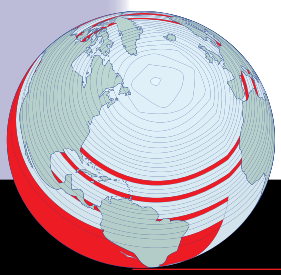
International Application

...automating international mail

Overview

International mailing involves several methods to ship mail to a foreign destination. Most well known are the services offered by the USPS, including International Priority Airmail (IPA) and International Surface Airlift (ISAL). There are many variations on postal authority international products, with services based on mail type, reply services, delivery windows and worksharing, just to name a few. For example Royal Mail, provides a portfolio of services that encompass international mailing needs such as bulk mail, reply coupons and business reply services.

Although sometimes discouraged by postal authorities, another popular method of distributing international mail is remailing. Remailed items go from the customer to an international mail service provider, which then delivers the mail to the appropriate foreign postal authority, or to a private courier with its own distribution network. Regardless of which organization type provides the "last mile of service" to the recipient, the items are essentially "remailed" at the foreign location. Remailing provides postage savings and typically quicker delivery to foreign destinations than postal authorities' international mailing services.



Regardless of which delivery method is used, after the incoming items are received at the processor's facility, they are sorted to the appropriate destination, the appropriate indicia is applied, if required, and the items are bagged for shipment. To complete the process, and do it profitably, processors obtain space at the lowest rates on international air carriers. In most instances lower rates are received for progressively larger shipments so several customers' mail is typically combined for shipment. For this and other services a per piece, per unit weight, or a fee per mailing is applied. In some instances items are processed on an annual contractual basis.

When determining customer charges, an international processor will typically take into account the following parameters of the customer's mail:

- Mail destination
- Frequency of mailing
- Volume per mailing
- Type of mail being sent
- Required delivery times

Some processors also provide additional services to their clients such as mail piece creation, list management, fulfillment services and confirmation services.

With the globalization of the world economy, international mail has become one of the fastest growing segments of the mailing industry with operations currently established in virtually every metropolitan area. Due to their dependence on air transportation, most large international processors are concentrated in cities with frequent international connections, such as New York, Chicago, Miami and Los Angeles. However, this

growth has done little for USPS revenues since it sees only about one third of international mail originating from the United States. The majority of international business mail is sent via international remailers.

Until the past several years, international processing was largely a manual operation with each item hand-sorted to its destination country or to a regional entry point. With the growth in international mail volumes, hand sorting costs dramatically increased and consequently so did the processors' prices. In turn, smaller competitors started appearing with lower prices. To combat this undesirable chain of events, many of the largest handlers began investing in automation to drive down their operating costs and improve margins without further price increases.

Although the USPS sees only a fraction of the international mail revenue, it still provides considerable infrastructure support. IPA and ISAL are still widely utilized to transport overseas mail. The USPS certifies wholesalers for these two services and provides preferential rates to those on the list. These lower rates may in turn create lower ISAL and IPA rates to the end-user, akin to presort discounts for domestic mail. The current list of certified wholesalers* includes:

- Brokers Worldwide
- Cloutier Direct, Inc.
- CDI Global
- CMS, Complete Management, Inc.
- Cornerstone Logistics, LLC
- Dahlgren's Mailing Service, Inc.
- Distribution Postal Co., Inc.
- Express Messenger International
- Express Postal Options International
- Global Postal Services, Inc.
- IBC, Inc.
- International Delivery Solutions
- International Mail Express, Inc. (IMEX)
- International Mail Service, Inc. (IMS)
- Priority Post Co. Inc.
- RR Donnelley
- World Marketing
- Zip Mail Services, Inc.

*Source: www.USPS.com

ISAL is intended for letter mail and utilizes air transporters who carry the items on a "space available" basis. Delivery times for ISAL are typically in the 14 day range, primarily owing to the "space available" constraint. IPA provides a faster delivery time than ISAL for letter items and provides discounts to the mailer for any presorting they perform. Both ISAL and IPA must be entered at a business mail entry unit (BMEU) or a bulk mail center.

