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Investing in Digital Color... The Bottom Line

By
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A Research Monograph of the
Printing Industry Center at RIT

November 2003

No. PICRM-2003-10

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With Thanks

The research agenda of the Printing Industry Center at RIT and the publication of research findings are supported by the following organizations:



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Abstract

The purpose of this research is to understand the investment requirements that digital color prospects will face in order to build a digital color business. Printers and prepress firms have been hearing that the cost of ownership is declining, but they need to understand that the business model reaches far beyond cost per page. Not only do digital color printers need to purchase equipment, maintenance support, and consumables, but they need to build the right infrastructure to deliver value-added digital color services to their customers.

This research report will examine the various equipment, RIP, and software options print service providers have for migrating into the world of digital color and the associated costs. More importantly, this document will describe what is required to transform digital color equipment into value-added services. Case histories will provide a detailed analysis of the infrastructure needed to make a digital color business thrive. Users will discuss their migration into personalization, Internet services, fulfillment, and distribution. Current owners will also review the investments that were required in digital front-end solutions and software, as well as personnel to sell and support digital color offerings. This white paper is designed to aggregate standard digital color cost elements that are easily identified with infrastructure needs in order to provide a complete investment picture for the world of digital color.

Introduction

In their sales and marketing efforts, digital color equipment manufacturers have created a value proposition based on declining cost per sheet and more affordable low-end digital color devices and consumables. Printers and vendors have failed however, in their efforts to accelerate growth in digital color to understand the real cost of building a profitable digital color business. As this new equipment began to roll out into the market, the savvy digital color print provider quickly discovered that the key to survival with digital color printing was to de-commoditize print. Success required more than making color prints better, faster, and cheaper. High-growth digital color document service providers started offering value-added services and support by making their print shops more accessible via Internet interfaces, providing ease-of-use tools and templates for the novice user, providing digital asset and content management services; and integrating into client Customer Relationship Management (CRM) solutions with variable data support.

Despite all of that, one of the missing components in the business case analysis for digital color has been a clear understanding of the infrastructure investments required to effectively support the successful implementation of digital color. Depending upon the print service provider's target market and application mix, the infrastructure investment can be substantially greater than the original investment in digital color equipment. Printers who are investing in digital color need to look at the true cost of successful market participation, not just the cost of equipment and consumables.

The Printing Industry Center at RIT surveyed 40 users of digital color technology to assess the real investment that was required to develop a successful business model. Key areas that were explored with survey participants included:

1. Level of satisfaction with their digital color investment
2. Print applications provided to clients
3. Value-added services offered to differentiate print solutions
4. Staffing levels and skills required to optimize the digital color investment
5. Technology—printers, RIPs, generally available software purchased, and proprietary solutions

The level of investment was directly related to the printer's target market and application mix. Four clear market segments and investment levels emerged from this groundbreaking research. We also learned that the majority of companies interviewed were satisfied with their overall business results given their chosen market segment.

Level 1: Quick-Print/In-Plant

In the quick printing community, the acquisition of digital color equipment has centered on the fast delivery of cheaper, and more colorful documents. The primary customer base is still the walk-in retail storefront market. The key applications are business cards, stationery, presentations, proposals, and short-run on-demand manuals and brochures. The key value proposition for the customer is convenient access to print capacity that would not otherwise be available, quick turnaround time, and affordability.

The corporate in-plant has historically focused on digital color copying for quick-turnaround applications. Because in-plants don't compete directly with other in-plants or commercial printers, the key value proposition that they

Introduction

deliver is the ability to produce work more inexpensively than commercial printers, thus saving money for their organizations.

Level 2: Commercial Print—Short-Run On-Demand/Supply-Chain Management

In this model, the service provider, often a commercial printer, combines digital color with supply chain management, which may include materials management, customized complex kitting, and distribution and fulfillment services. The service provider creates value by helping corporate clients increase the efficiency of their supply chain and deliver products more cost-effectively, reducing the inventory of documents and overall obsolescence. These print providers help a variety of corporations improve the performance of their print and promotion fulfillment programs. They identify opportunities to reduce total costs, accelerate time to market for information, and increase sales by better managing the steps involved in the production and fulfillment processes for items ranging from information kits and enrollment packages to promotional materials. These organizations typically have their roots in the traditional commercial print market and use a blend of offset and digital equipment to produce printed product. Based on customer need, they determine the most cost effective technology for a given application at a given point in time.

