

Data entry address validation

A guide for New Zealand businesses

1. Introduction

Typically less than one in three incorrectly addressed items are ever returned to the sender. A simple and common mistake such as a customer not mentioning a unit number, or an operator assuming they know the spelling of a street name, suburb or town can cause wastage and embarrassment for businesses.

This is a guideline for mailers on the options and benefits of address validation solutions used at the data capture stage. Data entry address validation can give you the confidence that address details have been captured correctly, allowing you to use the customer address without the fear of wastage, returned mail or embarrassing delays as customers wait for information.

Data entry address validation solutions ensure customer addresses are verified against the New Zealand Post Postal Address File (PAF) while the customer is still engaged by your employee.

On the other hand, retrospective batch cleansing processes an address list in one sequence with the entire list going through a complete cleansing process. A high proportion of batch addresses can still have inaccuracies after the cleansing process. This is because the batch cleansing product cannot prompt during entry for all information such as street direction or unit number as the cleansing takes place long after the employee was on the phone with the customer.

This paper explores the following:

- Reasons for choosing a data entry address validation solution
- How data entry address validation solutions work
- How data entry address validation solutions can increase productivity
- What to consider when choosing a data entry address validation solution

2. Reasons for choosing a data entry address validation solution

Data entry validation tools verify addresses in real-time against the PAF as they are being entered. This ensures that addresses are validated immediately or clarified with the customer if necessary. It can substantially reduce or eliminate the need for downstream address batch cleansing (see 'Batch cleansing of postal addresses – A guide for New Zealand businesses'). Implemented properly, the data entry process will invariably be more efficient as the number of key strokes required will be reduced.

There are several compelling reasons to consider a data entry address validation solution.

- 1. Auto-correction:** A data entry operator can access any address in the PAF in an average of 15 keystrokes or less. The system literally zeros in on an address, progressively ruling out all but the most likely matches until the exact address is identified usually within seconds. If some parts of the address are not provided or inaccurate, the system can prompt an employee to clarify the information with the customer. This is especially useful in New Zealand given the lack of definitive suburb and town/city information. Put simply, data entry address validation can completely eliminate incorrect address entry.
- 2. De-duplication:** Once an address has been validated and standardised, a substantial improvement in personal, household and corporate matching and duplicate identification is immediately possible. In fact data entry validation will enable enhanced householding or in other words, the ability to recognise people residing in the same residence and employees residing in the same building or company.
- 3. Definitive data source:** Data entry address validation solutions that reference the New Zealand Post PAF guarantee validated addresses as deliverable. Further more, an accurate address matched against the PAF can be lodged within the customer database in the format of your choice e.g. parsed into a few fields or fully parsed such as that used in the PAF.

- 4. Integration:** A single data entry address validation solution can be integrated into most applications and can be available to a broad range of input data capture channels such as online, call centres, Customer Relationship Management (CRM) systems. Many systems are compatible with leading CRM and Enterprise Resource Planning (ERP) systems such as Oracle, Peoplesoft, SAP and Siebel.
- 5. Utilise the DPID:** The DPID is a 7-digit number that uniquely identifies each postal delivery point. The ability to manage customer information greatly improves once it has been matched to PAF and a DPID allocated. For example, the DPID can be used to create a single view of your customer through matching product and transactional data to customer name and address. Over time, this can reduce data management costs and increase the overall value of your customer information. DPID allocation helps to remove duplication in databases and improves the ability to recognise people living or working at the same address. The DPID may also help with matching third party lists (e.g. transactional, product, lifestyle, demographic) to your database for prospecting and direct marketing campaigns.
- 6. Standardise data:** Data entry screens are usually designed such that data is captured and stored in a format compliant with the New Zealand Post address standards (see 'Address and layout guide').
- 7. Ensure accuracy:** Data entry address validation solutions will ensure that data being captured through inbound channels is accurate and valid because they are verified when the data is being entered. Logic built into data entry solutions quickly handle most of the commonly encountered issues associated with low quality addresses. For example, missing or duplicated address elements, common misspellings or abbreviations, and non-address information included in the address fields.

A persuasive case is immediately evident for data entry address validation because correct information is guaranteed every time. Such a tool can give your company a competitive edge to ensure the best, most accurate customer data is used in every customer facing function of the company.

3. How data entry address validation solutions work

Data entry address validation solutions are typically implemented as systems that verify and resolve customer information data based on typedown or autocorrection searching to a single address in the PAF. When a successful match has been made, the full address from the PAF will be populated into the relevant fields of your system. The Delivery Point Identifier (DPID) can optionally be assigned from the matched record.

In order to facilitate efficient validation, the City, Suburb, or Postcode is typically required to be entered first in order to 'filter' only the relevant street information to be available for subsequent searches.

There are three basic ways in which this could work:

- Fully integrated lookup lists
- Semi-integrated local application
- Semi-integrated service

3.1 Fully integrated lookup lists

The PAF is designed in such a way that it can be easily loaded into a set of lookup up tables within your application database. At a minimum, you could enable lookups for:

- Postcode
- City
- Suburb
- Street Name
- Street Number

Ideally, each of the above steps of the lookup should progressively limit the data available for the next step. At a more granular level other fields that could potentially be used for lookups include:

- Street Type
- Street Direction
- Unit Type

But implementing matching at such a 'granular' level should be weighed against the extra number of key strokes or mouse clicks required to navigate to those fields.

3.2 Semi-integrated local tool

Off the shelf solutions are available for an independent tool to reside on the PC desktop. These would be semi-integrated in that:

- The tool is invoked from within the application by the user (e.g. via function key or button)
- User keys in part of the address which the tool auto-completes and matches
- The tool seamlessly passes the fully completed address back to the system

3.3 Semi-integrated service

It is possible to implement a validation service located on the network or offered via the web. The concept is similar to the previous option but the main difference is that the address validation request is passed as a message (e.g. XML) to an external system for validation.

3.4 Dealing with non matched addresses

Which ever type of data entry validation system is selected, there will be occasions where an address cannot be validated due to various reasons. The solution should ideally be implemented in such a way that those un-validated addresses can still be captured but flagged for further investigation.

4. What to consider when choosing a data entry address validation solution

Apart from initial buy or development costs, there are other things to consider when choosing a data entry address validation solution. These include:

Complexity of systems and IT infrastructure

- Can the security limitations and bandwidth of your network cope with using an external validation service?
- Can your system easily be redeveloped to cater to a particular solution?
- Can the one solution be easily replicated across different systems and channels?

Building versus buying a solution

- What is the total cost of ownership?
- Do you have an in-house subject matter expert?
- What is the cost of on-going support and maintenance of the application?
- How long will both options take?

Impact on workflow and people

- How big is your user group?
- Would the change be easily accepted by users?
- For each option, what is the process to continually update the tool with the latest PAF reference data?

5. Increase your productivity

A high priority for any business is to achieve one view of your customer of which accurate addressing is a key part. Data entry address validation solutions can interface with enterprise-wide solutions to ensure that one address in a single consistent format appears in a consolidated customer profile. Address data can therefore avoid duplicate entries and the associated costs related to multiple communications to the same customer or household.

Although address accuracy is a key productivity gain, data entry address validation solutions have a number of additional benefits including:

- Ensures data integrity
- Speeds up entry process
- Reduces cost and prevents wastage
- Facilitates good customer service
- Provides a fast return on investment
- Gives your company a competitive advantage

For more information about quality addressing and how it can assist your business please visit www.nzpost.co.nz/addressing.