International Mail Issues

The increased volume of international mail over the past several years has created several issues for international processors:

- Increased volumes have in turn increased the required sorting labor, but local labor pools do not always support the addition of more personnel
- As competitive pricing pressures have increased, the addition of more personnel has tended to erode operating margins
- The growth of e-commerce has dramatically increased the number of international parcel shipments, straining existing systems to keep pace
- Increased volumes have created a parallel increase in the number of customers, which has created on-going problems for the log-in and billing functions

Application of ID Mail Products

The largest application of ID Mail products within international mail is the use of the Dispatcher Mixed-Mail processing system to code, print, weigh and sort the mail. The Dispatcher reduces the manual labor required to perform these operations, which leads to labor cost reductions with corresponding increases in a processor's margins.

The ID Mail Interface system lets customer jobs be accounted for individually, although the jobs are consolidated for shipment. The Interface accepts job input from the customer's billing system as well as provides output to that same system once the job is complete. This helps ensure accuracy in a customer's statement and saves time.

By automating the information gathering process the M-Bag product allows a remailer to process large volumes of parcels without additional personnel. By eliminating manual completion of shipping labels, M-Bag allows more parcels to be processed per day.

Interface System for Job Input and Output

When a customer's mailing arrives at the dock, a job ID is created within the processor's system by scanning the barcode from the bill of lading or by manually entering information from it. Using the Interface System, this information is transferred to the Interface computer where the information can be downloaded to multiple ID Mail processing nodes, including the Dispatcher and M-Bag. The Interface conserves time during

the log-in procedure by eliminating the manual re-entry of the billing information into the Dispatcher. By automatically accepting the input parameters, transcription errors are reduced, which enhances the accuracy of the customer billing. Because it allows any job to be downloaded to any connected Dispatcher or M-Bag, the Interface provides expedited processing so rigorous airline drop-off schedules can be met.

Once a job is complete, the Interface captures the job data from all connected Dispatchers. Using the Interface, the operator closes all selected jobs and the captured information is automatically downloaded to the customer accounting system. With this single aggregation point, the effort to close jobs and capture the data is minimized.

The Interface captures a variety of job and piece level data, with the two data sets provided in separate files. The job output provides summary information such as the number of pieces processed, the elapsed processing time, the indicia used and customer contact information. The piece output provides detailed information on each piece, such as the item weight, coding result and item format. This comprehensive data enables virtually any type of billing report or operational statistic to be created. The Interface system can be seamlessly integrated to DBF, SQL and text format accounting systems.

Sorting International Mail with the Dispatcher

Because it successfully handles pieces greater than one pound, tightly enclosed polywrap items, rigid pieces up to 5/8" thick and flexible items up to ¾" thick, ID Mail's mixed-mail processing system can process the bulk of international mail. In addition to its MLOCR functions of reading and coding the country from the address, the Dispatcher can also determine the weight and physical dimensions of items. The combination of these abilities allows the Dispatcher to sort the item to the appropriate bin, eliminating much of the previously required manual labor.

To perform sortation according to a city or country, a table of country names must be employed in concert with a WORLD.ware file. The country table contains the names and aliases of all countries around the world while the WORLD.ware file contains the bin assignment as well as any physical characteristics of the items to be used in the sorting. This combination allows sortation by geographic location as well as by size, weight and other item characteristics. For example, a letter less than 2 ounces destined for France can be sorted to one bin, while the next bin may contain flat-sized items greater than 4 ounces destined for Brazil. ID Mail's proprietary INC.ware lookup is used to perform the lookup and assign the items to the appropriate bin.

Enhanced Reading Capabilities

For difficult to code mail, the Dispatcher provides not only its standard MLOCR reading capability, but two enhanced reading options as well, the Secondary Recognition System (SRS) and Local Video Encoding (LVE). With both standard and enhanced reading capability, the Dispatcher is well suited for processing even difficult to read international mail.

When configured with SRS, any items not coded by the Dispatcher's on-board OCR and INC.ware are sent to SRS for resolution. SRS will attempt resolution of not only unrecognized machine print, but handprint as well. As with the Dispatcher's on-board OCR, all recognized characters from SRS are sent to INC.ware for lookup. SRS can be configured for on-line as well as off-line coding.

When Local Video Encoding (LVE) is added, any items left uncoded by the MLOCR and SRS have an LVE tag applied, with the mailpiece sent to the LVE bin of the Dispatcher. The image is forwarded to an LVE station where enough address elements are manually keyed to receive a coding result. When lookup of the LVE items is complete, the LVE mode is selected on the Dispatcher, the LVE tag is read, the coding result for the piece is matched to it and the item is appropriately sorted.

