

The last mile plays a critical role in supply chain management, especially for e-commerce home deliveries. In addition to making sure your customers receive their merchandise, "last-mile" delivery— the final section of the supply chain when products are delivered to the home— is a crucial part of the value proposition of e-commerce and package delivery companies.

In the past, last-mile delivery to residences was restricted to merchandise that made shipping charges of \$30 or more worthwhile. But as a result of the increase in e-commerce, residential deliveries have exploded. According to the Center for Retail Research online sales passed the \$173 billion mark in 2010 and have only increased further since then. The huge increase in demand for residential delivery has changed the way the delivery industry operates.

It's become extremely important for companies to consider what shipping options they offer for last-mile delivery. Whether you realize it or not, the perception created by how goods are delivered can impact a company's marketing efforts. For example, if a shipment takes several weeks to arrive because of an incorrectly addressed package it can hurt an organization's reputation. Having a high value package dropped in a mailbox instead delivered to

the customer's door creates a poor perception of the retailer. Choosing which options to offer consumers can often be a challenge.

CASS Processing and Address Correction

Coding Accuracy Support System (CASS) software is software that corrects and matches street addresses. True CASS software is certified by a United States Postal Service (USPS) program designed to evaluate the accuracy of the software. CASS certification includes ZIP+4, carrier route, and five-digit coding.

CASS software can correct and standardize addresses in order to prevent undeliverable mail and parcels. It also has the capability to complete missing address information, such as ZIP codes and cities. CASS software is also able to perform a delivery point validation check that verifies whether or not an address is a deliverable address, and check against the USPS Locatable Address Conversion System to update addresses that have been renamed or renumbered.

In addition to an updated address, CASS software can also return descriptive information about





FIGURE 1

An example of what CASS software will correct in an address:

The input of: Produces the output of:



The street and city name misspellings have been corrected; street suffix, ZIP code and ZIP+4 add-on have been added (and the address was determined to be a business).

the address such as whether the address was successfully processed and why, and information on how to make corrections and deliver the mailing. There are a number of other options available when using CASS software. For example, there is a process called Suite^{LINK} that will correct suite numbers for business addresses, and ANK^{LINK} which will convert rural route addresses into standardized addresses. Proper use of CASS can greatly reduce the chance of a parcel being undeliverable.

In many ways, CASS processing is even more important to parcel mailers, where the costs associated with each undeliverable piece are significantly higher than they are for letters. Some estimates of the costs of undeliverable parcels are over \$4 billion a year. When a parcel is returned because of an undeliverable address, the shipper is on the hook for labor to process and handle the parcel, the costs of fixing the order or facilitating a refund, restocking fees, or address correction fees from the parcel company.

And these are just the quantifiable costs of undeliverable parcels. Remember, that delivery of a customers merchandise is one of the last chances a company has to make a positive impression. If a customer doesn't receive their package promptly, or even worse never receives it, they will almost certainly never do business with that company again, In all likelihood, they will be spending time with customer service to correct the issue, and many times will vent their frustration in public, most often on social media.

Although there are a number of options a company can use for address correction and validation, it's important to remember that CASS certified software is going to be the most accurate and efficient method of correcting address issues.

Accessorial Fess and RDI

Access, or accessorial, fees are additional charges that are applied to deliveries for a variety of reasons. Most of the issues that arise are in the last mile phase of the delivery, where factors outside of the retailers control will affect how the shipment reaches the customer.

If a business doesn't have a loading dock, or a shipment requires special equipment, the delivery company will add a surcharge to cover the extra labor or equipment required to facilitate the shipment. Many of these fees are unavoidable—if you're sending an LTL shipment to a building without a loading dock, there's no way around the need for special equipment to make the delivery. Many other issues can often be handled by utilizing the correct information and proper planning.

One of the issues that can be alleviated is residential access fees. As an example, it might be impossible get a 28-foot trailer to an address on a tight residential street. A package delivery or LTL shipper might need to load the delivery onto a smaller vehicle, or make other accommodations. This often results in additional charges for residential delivery, which the retailer may or may not be aware of. An unexpected access fee of several hundred dollars can turn a profitable sale into a significant loss.

The solution to this problem is the Residential Delivery Indicator (RDI), a component of the USPS CASS system. When an address is run through the RDI system, the software returns one value for business addresses and another for residential addresses. Because most shipping companies charge a higher fee for residential deliveries, RDI can be used to identify residential addresses ahead of time.

If you're using RDI as part of a real-time address validation protocol, you can determine whether an address is residential when the order is entered. An appropriate surcharge can be added to the customer's bill to cover the delivery charge, preventing unexpected charge-backs after the delivery has been completed. Or, if an address is flagged as residential, shippers can search for the most cost-efficient delivery option to make the final delivery. Properly employed, RDI will also help to prevent delays in shipments by ensuring that the proper shipment method is employed.