Level 3: Customized Internet On-Demand Services

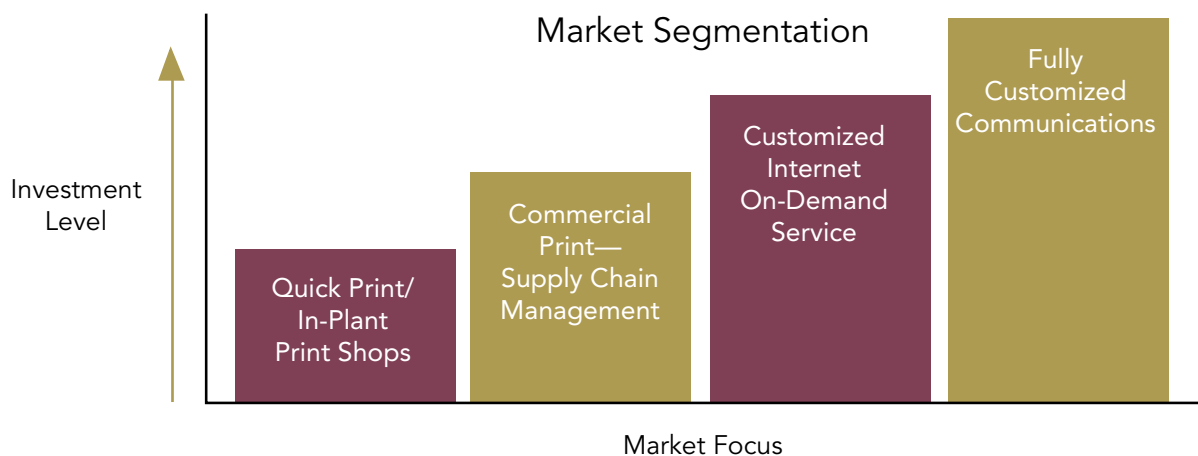
Service providers in this market space focus on engaging local marketers affiliated with nationwide organizations in the creation of market-

relevant content. They develop Web-based template solutions that let the local sales channel leverage its knowledge about market characteristics and nuances. The end user can add localized information (data) to an existing Web-based template to create customized marketing materials in small runs and on demand. The technology ensures that brand integrity and corporate messaging are not compromised.

Level 4: Fully Customized Communications

These service providers have built a software infrastructure that allows users to design and produce customized marketing materials on demand. They work with clients in planning data acquisition and data-mining strategies to individualize the offerings. This information is intelligently and automatically embedded into customized marketing communications. Marketing materials are generated on the fly, dynamically selecting and including relevant, up-to-date customer information and related resources based on predefined parameters.

The objective of this type of service provider is to deliver communications that are personal, sophisticated, and flexible. The technology infrastructure means users can target specific groups or individuals with tailored messaging and imagery; create full-color documents that combine text, photos, charts, and graphics; and deliver printed materials, PDFs, or Web pages depending on customer needs. The value proposition lies in helping clients derive maximum value from *their* customer information for marketing communications materials with maximum impact.



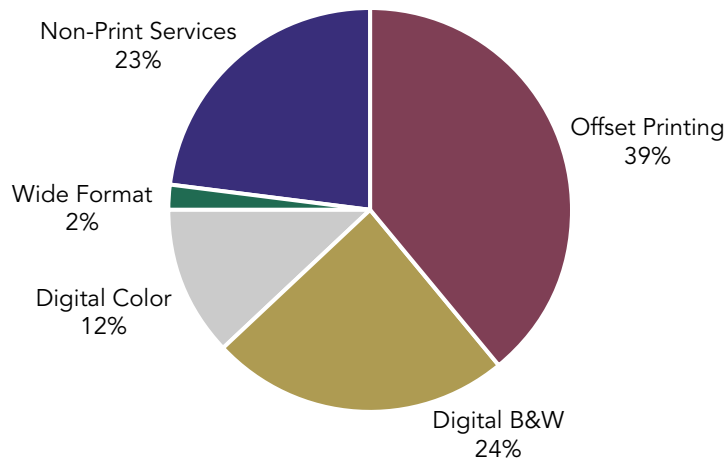
Market Segmentation Levels

LEVEL 1: THE QUICK PRINTER

The franchise segment of the quick-printing industry continues to contract. At the start of 2003, there were 3,359 franchise print shops—184 fewer than the previous year, a net loss of five percent. The combination of a struggling economy and a print industry that is experiencing consolidation has led to some interesting challenges for the 13 U.S. franchise systems. In spite of market difficulties, though, they generated total sales in 2002 of more than \$1.66 billion.¹

According to the April 2003 *Quick Print Franchise Review*, offset printing accounted for a total of 39.9 percent of all sales, and copying/digital printing made up 37.5 percent. Black-and-white digital/copy output was the largest category, overall making up 23.9 percent of sales. Color digital work comprised 12.1 percent of sales. The newly categorized wide-format printing was responsible for 1.5 percent of overall sales. Non-print services counted for a total of 22.6 percent of the total. This included prepress services, finishing/bindery, and brokered work.

