

# Taking the Right Steps to Digital Mailroom Success

A practical guide to scanning, processing  
and delivery automation

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Having spent most of his engineering career in the document processing industry, George founded Mavro Imaging in 2007 to provide optimal solutions to challenging document imaging and management problems. George recognized the need for industry expertise in connecting disparate systems and processing exception items more efficiently and, in response, developed what is now the core of the MavBridge™ Suite, Mavro's flagship product. In light of his many innovations, George holds over 60 United States and worldwide patents relating to mail processing, document scanning, image processing, and data capture. He continues to play an active role at Mavro Imaging, as President and CEO, with a focus on new product development.



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## Chapter 1

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# Introduction



As workforces become increasingly remote, mobile and physically distant, companies of all sizes are struggling with the same mail-related problem – how to get the information within each piece of mail to its intended recipient in the quickest, most efficient way possible. The old way of hand delivery is no longer viable, as in many cases, it would require repackaging and forwarding mail to the recipient’s home or new place of work, adding at least a few days or more of lag time.

The organizations that continue to distribute physical mail are drowning in labor costs, including courier and expedited mail delivery fees. Consider the expense and inefficiencies related to this all-too-common scenario: Physical documents are passed from city to city, campus to campus, building to building, floor to floor, department to department, and finally to a recipient’s desk, who was just relocated to another campus or works from home most of the time. Many organizations just continue with the status quo based on the assumption that mail volume will decline until it disappears entirely. While decline is inevitable, it will be many years before physical mail is eliminated. Meanwhile, the cost per mail piece delivered continues to rise, as does the frequency of items not reaching their intended recipient.

To alleviate these challenges, many mailrooms are considering moving to a digital model, but have delayed implementation, while searching for a perfect solution. The benefits of reducing paper handling are well recognized and documented: Productivity, security, continuity and efficiency. By digitizing as early in the process as possible, organizations can minimize the number of physical documents flowing through the organization to maximize these benefits.

In this white paper, we explore best practices garnered from decades of experience deploying digital mailrooms. When properly implemented, these guidelines will help you:

- Select the best scanning method
- Remove as much paper as possible from the physical mail stream
- Optimize recipient identification and delivery
- Understand which delivery methods will encourage user buy-in and facilitate improved response time

Whether you are a small business with a handful of remote employees or a multi-national corporation with scores of locations throughout the world, there has never been a better time than the present to implement a real digital mailroom.

# Digitizing the Corporate Mailroom: the Basics and Benefits

Organizations receive the bulk of their physical mail from the United States Postal Service (USPS). Typically, high-volume transactional mail, such as applications, medical claims and remittance payments, is received at specific corporate locations, sorted by the USPS, often by Post Office Box. Since most organizations already have a finely tuned production-based process to scan and process this type of mail, we are going to concentrate on the exception items received at transaction processing centers and the mixed mail received at general corporate mail locations. General mail consists of a wide mix of envelopes delivered by the USPS, expedited services such as UPS or FedEx, courier delivery firms or internal locations (interoffice mail).<sup>1</sup>

Compared to the traditional, paper-based mailroom, digitization facilitates and accelerates electronic delivery, enhanced searchability and access:

- To process incoming and interoffice mail, organizations can start with a simple workflow that includes the most basic steps: Scanning, classification and delivery. The scanning process must be streamlined to achieve necessary efficiency. Classification should be flexible and easily updated as needed. Delivery should accommodate the various needs of the enterprise including options for delivering directly to an individual, a group, or specific workflow.
- Instead of manually looking through a desk or mounds of paper, you can simply type in a key term and find the desired document and information. In many cases, these searches can automatically highlight and route information without additional human intervention. The time required to locate needed information is significantly reduced.
- When using a paper-based system, information sharing is also slow and cumbersome, even once you have the document and information in hand. You have to type the details into an email, scan the original document or forward the paper document, all of which are inefficient. Digitizing early in the process, in this case the mailroom, streamlines and enables widespread information-sharing.

<sup>1</sup> The primary focus of this white paper is the efficient handling of first class and priority accountable mail. While standard mail, advertisements and magazines can also be considered, we generally recommend that organizations discard those items and alert recipients of the new policy so they can redirect non-forwarded mail items to their homes or obtain electronic versions. Additionally, the organization should adopt a short period during which the first page of a magazine is imaged or the magazine is forwarded. For mailroom digitization to be successful, the number of physical items forwarded must be minimized.



## Chapter 3

# Scanning Goals: Minimum Touches, Maximum Efficiency

To tackle the lowest and largest hanging fruit first, planning your digital mailroom should begin with scanning, specifically by examining how the distribution of physical mail throughout an organization may influence scanner choices.

