43 million Americans (one in six) move each year and 40% of this group does not file a change-of-address notice. Compounding this “data churn” is the reality that carrier routes change every day and each month the U.S. Postal Service® (USPS®) data file adds more than 100,000 changes.

How can you be confident that the information in your database is accurate and up-to-date? Businesses can employ a CASS Certified™ address verification solution that will validate, correct, and standardize contact address data. The USPS offers vendors CASS™ certification, which is a designation that ensures the accuracy of address cleaning and matching software.

What does CASS™ stand for?
 It stands for Coding Accuracy Support System. USPS lists CASS Certified™ software vendors like Melissa Data on its website.

Locate Customers Who Have Moved

Another important tool to ensure the accuracy of data is the USPS NCOALink®, database containing the names of businesses, families, and individuals who have moved (and filed a COA) within the last 48 months. Private companies provide access to NCOALink under the auspices of USPS® licensing. Businesses simply upload their data via an FTP server on a provider’s website. By checking a mailing list against the NCOALink file, companies fulfill USPS Move-Update requirements for First-Class™ and Standard Mail® automation and presort discounts.

Save money by preventing undeliverable-as-addressed mail. Data from the USPS indicates that nearly 20% of residences and businesses change addresses each year. You can save thousands of dollars annually by submitting your lists for NCOALink processing, or other approved Move-Update methods from the Postal Service™.



2 Confidence

It's Time to Become E-Confident

Identify theft costs business and financial institutions nearly 48 billion dollars a year, with an average loss of \$5,000 per incident. Do you have confidence that a customer is who they say they are?

E-Commerce is a critical part of doing business today, but many companies find that each year E-fraud negatively impacts their E-commerce bottom line. And in today’s competitive global marketplace, you can’t afford to lose confidence in your online business activities.

Verifying E-commerce data at the point-of-entry eliminates the inevitable consequences of bad contact data: undeliverable/delayed shipments along with wasted postage and labor. Even if online shoppers are not committing E-fraud, they can cost your company money by unknowingly entering incorrect data into a Web contact form. FedEx and UPS charge \$12 for address correction, and this can translate into thousands of dollars wasted each year.



I.D. Verification
 Identity authentication is a type of data quality that instantly checks an individual’s self-entered information. It utilizes powerful matching and retrieval technologies to compare incoming records against reference datasets—including USPS data, TELCO data, title information, and other public and proprietary data—to determine the accuracy and completeness. The process essentially takes an historic snapshot of each data component on the record and identifies the most up-to-date elements.

3 Cost Savings

How Much is Bad Data Costing You?

U.S. businesses lose \$600 billion a year because of bad data, with more than 25% of that total due to customer data-entry errors. Save your company money by stopping bad data before it enters your database in the first place.

How much money would you save each year if your company was able to prevent returned shipments, correct undeliverable addresses, merge/purge records, suppress bad addresses, track down customers who have moved, and guarantee marketing pieces reach their intended recipients? To answer such a question, you have to first take a hard look at what bad data is costing your organization right now.

Keep Bad Data Out

Consider the “1-10-100 Rule” which posits that it takes \$1 to verify the accuracy of a record at point-of-entry, \$10 to clean it in batch form, and \$100 per record if nothing is done (which includes the ultimate costs associated with undeliverable shipments, low customer retention, and inefficient CRM initiatives). Therefore, the best ROI can be attained by employing a “data quality firewall” at point-of-entry to immediately verify the accuracy of information.

If a potential customer, or your data-entry personnel, submits invalid contact information, a real-time data verification solution is applied to prevent bad data from entering your database. In this way, data coming in through an online shopping cart, Web form, or call center is verified and corrected before it even enters your company’s CRM system. Correcting bad data before it enters the system means that you save money on returned shipments and wasted postage, all the while using employee time more efficiently and improving customer satisfaction.



4 Campaign Intelligence

Successful Marketing Means Knowing Your Customer

Looking to get a more accurate picture of your customers? Then it is time to employ a geocoding solution and assign precise latitude and longitude coordinates to the addresses in your database. Doing so allows you to map where your customers live and work (helping you define and analyze the needs and preferences of your target population); focus direct mail campaigns in specific areas; and enrich your data by linking to associated demographic information such as census data, including income, housing, ethnic background, mortgages, and much more.

Geocoding technology helps businesses answer fundamental questions like: What is the geographic area we serve? Are our sales territories and client clusters properly aligned? What are some missed or overlooked areas where potential clients might exist? By geocoding client data, it becomes easier to recognize patterns and create new opportunities for businesses. Utilizing a geocoding solution can help businesses strengthen customer relationships, improve profitability, and increase effectiveness.

Targeting Customers with the Right Message

The advent of social networking has allowed companies to connect location data to demographic and consumer lifestyle information. This development allows businesses to target users with ads that are nearby and relevant to their consumer preferences. When you know the precise location of a customer/prospect, and you can tie that information with data about their retail shopping habits, for example, you have a powerful opportunity for targeted marketing.



5 Consolidated

Unify Your Data

On average, 8-10% of the records in a typical database are duplicates. Unmatched records scattered across a company's various databases prevent you from gaining a single, accurate view of customers, which ultimately impacts business decisions.