In the quick-printing community, the acquisition of digital color equipment has centered on the fast delivery of cheaper and more colorful documents through retail storefronts. The application mix (primarily business cards, stationery, presentations, proposals, and short-run on-demand manuals and brochures) requires a limited investment in infrastructure at the local franchise level. To support the retail-centric market, the majority of quick printers have digital color copiers that produce from 12 to 60 pages per minute and the associated RIP technology. The quick copy center will typically provide an array of finishing capa-



bilities not otherwise accessible to the customer. The franchisee does not have any substantial IT staff support. Based on interviews with Sir Speedy, Kinko's and Triangle Graphics, the average franchisee/local quick-print shop spends about \$0.10 on infrastructure for every dollar spent on digital color printing equipment. The quick-print franchise corporate headquarters location makes the technology infrastructure investments that set the stage for what can be provided locally, and the franchisee generally cannot afford to evolve to a more service-centric, digitally enabled market model.

Although Kinko's is not a franchise operation, it is included because it serves similar markets. While Kinko's emphasizes the corporate market and the ability to do on-site, near-site, and virtual facilities management, the majority of its business is still centered on a retail market model. The company's primary business volume is derived from business cards and stationery; short-run copying and printing of flyers, newsletters, presentations, and brochures; and finishing. The corporate location has expanded offerings to provide users online access as well as DocStore, an easy-to-use online solution that enables users to create an online catalog

Market Segmentation Levels

of their companies' most frequently printed documents. The digital color investment in the local Kinko's store is limited to the copier and associated RIP.

Organizations like Signal Graphics made a decision to minimize the retail storefront investment and provide hubs for production in order to aggregate manufacturing capacity. Most quick printers don't produce every part of every product they sell. Much of it, from thermography to pocket folders, is brokered and completed on equipment not located at the facility.

Signal Graphics franchisees emphasize customer acquisition and retention rather than the ability to manufacture all things for all people. They have digital black-and-white copiers, a digital color copier, graphic-design computers, and bindery equipment, but more expensive equipment is housed at a hub in Denver. Their plan is to add packaging and shipping, as well as other services, to create a profitable business resource center.

Sir Speedy has extended its reach with an on-line utility for customers (www.sirspeedy.com) that averages more than 1.5 million hits per month. The Web site offers online proofing, credit card processing, and online reporting for major accounts. Sir Speedy recently released a new e-commerce solution, MyDocs, that accounted for more than 7,000 new customers in 2002. MyDocs lets users store frequently ordered documents in a secure online catalog for fast online ordering. Business cards, stationery, presentations, manuals, and brochures are electronically available 24 hours a day, seven days a week from anywhere, using a login and password.

Sir Speedy built a strategy for value-added services to assist franchisees in growing their businesses. Based on the diversity in the franchise network, Sir Speedy realized that one system or solution would not fit all franchisees. Franchisees have varying skill levels and financial resources. Within each service option, Sir Speedy, Inc., defined market models and differing levels of investment for participation. This

approach provides the franchisee with an entry point into the world of value-added services and a roadmap for scalability as their business grows and expands.

One of the key offerings for driving digital color is variable data. Sir Speedy Corporate defined three levels of variable data service that the franchisee could provide. At an entry level, the franchise location could get started with Darwin for an investment of \$495. Delivery of more complex versioned applications could be done utilizing a complete PrintShop Mail software suite for a little over \$4,000. If the franchise location wanted to migrate its service level to fully customized personalization, the recommendation was Pageflex Persona, which carries a higher price tag and increased capability. Based on skill levels and financial resources, initial investments are typically focused on mail merge applications.

LEVEL 1: IN-PLANT PRINTERS

An in-plant is defined as an in-house reproduction department operated within an organization, be it a company, a government office, or a university. According to market statistics published by *In-Plant Graphics*,² the average in-plant employed 22 people in 2002. The employees are responsible for taking in jobs from customers within the organization, printing or copying them, and coordinating their delivery. The typical in-plant includes duplicating devices, and prepress and bindery equipment. The majority of the in-plant's work serves the internal needs of the organization, although there are a number of in-plants that provide services to external firms (commonly referred to as insourcing).