Locations with sizable mail volumes certainly justify larger, faster, more capable (and more expensive) production scanners. In contrast, locations with lower volumes have the opportunity to select from an endless array of smaller, slower, less expensive scanning options: Workgroup and departmental, personal and portable, Multi-Function Peripherals (MFPs), and mobile phones.

Alternatively, locations with lower volumes may consider adopting a centralized scanning model, whereby documents are sent to a corporate imaging department for scanning. This approach reduces the number of scanners, produces more consistent scanning quality, enables a better controlled and more secure scanning process, and provides centralized document storage. When the imaging department is in the same area or floor, building or campus, the use of interoffice mail can be considered when practical, although immediate, local scanning may better support corporate policies around document retention and security.

As the distance from a centralized scanning location increases (e.g., small satellite offices, home offices, and frequent travelers), a more flexible, distributed scanning model is typically the best fit.

Document quantity and type, retention needs and courier costs should also be considered when choosing the optimal scanning model. For example, are you scanning a few restaurant receipts that can be discarded immediately after imaging or a multi-page, million-dollar, signed contract that requires long-term storage?



**BEST PRACTICE:**  
Whenever possible, scan promptly and closer to the source – in other words, truncate paper movement as soon as practical.



## Evaluate Costly Labor Steps, Especially Document Prep

Whether production scanning takes place at a single centralized location or multiple scanning hubs across the enterprise, some of the most significant opportunities for labor reduction and quality improvements exist right in the scanning center, within the document prep process.

While scanners continue to incrementally improve in speed and image quality, these upgrades have become marginal, offering small, almost insignificant, impacts on productivity. Instead, document prep is the step in the process, which is often neglected, yet provides the greatest opportunity for productivity gains.

Next time you have an opportunity, take a tour of your company's mail center, and check out the entire scanning process. If your mailroom processes a high volume of mail, you will likely see a pool of prep operators thumbing through trays of incoming mail and out-sorting exception envelopes. The qualified envelopes are then distributed to a second group of operators for content extraction and first-pass sorting. Sometimes envelopes are retained, but more often they are discarded, and a full-page separator is added between each transaction. Additionally, if an

envelope contains multiple transactions, additional separators are added. Operators then determine the transaction type and place it in one of several document piles. Often, a second sorting step is conducted by yet another team to achieve a finer level of sort; in some cases, hundreds of sort types are required.

Only after these multiple sorting steps are completed can the documents be scanned. It's not uncommon for the ratio of prep operators to scan operators to be 5:1, 10:1 or even higher. Accordingly, the best opportunity for labor savings is to focus on document prep, not faster scanning.

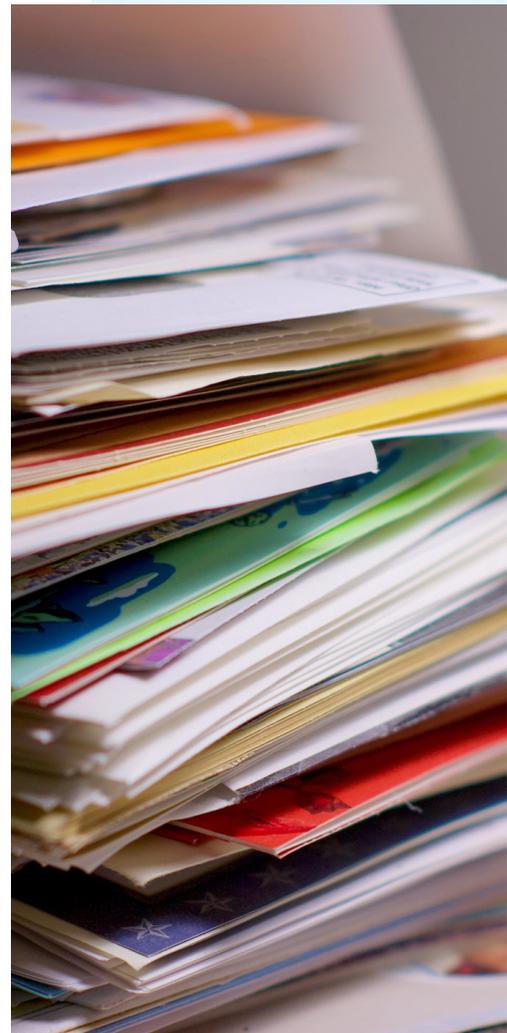
**...focus on document  
prep, not faster  
scanning**

## Challenge Current Assumptions and Business Processes

Some organizations have adopted what at one time might have seemed (and perhaps was) an optimal mailroom solution. Nevertheless, as stakeholders, your job is to evaluate current processes, challenge assumptions, and make the necessary changes to reduce costs and improve quality.