Bin Schemes vs Actual Destinations

Bin schemes for international mail will typically follow one of three scenarios.

Scenario 1: Scheme for bin = destination country: Because it is a high-volume destination for mail originating from the U.S.. As an example, France would typically have a bin schemed just for it. Mail schemed to this bin will delivered to a single point in France.

Scenario 2: Scheme for bin = continent: Low-volume countries, such as those in Africa, will typically be sorted to a single bin. Mail from such a bin may be delivered to a point of entry in or near Africa, or it may be sent to an aggregator of such mail which can ship it more economically due to its increased volumes and lower shipping charges.

Scenario 3: Scheme for bin = regional point of entry: Similar to a point of entry for a continent, a bin schemed to a regional point of entry may be assigned, for example, to Singapore. When the mail actually reaches Sin-

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gapore, it will be mailed to the countries in the region, such as Malaysia, Indonesia and Australia.

Weighing

Because item weight determines the postage cost and plays a part in the cost of air transport, it is a critical element in international mailing. The Dispatcher's in-line, weigh-in-motion scale determines the weight of each item. The scale weighs items as they pass along the transport and sends the information to the Dispatcher control system. Bags (mail sacks) are typically prepared for air transport because they allow for easy handling of the items. When the weigh-in-motion scale is employed the weight of each piece going to a bin can be accumulated in real time so bag full conditions can be determined. Once such a condition occurs, the items are removed from the bin, placed in a bag and the system is re-set to accumulate the next batch of items. Within the control system, the weight and other parameters for each piece are captured for later reporting (see description of Interface system above). The in-line scale employed on the Dispatcher is highly accurate, providing weights within + 0.5 grams, virtually eliminating the potential for a mis-assignment of an item.

Printing

Remailers use the Dispatcher's printing function to accomplish several tasks related to their mail processing. The Dispatcher utilizes a 1.5" print head within its Ink Jet printing system, which allows printing of any one or all of the items listed below. The printing system can print in either black or in color and utilizes standard ink jet cartridges. A high volume ink bladder option is also available.

Indicia application: The Dispatcher's ink jet printing system can print a variety of different indicia on successive mailpieces. The current limit is 10 indicia per job. Once the fixed bitmap indicia is printed in the upper right-hand corner of the item, variable text, such as the item weight or postage, may be printed inside of it.

Destination printing: The ability to apply the destination of the mail piece is a key component of the Dispatcher's printing. Destination printing allows checking of items at various steps during processing so pieces are assured of reaching their intended destination. The destination is typically printed to the left of the indicia.

Internal tracking number application: Processors frequently apply an internal tracking number that contains the job identification number, manifest or piece number, and the machine identification number of the Dispatcher on which the item was processed. Reporting the tracking number confirms the item was processed and creates information for making pricing decisions. The internal tracking number can be printed to the left of or below the indicia.

LVE tracking number printing: When LVE is configured with the Dispatcher, the printer also applies LVE tag numbers, which allow items to be matched to coding results on the LVE pass. The LVE number is printed to the left of the indicia.

For situations where non-absorbent surfaces such as polywrap or Tyvek are encountered, the Dispatcher can be configured with a labeler. The labeler applies a self-adhesive label, which provides a printable surface for the Dispatcher's Ink Jet printer.

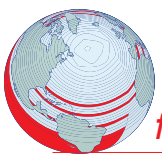
M-Bag – Expediting Small Parcels

ID Mail's M-Bag product automates the tracking and labeling of small parcels containing printed matter shipped to international destinations. Its use with small parcels makes it an ideal fit for e-commerce retailer shipments.

The M-Bag consists of an image scanner and label printer. The image scanner is used to read the shipping information from the customer's pre-applied label. Once captured, the image is printed on a second label for attachment to a USPS tag. The parcel is then placed in a sack after the USPS shipping tag is attached to it. Although straightforward in its operation, by automating the capture and printing of the required information, the M-Bag allows a single operator to process as many items as several operators performing the tasks manually.

about ID Mail

ID Mail provides a range of hardware and software for complete mail processing solutions including accountable mail tracking and semi-automated parcel handling systems.



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