Because the in-plant doesn't compete directly with other in-plants or commercial printers, the key value proposition it delivers to the organization is the ability to produce work more inexpensively than commercial printers, thereby saving money for its organization. There are more than 10,000 in-plants in the U.S. today with varying levels of investment in technology.

Market Segmentation Levels

Typical services, as identified by *In-Plant Graphics 2002 Market Statistics*, are as follows:

Service	Percentage of In-Plants
Bindery	98.5%
Offset Printing	89%
Copying	88.6%
Digital Printing	87.8%
Prepress	81%
Design	67%
Mailing	49.5%
Copier Management	43.6%
Fulfillment	26.4%
CD-ROM Output	21.6%
Copyright Permission	16.5%
Internet Services	12.5%
Data Center/IT Printing	10.3%
Video	4.8%

Source: *In-plant Graphics Market Statistics*; Survey of 273 In-plant locations in the U.S.

Market Segmentation Levels

The typical application mix for the in-plant market is as follows:

Product	Percentage of respondents
Newsletters	93.4%
Brochures	92.7%
Stationery	86.1%
Business Forms	85%
Reports	83.2%
Manuals	81%
Pamphlets	81%
Envelopes	79.9%
Business Cards	75.8%
Posters	73.3%
Direct Mail Pieces	68.1%
Tags/Labels	65.6%
Directories	64.8%
Proposals	58.6%
Annual Reports	56.8%
Calendars	55.3%
Pocket Folders	35.2%
Banners	34.8%
Signage	32.6%
ID Cards	31.5%
CD-ROMs	22.3%
Magazines	19%
Point of Purchase Displays	18.3%
Engineering Drawings	13.9%
Packaging	9.9%

Source: *In-plant Graphics Market Statistics*; Survey of 273 In-plant locations in the U.S.

The in-plant market is seeing demand for short-run color climb. Initial technology investments included digital color copiers, with primary suppliers being Canon and Xerox. The emphasis within the in-plant market is quality, speed, price, and convenience. Today, there is limited focus on infrastructure. Key software services include electronic file transfer; ordering, estimating and inventory management; proofing; and design, imposition, trapping, and preflighting. As noted in the *In-Plant Graphics* survey results, only 12.5 percent of respondents offer Internet services and 10.5 percent handle data-center/IT printing with variable data. The majority of in-plant operations respondents think that merging customer databases with production files has not been easy. Respondents from typical in-plants see variable data as difficult to implement and view it as having far less market demand than initially anticipated. The primary technology infrastructure emphasis is on file-transfer support for end users, digital color copiers, and RIP technology. The in-plant market, based on its need to service a multiplicity of end users, typically invests approximately \$0.30 on infrastructure for every dollar spent on digital color equipment.

However, this is starting to change. Georgia Perimeter College recently added an HP Indigo 1000, as did Duke University. Louisiana State University and the World Bank have added NexPress 2100 units to their equipment portfolio. According to Jane Bloodworth, business manager of the World Bank's Printing, Graphics, and Map design unit, "We're saving money by bringing external work back in-house. Much of the outsourced work is four-color newsletters, two-color catalogs and the bank's phone directory. We've already migrated most of our black and white work back in-house in the past few years, but now we wanted to bring in all the color work as well."

As in-plants start the migration to higher level production digital color, they will need to improve their infrastructure to support more advanced applications. Tim Steenhoek, head of Document Management at ING said, "Our goal is to stop having color pieces printed offset and then assembled into a kit after they are ordered. We want to start building the kits electronically and then print them digitally, saving

on outsourcing and labor cost. Within the next two to three years, we will unveil a 'digital storefront' where customers can request sales collateral online and have it personalized and printed at the time of the order."

LEVEL 2: COMMERCIAL PRINT—SHORT-RUN ON-DEMAND/MANAGING THE PRINT SUPPLY CHAIN

Traditional commercial print firms placed the initial focus for their digital color investment on short-run, quick-turnaround, on-demand jobs. Their emphasis was that they could deliver "virtual litho" quality with digital color technology. The primary offering is simple "replication" of the same image with the value proposition that digital color printing is cost-effective for runs of up to 500 A3 sheets (1,000 product sheets, 3,000 postcards, etc.). Online collation and two-sided printing allow the printer to run complete booklets or binders of multiple pages as fully collated "sets" delivered off the press ready for trimming and finishing. In addition, these companies have added online access to marketing support materials combined with a document database for repetitive print-on-demand capability. The objective is to become an integral part of the customer's supply chain for marketing materials.