For example, in one digital mailroom model we encountered, the majority of the mail is not handled once or even twice, but numerous times. Unopened envelopes are initially passed through an imaging process in which the front of the envelope is scanned and a barcode is printed on or attached to the envelope. The envelope image is then emailed to the addressee, who must instruct the mailroom to open and scan, forward the physical mail, or discard. If the recipient does not respond within a particular time window, certain prescribed escalation processes come into play and the piece is actioned accordingly, a delay which can add hours or even days. After receiving a response from the addressee, the mailroom must take the appropriate action, thus adding more time and expense to the process.

Not only does this workflow result in additional time and cost, it also adds the complication of storing the physical mail while awaiting the addressee's decision, as well as eventually finding the pieces to action those decisions. Most companies that employ this workflow attempt to get as many employees as possible to agree to a scan-everything scenario. However, this adds the step of an initial sort in order to isolate the mail belonging to employees who do not want all their mail scanned. In large-volume mail rooms, this can add significant time to the process.



## Changing the Paradigm: One-Touch Path to Efficiency

We recommend a digital mailroom approach that minimizes document handling by drastically reducing, or preferably eliminating extraneous envelope handling and document sorting after extraction. Also, when practical, we encourage use of the envelope itself as a transaction separator rather than adding costly transaction patch sheets. Unlike transactional mail, where the envelope image has little benefit, correspondence or general mail envelopes often identify the recipient.<sup>2</sup>

<sup>2</sup> The recipient can be identified by mail stop, name, title or a combination of all three. Without the envelope, there is no guarantee that the contents alone include all the necessary information. Of course, windowed envelopes are used when the first page of the contents contains the name of an individual or department. That said, even in the case of a windowed envelope, an image of the envelope may be useful should a return address, postal barcode or date stamp have downstream benefits.



With these principles in mind, envelope processing and content extraction can be conducted either manually or with the assistance of semi-automated extraction equipment. In turn, prepped stacks of unsorted work can then be scanned through high-speed production scanners designed to accommodate a range of intermixed document types, including empty envelopes. Note that the use of some production scanners may be limiting, since a number of these devices jam when envelopes are scanned. Alternatively, they will require the disabling of the double-feed functionality in order to operate. Accordingly, it's important to seek out scanners with effective envelope scanning capability. Also note that many downstream software programs are unable to process mixed batches of work containing various transaction types and documents – as such, evaluation of downstream processes must be carefully considered.

Ultimately, the greatest efficiency is gained by utilizing a process that combines processing of all

envelope types without sorting along with effective envelope opening, content scanning, and minimal document handling. The One-Touch extraction inherent in OPEX Falcons scanners and integrated with Mavro One-Touch Processing achieves all these steps in a single, continuous, seamless workflow. Envelopes are automatically cut open, allowing the operator to unfold pages, remove staples and prepare the documents for scanning. Single pages or groups of pages are then dropped onto a roller bed and automatically conveyed for imaging. Next, the envelope is dropped onto the roller bed and also imaged. After documents and envelopes are scanned, they are placed into storage trays or boxes so that further handling is minimized or eliminated.

By opening the envelope and immediately digitizing the envelope and its contents, the cumbersome steps of other digital mail workflows are eliminated. Also, the advantages gained by digitization are capitalized on from the very first touch of the mail.



## Chapter 4

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# Making the Match: Document Classification and Recipient Identification

After items are scanned, the next step in the digital mailroom is document classification, or as we like to call it, recipient identification (recipient ID). When practical, organizations should utilize a unique mail stop for each recipient, whether that be linked to a specific individual, group of individuals or department. However, reading the mail stop automatically with optical character recognition (OCR) alone may not be sufficient to achieve a high-confidence recipient ID match. Even if the mail stop is read perfectly, it might have been printed incorrectly, been recently changed, or the recipient may no longer be with the company.<sup>3</sup> Here's where Artificial Intelligence (AI) using an intelligent matching algorithm with the recipient's name – either on the envelope or on one of the imaged content pages – can be extremely valuable. Furthermore, a validation process to qualify a mail stop or recipient name and a cross-reference to another recipient (when necessary) is beneficial.

<sup>3</sup> It is important that organizations maintain accurate employee listings and that the system allows for the editing of business rules and name lookups.

In the event a mail stop is not utilized or a lookup of an individual's name or department is inadequate, automated lookups using robotic process automation (RPA) or word matching across one or more of the content pages are good options.<sup>4</sup> In addition, there are instances where a manual review and lookup can be efficient and effective, especially for organizations converting from a completely manual process.



The inclusion of a manual review can help overcome the reluctance to convert the classification process to a fully automated one – both in terms of perceived cost and quality impacts.