How the Process Works

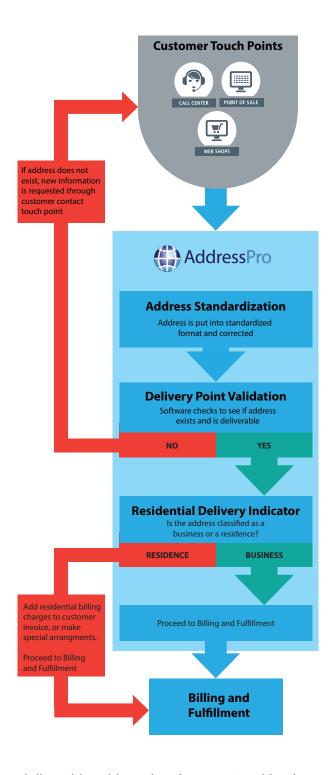
So how would things like RDI and DPV fit into your operation? It's really a fairly simple process, especially if you're using robust software such as AddressPro from Anchor Software. AddressPro is a callable address verification system that can be incorporated into you sales process with simple scripting commands (like SOAP or XML). The system can be customized to work with your current systems, and can be used in real-time as orders are placed.

It doesn't matter which touch point the customer is using to place the order. Orders can be placed online, through call centers, at point of sale, or through any system that can be set up to make calls to AddressPro.. As the order is placed into your system, a call is made to AddressPro and the address information is run through CASS processing. See Figure 2 for a flowchart describing how the process could work.

First, the address is converted into standardized format and corrected. This can be done with our without input from the customer. For example, if a customer has entered their address on your website, you can correct it as they input the information, or you can present them with the choice of using their address as they entered it or the standardized form and let them choose which to use.

Once the address has bend standardized, the information is run through the Delivery Point Validation process. If the address is flagged as not deliverable, a warning is sent back to the customer touch point, and the customer is asked to verify or re-enter the information. Once the customer has adjusted their address, the information is returned to the validation and correction process. Once

FIGURE 2



a deliverable address has been entered by the customer, the information can move to the next step.

Next, the information is checked against the Residential Delivery Indicator. If RDI returns a code that identifies the address as a business, the order can go through to the final billing and fulfillment process. Otherwise, the address is flagged as residential. If needed, the order system can add an appropriate surcharge. Or the order can be flagged to be shipped through a specific delivery company. For example, if an address is residential or rural, one option would be to use the USPS, who deliver to every rural or residential address (including Guam, Puerto Rico, and the U.S. Virgin Islands) with no additional delivery fees.

Once the address has been checked by the RDI system and any needed corrections are made, the order can move on to the invoicing and shipping stage. Adding a process like AddressPro is transparent to the customer, adds little or no time to the ordering process, and ensures that orders are delivered and invoiced properly.

Conclusion

Many retailers employ some form of address correction and validation in their operations. However the comprehensive nature of USPS Certified CASS software makes it the most efficient method of ensuring parcel delivery. The additional services available through CASS processing means that CASS is the most comprehensive address correction system available, providing the greatest flexibility and cost savings.

Vendors of CASS certified solutions, such as Anchor Software, can provide your organization with detailed information and guidance on how you can improve deliverability of parcels, reduce costs associated with undeliverable packages, and increase customer satisfaction by incorporating CASS processing into your call center, online, or point of sale operations.

Anchor Software Solutions Overview

Anchor Software LLC was established in 2000 to provide comprehensive software solutions for direct mail, direct marketing, data quality, and other related applications. Anchor Software prides itself in delivering comprehensive, products and services designed to meet the needs of our customers that allows them to stay in the forefront of dynamic and highly competitive marketplaces. Anchor's product line includes 60 separate solutions, with over 2000 products installed.

Postal Processing • Data Quality • Document Design

Postal Processing

- CASS™ Certified Solution
- USPS NCOALink® Certified Interface Solution
- PAVE™ Gold (Presort) Certified Solution
- Intelligent Mail® Barcode (IMb) Solutions
- International Address and Data Quality

Enterprise-Level Data Quality

- MDM and Golden Records
- Real-Time Address Validation
- De-Duplicate Files
- Enhance Addresses
- Deceased/Prison Suppression
- GeoCoding

Document Design

- High-Speed Printing and Document Preparation
- Transactional Document Design

Customer Support – Always get a live person when you call!

Anchor Software offers 24/7 customer support and you will always get a live person. Not only will we assist in solving software issues but we will also help with the use of our software!

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