For example, Barnaby Printing Services in DeKalb, Illinois, is a medium-sized printing company. They have been in business for over 40 years and offer a wide range of printing services, including everything from typesetting and design to producing four-color process brochures, which are run on either a Heidelberg or an HP Indigo digital press. Typical short-run color applications include postcards, invitations, menus, labels, and newsletters. They provide clients with online access. The infrastructure and IT resource requirements are limited for this business model.

Firms like Great Lakes Companies and Lavigne Press, once traditional commercial printers, have migrated into the world of digital color. They have blended short-run color with supply-chain management capability for sales support materials. LaVigne Press tells clients

Market Segmentation Levels

that they can offer “a whole new way to look at printed collateral.” The user can version, proof, ship, and track through an online system. The software provides online access to collateral 24 hours a day from anywhere. The requested materials can be printed on traditional offset technology or on LaVigne’s HP Indigo digital color press.

Great Lakes Companies has a system they have branded AKSESS. Through the AKSESS e-procurement solution, the company provides document management, kitting, fulfillment, and distribution. This supply-chain management system supported their traditional lithographic business. Great Lakes Companies purchased a NexPress 2100 in January 2003. In less than six months, the NexPress was running a shift and a half a day and delivering profits. Dean Hanisko, chief technology officer, said, “Our success with digital color can be likened to good farming. We had the soil, sunshine, and the right amount of rain. We had already developed the customer-facing applications to facilitate the process. Based on the range of traditional services we offer, Great Lakes has strong relationships with customers. We were providing them with everything but digital color. The addition of digital color was a natural. That is what made it happen (in terms of profitability) right away.”

The overriding value proposition for online print supply-chain management solutions includes content currency, inventory management, timeliness, and reduced inventory obsolescence. For the print service provider, integration into the supply chain means a substantial increase in customer loyalty due to the investment the client has made with the printer.

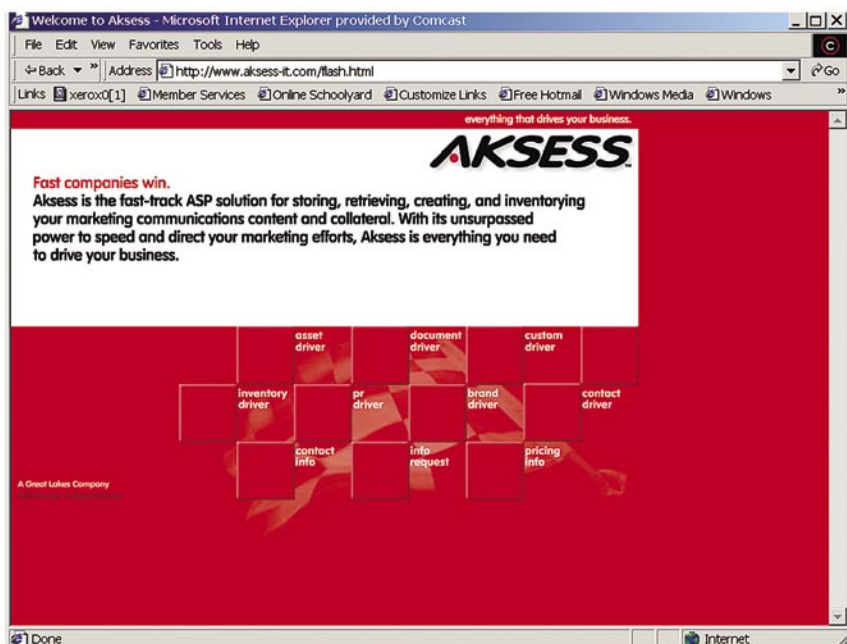
Based on the long-term history of these firms, there was significant infrastructure in place for finishing, fulfillment, and distribution. LaVigne Press worked with Printable Technologies to facilitate the customer-facing software, while Great Lakes Companies developed its AKSESS software internally. The assessment for printers in this market space was that for every dollar spent on equipment, an incremental dollar was required for additional infrastructure, including software and staff support.

