Achieving Maximum Value From Color Inkjet Printing Investments

Sefas

A Madison Advisors White Paper
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MADISON ADVISORS

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EXECUTIVE SUMMARY

As companies prepare to invest in color inkjet technology they, and the manufacturers they work with, typically focus on the printer and its capabilities:

- output quality – typically proven by running test files
- throughput – from specifications on print engines and drying times
- range of media supported
- finishing options – evaluating OEM and third party components

These considerations are all valuable, and of course, necessary; however, Madison Advisors believes these considerations alone are not sufficient. Furthermore, the workflow that enables the acquiring company to achieve the full value of the inkjet investment is worthy of equal attention. That workflow is the subject of this paper.

All inkjet printing hardware vendors offer value added capabilities in their print server or through third party add-on modules to handle the basics:

- queue jobs for one or more printers
- transform print streams to formats the printer can process efficiently
- substitute electronic overlays on-the-fly, eliminating preprinted stock
- concatenate jobs into larger output files to enable continuous printing

Madison Advisors believes that buyers who pursue this limited set of basic capabilities alone are at risk of shortchanging themselves, and their customers by not investigating the workflow.

In this White Paper, we explore the broader context of implementing color inkjet for customer communications, the workflow issues that companies should consider during the evaluation process, and proven techniques to fully unlock the value of color inkjet. Our objective is to surface the issues ahead of the technology investment so that companies can take the necessary steps before the hardware hits the shop floor, and the lease payments start.

By understanding the full business context around the new printer investment, an informed buyer can make the right investments at the right time, and ultimately achieve a greater return-on-investment and customer value proposition.

MARKET CONTEXT

Color inkjet printers, with volumes ranging from 10 to 100 million pages a month, can bring a reduction in the cost of producing critical customer communications. Color inkjet printing frees a print operation from the burden and costs associated with managing and warehousing pre-printed forms. The productivity of inkjet printers can allow a service provider, whether an outsourcer or an in-plant operation, to consolidate devices, eliminate legacy equipment leases, and reduce staffing requirements. Savings around labor, materials, and equipment can produce significant, multi-million dollar, returns.

Color inkjet printing technology also allows for more dynamic customer communications. Service providers can bring more value-added services to the client, with much more flexibility afforded by "white paper." With inkjet comes greater variability, more dynamic data presentation, highly targeted messaging and the opportunity to convert from inserts to digital "onserts." With an inkjet investment, service providers can remain a relevant, price competitive component of an overall marketing strategy, taking on a broader range of work to offset the market trends that are impacting the volume of printed communications. When business decision makers are looking at their marketing spend, appropriate use of color increases the value of printed communications by driving up open and response rates.

With all of the value inkjet can bring, buyers need to understand that the acquisition of a new color inkjet printer alone will not magically deliver cost reductions and create new value-added services. Service providers should consider four impact zones to realize the full benefits: upstream, midstream, downstream and globally. In the next section we will explore in detail the workflow considerations in each of these impact zones:

GLOBAL

Optimize the full-service customer experience

UPSTREAM	MIDSTREAM	DOWNSTREAM
Optimize the data to leverage the high throughput of the printer	Optimize output performance and fully utilize finishing systems	Optimize the data for inserting, distribution, and archiving

UPSTREAM

Most applications being migrated to color inkjet are existing "legacy" applications. Legacy applications were built with production marks that were common at the time, and typically, each application was created serially, one at a time. Often these legacy applications are in output formats commonly used at the time the application was developed. Thus, migrating a large number of legacy applications requires more than a print server and its base level of concatenation and forms replacement.

This creates an upstream opportunity to use a repeatable approach to take full advantage of each manufacturer's print server with three main considerations:

Normalization: Enable any fully composed output to be converted to pages or data that can be viewed, enhanced, and optimized. Compose any new output in that same format, in order to combine with documents from fully composed print streams.

Standardization: Create a small set of standardized "processing applications" that can be applied to all legacy output, generating standard processes for both print and electronic communications. Long term, minimize the cost of application maintenance and support global changes when new infrastructure is put in place.

Rapid Onboarding: Enable jobs to be rapidly migrated through automated QA and into production in waves, getting more jobs on to the color inkjet printer faster.