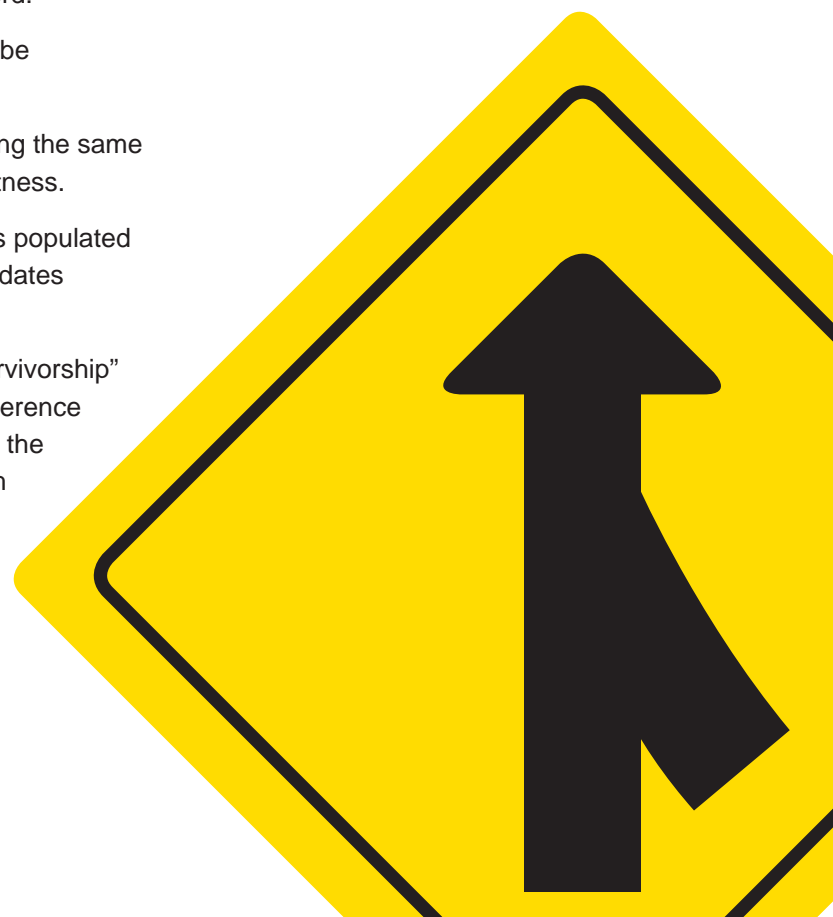
One of the fundamentals of data quality is to search across the spectrum of a company's data and merge duplicate information into one "golden record" to gain valuable insight into user behavior and boost overall sales and marketing performance.

Creating the Golden Record

The process of producing a golden record (also known as survivorship) is the ultimate goal of record consolidation. It is the final step in the record matching process and it involves choosing the record with the best overall data quality. There are three common techniques in determining the surviving record:

- **Most Recent** - The most recent record can be considered eligible as the survivor.
- **Most Frequent** - Matching records containing the same information are also an indication for correctness.
- **Most Complete** - Records with more values populated for each available field are also viable candidates for survivorship.

Many companies today are going beyond "generic survivorship" techniques (as described above), and leveraging reference data to gain a more sophisticated understanding of the actual contents of the data, and choose the record with the best overall quality—the golden record. The process also involves the verification of contact data, including addresses, phone numbers, and email addresses to ensure the information is valid and that no fees are incurred for correcting mailing and shipping addresses.



6 Completed

Appending Your Data

Have you ever worked in a company that's deployed a new CRM application with the idea that it will generate more leads, more sales, and better customer satisfaction, only to find the data is just not good enough? For example, if the user does not have an email address, then the record cannot be completed.

Fewer email addresses means smaller email campaigns with less lead generation and revenue potential. Many data quality service providers can help alleviate this problem by filling in the gaps of your CRM database (appending additional information) with missing phone numbers, postal addresses, and email addresses, ensuring your data is robust.

The Power of Data Quality Uplift

Data Quality Uplift is a process that goes beyond discreet component data validation and updates a record to its most complete form. It is a cutting-edge process that cross-references the validity of the data by verifying that the customer record is deliverable, and that names correspond to address, email, and telephone data. It also ensures that the record is complete with all contact points appended.

Data Quality Uplift enhances marketing campaigns and business intelligence initiatives by completing customer records with missing data like phone numbers, addresses, email addresses, and company names.



7 **C**ompliant

Satisfy Internal & External Regulations

Is the state of your data interfering with your ability to correctly observe external guidelines? Poor data leads to poor decisions which can undermine your customer relationships and credibility. In addition, with the increase in regulatory oversight, maintaining quality data that complies with internal and external regulations is essential.

Here are just a few examples of regulations that require some form of data quality compliance: HIPAA 5010; the US Patriot Act; the Gramm-Leach-Bliley Act; and the Fair and Accurate Credit Transactions (FACT) Act.

The HIPAA Example

HIPAA provides an excellent real-world example of the relationship between data quality and compliance. In response to HIPAA, health care providers must comply with specific government regulations regarding submission claims and billing procedures.

One provision of HIPAA 5010 deals specifically with address contact data. To be in compliance, providers must include a full 9-digit ZIP Code™ for billing provider and service facility locations on all claim submissions. Another HIPAA rule prohibits the use of a PO Box™ for the billing provider address. If a health care providers' data is in chaos and they cannot comply, they will have to pay the price.

And while the specifics of compliance are different depending on the industry and the regulation in question, the bottom line is that compliance issues intersect with contact data, forcing businesses to look long and hard at the state of their data.



Take the Next Step...

So now that we've run through the 7 Cs of Data Quality, how would you rate your business? Are you a master data steward or is there room for improvement?

Regardless of whether data quality is already a top priority at your company or you are just beginning to discover its key concepts, we're certain you can utilize the 7 Cs of Data Quality and quickly make a significant contribution to your organization's bottom line. Remember: the data quality investment you make now will pay dividends down the road in terms of saved time and money.

Now that you've had your introduction to the 7 Cs, it's time to take the next step and upload your data for a complimentary data quality audit from the professionals at Melissa Data. It's simple and quick:

**go to www.melissadata.com/score
for your free assessment.**