LEVEL 3: INTERNET ON-DEMAND SERVICES

Internet on-demand services can be defined as a Web-to-print marketing tool that allows corporations to create high-value, customized marketing collateral, while reducing costs and maintaining brand image and integrity. These are systems that provide an easy-to-use browser interface that enables sales, marketing, and customer service departments to expand their capabilities and empower their teams to improve sales efficiency and effectiveness. Collateral can be customized to specific groups and then personalized with the recipient’s information provided in the dealer’s database, creating one-to-one marketing pieces. The focus of these systems is to engage local marketers in the creation of market-relevant content that links to market characteristics and nuances.

The key components of these systems include:

- pre-designed marketing collateral templates
- pre-approved images and text files
- Web development and hosting



Market Segmentation Levels

- free-type text areas
- contact address book
- online document proofing and approval
- PDF-to-Email and PDF-to-print output
- Web site administration tools
- content (image and text) management tools
- usage reports.

Fast-growing digital service providers are finding that this is a market model that really works. For example, Lexinet began operations over a decade ago, in 1991. Dan Adler and Lisa Boyer worked together creating, formulating, and perfecting multiple-dealer mailing programs for various companies. After years of consulting, both decided it was time they joined forces to establish their own company. Based on their direct marketing backgrounds and an understanding of technology, they had a clear vision for the company. They wanted to deliver “on-demand” direct-mail programs that were dealerized, personalized, and localized—for any number of users, regardless of their location—organized and managed through the Internet. They are using a combination of Xerox DocuTech and DocuColor equipment to produce materials. The model is paying off. In 2002, revenues were up 34 percent.

RT Associates realized that comprehensive marketing programs that put the power of customization in the hands of users of technology were key to future business expansion. Combining software from Saepio Agilis and the NexPress 2100, they developed a solution that engages local marketers in the creation of relevant marketing content. United Stationers, the largest wholesale distributor of business products ranging from office supplies to furniture, looked to RT Associates as a partner in the development of their direct-marketing and sales-collateral management program called “Star Club.” In developing the Star Club program, United Stationers realized that deal-

ers were too busy with daily business operations to create direct-marketing programs. Whether they were a small, family-run business or a \$250-million-per-year dealership, resellers needed a way to produce timely, affordable, personalized, and customizable marketing materials. RT Associates delivered a Web-based solution that gave dealers the ability to produce one-to-few and personalized materials at a local level. It is applications like these are contributing to a 23 percent year-over-year growth rate for RT Associates.



Market Segmentation Levels

To support this level of application development, these firms invested heavily in infrastructure. In most instances the firm spent a minimum of \$2 on technology infrastructure and support for every dollar they invested in digital color technology. Programming resource was essential to success. A minimum of 10 percent of the employees in these firms had IT backgrounds.

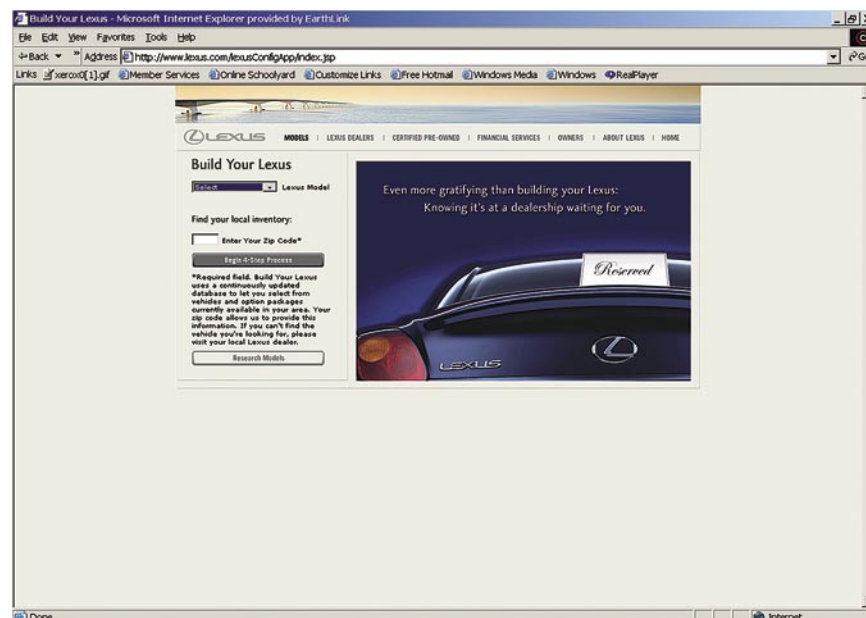
LEVEL 4: FULLY CUSTOMIZED COMMUNICATIONS

These service providers support their clients' CRM initiatives. They have the ability to build documents that include variable text, pictures, graphics, and barcodes and to merge data. Using conditional logic, a dynamic document is created in which the entire layout varies with the input. The result is a document designed for the individual recipient. (For example, if the recipient is female and over 30 years of age, insert paragraph 1 and graphic 3; if the recipient is male and less than 45 years of age insert paragraph 12 and image 5, etc.)