MIDSTREAM

Color inkjet printers should have high uptimes and are most efficient when running without interruption. Yet, optimizing jobs for a roll-fed environment, to minimize loading and unloading can be a challenge.

The print server can direct output to available print engines, support load balancing, and gather accounting data. Canon Océ PRISMA Production Server, HP SmartStream, Ricoh Process Director, Xerox Free Flow, and Pitney Bowes IntelliJet Print Process Manager offer functionality to manage the printer itself. Each of these vendors has a solution for concatenating small files into a larger file to achieve higher productivity, and applying form substitution. Merely doing these baseline activities, however, misses out on real savings opportunities.

Merging jobs, not just concatenating them, is the critical function in meeting the optimization challenge head-on. Merging allows the many small jobs that account for a production operation's highest cost, and greatest

risk due to manual handling, to be merged into a large pool of output optimized for the color inkjet platform.

In the next section we explain the four capabilities beyond the baseline that support merging.

Job Management: The workflow management software must keep track of each input job for charge back accounting while merging these jobs into new "operational" jobs to reduce the work effort downstream.

Merging: Jobs that fit matching criteria are aggregated until a "trigger," based on a business rule, releases the jobs to merge creating larger work units optimized for the printer and inserter. The rendered output files take minimal time to interpret and print, while supporting the full functionality of the print controller and further they're optimized and sequenced properly for inserting.

Batching: Enabling operations to aggregate a collection of individual documents into a production "batch" affords the business customer greater flexibility to compose documents one at a time, and leaves queue management where it is optimally handled: in operations. Batching enables operations to run jobs at efficient intervals, rather than waiting for the end of the business day to begin the production run.

DOWNSTREAM

Experienced operations managers understand that the real bottleneck in production is in the last step of the process – inserting and sorting. By merging jobs on the inkjet printer that are "like processed," fewer inserters and setups are needed. Manual handling or "hand stuffing" of short-run jobs, and the attendant risks can be avoided. With file-based processing, inserters can run uninterrupted.

The following are important considerations for the downstream zone:

Barcode Rationalization: Replacing existing job-specific barcodes with a single sequential barcode generated for the output file at rendering so the inserter can run without stopping.

Inserting Control: By generating the inserting control file after printing, operations can support last minute intervention, such as document diverts for holds or special processing and utilization of the inserter's divert bin.

Automating Reprints: Utilizing the inserting results to automatically generate reprints without creating a new "orphan" job to manage and report on, and supporting a touch-and-toss process.

Postal Optimization/Commingling: Merging jobs to aggregate and "pool" mail pieces and provide an opportunity to cleanse addresses, execute digital presort, compare addresses against the NCOA database, and divert documents with bad addresses for special handling. The greater the number of mail pieces aggregated into a postal delivery zone, the greater the savings.

Archive Transfer: Generate the files needed to archive, including metadata tags embedded in the print stream or as a separate file and create the audit trail proving the documents were produced.

GLOBALLY

The investment in color inkjet is about more than cost savings. It can also generate an opportunity to increase customer loyalty, boost response rate, and support promotional messaging. This enables the service provider to become a value-added extension of the customer's business.

The service provider can provide insight into processes, operations, and the customer communication lifecycle, including job status information, job tracking, correspondence tracking, and complete audit information.

Several considerations for this zone include:

Document Lifecycle Tracking: By tagging each document with metadata, the service provider can provide the means to find and intercept a document; and then either redirect it to a different distribution channel, or divert it from the work stream entirely.

Supporting Data Analytics: Optimizing print files presents the service provider with an opportunity to create new value streams by engaging in data mining activities that support business intelligence and business processes.

Messaging: With color inkjet, the application of messages to customer communications is no longer limited to pre-printed inserts. With the advent of this new technology, messaging can be supported inline as part of the printed output or using color inkjet to insert messages on the outside of the envelope.

SEFAS OVERVIEW

Sefas Innovation, one of the CCM technology companies that Madison Advisors tracks, offers a comprehensive set of tightly integrated tools to address workflow needs throughout the design and production process. Sefas Open Print Producer™ is the core system for defining and managing steps in a print production workflow. Producer tracks all of the actions and provides the core technology for document lifecycle tracking, merging, batching, and reporting. Open Print Designer™ supports both document composition and post-composition in a single product. In post-composition mode, Designer allows users to input an existing print-ready file, identify page boundaries, add production marks, and where permitted, even enhance the document. In composition mode, companies that want to add value by providing composition services can build new applications. Designer is used across all industries that generate critical communications, including: healthcare, benefits management, insurance, banking, utilities and government.