Implementation costs can be reduced by excluding some advanced classification functionality, which could always be added later.



A simpler, swifter implementation can drive higher adoption.<sup>5</sup>



<sup>4</sup> There is also an opportunity to identify multiple transactions within an envelope, each of which may need to be directed to a different recipient. While not essential in most applications (as the physical delivery of envelopes to a single destination has long been deemed acceptable), it is another potential benefit of digitization.

<sup>5</sup> From a pragmatic perspective, the considerable cost savings achieved by optimized one-touch scanning and reduction of courier costs dwarfs a moderate level of manual review. Plus, as mail volumes continue to decrease, the payback for advanced classification methods may be marginal.

# The Last Mile: Delivery



After mail is digitized and the destination identified, the next step is to deliver the digital assets to the intended recipients. For the most part, the process can be rather simple and flexible, in order to easily accommodate most customer auditing, security and compliance requirements.

Information is arguably the most valuable asset of any company, which is why monitoring its access and dissemination is a crucial aspect of delivery. Paper-based systems and systems that allow for paper to penetrate the organization beyond the gateway (mailroom) typically have lapses in their process that make proving compliance difficult. Physical paper is simply not monitored like digital assets. While auditing and tracking paper documents is, at best, difficult and, at worst, impossible, digital systems can monitor, limit distribution, and audit all access activity (an invaluable benefit should a delivery problem arise).

As far as delivery itself, there is no single method that works for all organizations. Some entities already have a suitable infrastructure that meets internal security requirements with several delivery or interface points, depending on transaction type. Let's look at a few options:

- An organization currently using email to distribute information and documents securely. The company uses a multi-function printer (MFP) to scan documents that are only occasionally received, creates a PDF on a local drive, initiates an email message manually, attaches the PDF, and finally sends the document to the intended recipient. If the email system has the necessary controls and can accommodate the projected image size and document volume, the company can use the same delivery method for digital mail. It is simple, effective and may be the lowest barrier to implementation.
- Delivering digital assets to a document management system – whether already part of the customer's existing infrastructure or a component of a solution provider's product suite – is a step up in complexity and functionality. It provides additional controls, the ability for multi-user access, searching capabilities and much more. Recipients receive a notification email (either for each new digital asset or on a set schedule) with a link to the documents.
- A simple output to write a file to a specific file share or SharePoint location is effective, especially if there is already an established process in place to pick up those files and move them to the correct destination.
- Delivering directly to an active work queue is also effective and makes use of existing functionality.
- While the use of web services (SOAP, REST) or other APIs does increase the complexity of any project, the integration capabilities demonstrate product flexibility and minimize the need for custom development.



## Handling Exceptions and Objections

Every project deployment has outliers; here's how to handle a few of those frequently encountered during a digital mailroom implementation.



**Occasional delivery of physical documents from the scanning location to a specific destination:** Start by respectfully challenging the request to determine if it's an absolute need. If it is in fact necessary, utilize a system-based tracking method for the target documents.



**Processing requests for specific document types, typically performed at designated locations:** For example, a check received in San Francisco would typically be couriered to Chicago for processing. With current technology, these items can now be scanned remotely and the images automatically delivered to the desired destination for processing—in this case Chicago. Your implementing vendor may offer this capability, especially if you select a partner with a diverse product offering.



## Chapter 6

# Conclusion

Digital mailrooms fit the way that people work today. The COVID-19 pandemic has proven that hot desking and remote working keeps the workplace agile and significantly reduces costs. And as the mobile workforce is today's reality, a paper-based mailroom is impractical and outdated, yet a persistent requirement for most businesses. People are no longer in the office five days a week, but they still need access to the information contained in their mail. In the digital mailroom, that information can be scanned, classified and injected into the information stream with all relevant data ready to be analyzed and actioned.

When deploying a digital mailroom, it is important to work with a partner with the expertise, experience and energy necessary to help you realize the maximum benefits and ensure the mailroom's long-term success. As you embark on your journey, consider the following:

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**1** Secure organizational commitment to digitize physical mail with few exceptions.
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**2** Begin by identifying a scanning platform that will enable you to achieve your goals.
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**3** Utilize a software suite designed with flexibility to enable a simple start and a more complex finish.
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**4** Remember that "simple" often translates to the most bang for your buck.
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**5** Build on to your existing infrastructure as much as possible.

## About Mavro Imaging

Mavro is committed to helping companies gain efficiency, reduce manual labor and save money by intelligently processing documents and payments. Our revolutionary remittance, forms, medical claims and lockbox software is fully configurable, scalable and is backed by support from our responsive team of experts.

To learn more, visit [mavroimaging.com](http://mavroimaging.com)

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