These service providers have invested in high-speed digital color print technology as well as the infrastructure to provide electronic distribution. This enables them to publish documents

as printed pages and/or as e-mails, Web pages, PDF documents, SMS messages, XML files, and faxes. Their value proposition is maximization of the return on marketing dollars. In addition, they often provide consulting services such as data mining to help clients find the most appropriate target segments.

Salt Lake City-based Rastar Digital Marketing has targeted the automotive industry with great success. They are working with auto dealerships on both customer acquisition and retention programs. Through data mining, Rastar helps dealerships identify "high-profit" customers residing in their primary market area and builds a communications program that reaches them one by one. They produce three personalized full-color pieces over an eight-week period to drive traffic into the dealership. These communication pieces introduce the dealership to the prospect and offer them current service specials along with a special incentive to those currently in the market for a new vehicle. As soon as a prospect responds or comes to the dealership, they are immediately enrolled in a one-to-one marketing program. The mailings are Internet-template driven, so the dealership can add unique information about their specific location, including text, photos and special offers. Once the prospect is converted to a customer, Rastar works with the dealership on customer retention. The customer retention program



Market Segmentation Levels

incorporates service offerings as well as incentives for purchase of the next car at the time of lease expiration or at the time the dealer feels the customer will be in the market for a new vehicle. Rastar Digital Marketing has leveraged HP Indigo technology to produce these high-quality, variable-data campaigns. Blending Internet services, comprehensive data mining, and variable data has also had a strong impact on Rastar's earnings—2002 was a year of double-digit revenue growth for the company.

Prudential is a key customer for Royal Impressions. A critical component of its business is success with 401(k) plans for large corporate clients. A 401(k) plan is designed as a salary reduction plan tailored to medium-to large-sized businesses. With a 401(k) plan, employees may contribute a percentage of their salary each year. Because contributions are made with pretax dollars, participants can enjoy immediate tax savings; they don't have to wait to file their tax return in order to receive the benefit.

Facing challenging financial markets, Prudential was looking for marketing techniques to increase its base of corporate 401(k) clients as well as help existing corporate clients maximize employee participation. Prudential worked with Royal Impressions to develop a solution in full color that was personalized to each individual, producing an application that combined personal information relative to individual income, age, and marital and family status with a recommended contribution by the individual employee. The full color communications meant that the reader had a much easier time comprehending the information. Royal Impressions then mailed the document to the individual's home on behalf of Prudential. This application was especially challenging to produce because it required 100 percent accuracy. The information was highly confidential, and there was no room for error. Royal Impressions needed to prove to Prudential that they were the supplier that could be trusted to do this right.



¹ Quick Printing Magazine, April 2003, Annual Franchise Review by Karen Lowery Hall

² In-Plant Graphics 2002 Market Statistics from www.ipgonline.com

Market Segmentation Levels

The benefits to Prudential were significant. First, based on the customized approach, Prudential attracted new corporate customers. Secondly, for Prudential's existing corporate customers, employee participation increased. This is particularly important based on the increased contribution limits that started to take effect in 2002. Contribution limits for 401(k) plans were increased to \$11,000 in 2002 (and will increase \$1,000 each year thereafter until reaching \$15,000 in 2006). The employee contribution limit will be adjusted periodically for inflation after 2006. Beginning in 2002, an additional "catch-up" contribution was available to individuals age 50 and over. Capturing these additional employee contri-

butions based on the changing legislation was important for Prudential's long-term growth. Applications like this have generated double-digit revenue growth for Royal Impressions.

As application complexity climbs, so does the cost of the implementation. Firms delivering applications at the highest levels of complexity indicated that for each dollar they spent on digital color equipment, they spent \$2.00 and \$3.50 to support the application. These firms needed to have programmers on their staff. They also were investing in marketing specialists who would "talk the talk" of the corporate marketing executive.