Sefas is truly "vendor-neutral" in the ever-growing world of inkjet, and Madison Advisors has found Sefas users across inkjet platforms. We have spoken to companies using Sefas solutions with Canon Océ ColorStream, HP Inkjet Web, Ricoh InfoPrint, and Pitney Bowes IntelliJet series inkjet printers. These companies made major investments in color inkjet hardware, typically buying two or more printers, and needed a technology partner that would help them through a large scale deployment. Some of the service providers came to Sefas after other products fell short. Some knew in advance that they needed a comprehensive workflow platform. In all cases, Sefas provided a complete platform, along with a strong bench of professional services resources, enabling the customer to get to ROI faster while implementing the new inkjet technology.

A particular strength of Sefas' technology is its ability to support the development of "many to one" utility applications. Whereas post composition activities have historically involved creation of one post composition application for each composition application, Sefas changes the dynamic altogether. Madison Advisors spoke with a Sefas customer who applied the utility application model to 450 legacy insurance applications and required only one processing application, proving the utility Sefas had told them to expect.

A second strength is Sefas' "Rapid Onboarding" approach – the objective being to reduce the effort and complexity involved in converting applications leveraging the benefits of the new print technology more quickly. Madison Advisors interviewed a service provider in the healthcare vertical that used the Sefas rapid onboarding approach to convert its legacy mainframe applications to run on its new color inkjet printer ten times faster than if it had used existing tools.

One of the biggest challenges with merging jobs is managing the data for accounting and reporting purposes. The Sefas solution keeps track of input jobs for reporting, balancing and job status, while creating new merged

jobs that are seen by operations. Sefas tracks the lifecycle of each individual document from the originating file to the merged file and through any reprint files, so proof-of-mailing audits can provide the full lifecycle data. One of the Sefas customers we spoke with said the number of print jobs on its production floor dropped by almost 80% with the Sefas merging capabilities. This dramatically improved the productivity of staff in all production areas.

MADISON ADVISORS' OPINION

Color inkjet printing will take on not only new applications rich in color and dynamic in presentation, but also legacy applications that are in need of enhancement.

Many companies can support a select set of the capabilities to address the service provider's needs upstream, midstream, downstream, and globally. Sefas is the only company Madison Advisors has identified that can address this entire set of needs with a single integrated solution. Sefas has a platform to handle data optimization, tracking, reporting, and security that is used by leading banks, healthcare payers, telecoms, governments, and benefits managers.

Madison Advisors recommends a company looking to acquire a color inkjet solution for its production environment focus on how to improve the document workflow before making a decision on a printer. We recommend investigating how Sefas Producer and Designer can streamline the workflow. Adding Sefas to the mix may reduce the amount of software needed from the printer manufacturer and ultimately provide a better solution for maximizing the return-on-investment in color inkjet technology.

ABOUT THE AUTHOR

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In his role with Madison Advisors, Jeff provides both end-user and vendor project-based advisory services in the enterprise output technology space. He has extensive knowledge of numerous output management systems in the transactional and print-on-demand markets, including print management and workflow systems, and leading electronic delivery solutions.

Prior to joining Madison Advisors, Jeff spent six years with Canon/Océ in their business process outsourcing group. His focus there ranged from managed print services to high volume POD shops. Client solutions included software such as uniFLOW, Equitrac, and eCopy, amongst others.

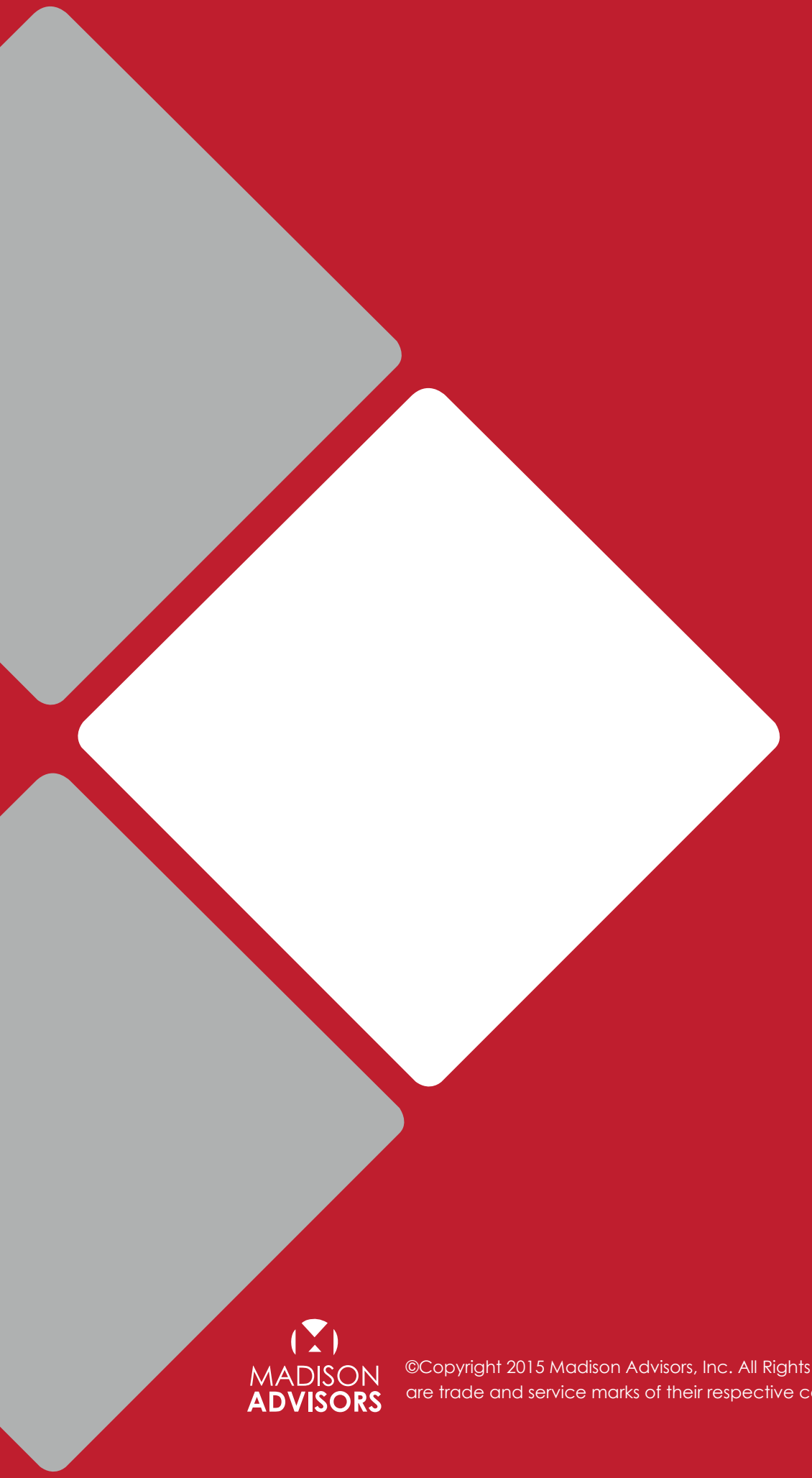
ABOUT MADISON ADVISORS

Madison Advisors exists to advance the print and electronic communications objectives of Fortune 1000 companies. Madison Advisors specializes in offering context-specific guidance for a range of content delivery strategies, particularly those addressing enterprise output technologies and customer communications.

Madison Advisors offers services and expertise primarily through short-term, high-impact consulting services. With no-nonsense, quick engagements (measurable in days or weeks, not months), Madison Advisors directly helps our clients achieve very hard and specific return-on-investment (ROI) related to their print and electronic communications initiatives.

Madison Advisors' analysts are dedicated to technology and market research that is delivered through short-term project engagements as well as articles, publications, and presentations. We specialize in customer communication technologies including enterprise output management, content management, customer relationship management, e-billing, and infrastructure technology.

For more information about Madison Advisors, visit our web site:
www.Madison-Advisors.com.



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