Key Findings

The firms that were typically delivering Internet on-demand applications and fully customized communications were relatively new to the world of printing and publishing. They were firms that had a vision and adequate funding to deliver that vision. The investment in infrastructure clearly delivered results for these firms. The following key market trends emerged in the examination of the higher levels of infrastructure investment:

1. The average level of investment across all firms surveyed demonstrated that for every dollar they spent on digital printing equipment, they spent \$1 on infrastructure, including networking, software, server technology, and support. The fastest growing establishments had the highest levels of investment in infrastructure. These firms had a strong Internet infrastructure and were focused on delivery of either Internet on-demand services or fully customized communications.

Firm	2002 Annual Growth	Ratio of Technology Infrastructure Investment to Equipment
RT Associates	23%	3.5:1
Digital Marketing Inc.	30%	2:1
Lexinet	34%	2:1
Royal Impressions	41%	2:1
Mimeo	100%	3.5:1
PsPrint	50%	1:1

Key Findings

2. The firms interviewed also realized that information technology was becoming a driving force in the world of printing and publishing. Across all firms interviewed, IT professionals comprised 8 percent of the total employee base. Firms that had implemented an Internet on-demand or fully customized communications model had the largest number of IT professionals.
3. The average digital color monthly print volume was significantly higher for those firms that had implemented an Internet on-demand or fully customized communications model. Monthly impression volumes exceeded 1 million for those firms with a combination of good infrastructure and a solid base of IT professionals.

Firm	Number of Employees	% of Employees with IT Focus
RT Associates	62	10%
Digital Marketing Inc.	65	20%
Lexinet	40	32.5%
Royal Impressions	50	22%
Mimeo	95	12.6%
PsPrint	56	17.9%

WHAT DOES THIS MEAN TO THE PRINTER?

Print service providers, regardless of the business model, have the ability to make digital color profitable for their organizations. As printers evaluate the technology, they need to consider some issues:

1. The target market and application mix need to be clearly identified. The printer can then assess the real level of investment required to meet the needs of that market.
2. There is value in all four digital color business models. Quick printers and in-plants deliver convenience, fast turnaround, and quality color. The supply-chain management model emphasizes taking process cost out of collateral production. Internet on-demand service providers are moving the power of personalization into the hands of the agent or franchisee while protecting the corporate brand. Fully customized communications are yielding marketing ROI. Print service providers can migrate up the value chain over time as part of their overall strategy, ultimately deriving greater revenue streams from more advanced services.
3. The higher revenue growth potential is linked to expanded service levels that integrate database supply-chain management, Internet customer-facing applications, and customization of documentation. This requires support infrastructure and appropriate IT staffing. There are also some application-service-provider (ASP) solutions and systems-integration-service options to facilitate implementation.

ASP's are third-party entities that manage and distribute software-based services and solutions to customers across a wide area network from a central data center. These range from companies like TotalWorks and JG Sullivan Interactive to PrintCafe and Printable.

HOW CAN EQUIPMENT MANUFACTURERS HELP?

Equipment manufacturers need to do a better job in helping print service providers understand what it takes to make digital color profitable. It is time to quell unrealistic market expectations of easily attained success. Digital color isn't simple; it takes hard work, expertise, and an infrastructure to deliver growth.

The vendors need to take the following actions:

1. Stop discussing the cost per sheet and start talking about the pathway to profitability.
2. Deliver easy implementation tools to assist customers with more advanced applications including ASP options that give printers the ability to "rent" infrastructure.
3. As part of the sales process, make sure that the customer has a business plan that reflects the "true costs" of building a successful business.

The market is ready for digital color. Successful users like Rastar Digital Marketing, Lexinet, Great Lakes Companies, and others have proven that there is real profitability associated with digital color if it is properly implemented to meet the needs of customers and aligned with the capability of the digital service provider.

Case Study 1: Great Lakes Companies

DRIVING DIGITAL COLOR PROFITABILITY—QUICKLY!

Great Lakes Companies of Cleveland, Ohio, has always been a leader in the printing and publishing industry and has a history of embracing new technology. They are now at the forefront of digital color with their acquisition of a NexPress 2100 in January 2003. The unique aspect of the installation of the NexPress 2100 at Great Lakes Companies is the speed with which they established a clear “pathway to profitability.” The NexPress 2100 is running a shift and a half a day and producing two hundred fifty thousand 12” x 18” duplexed documents monthly.

After hearing from several organizations about the complexity of building a digital color business, the Printing Industry Center at RIT wanted to understand what made Great Lakes Companies different. Chief Technology Officer Dean Hanisko provided the answer. He said, “Success with digital color is like the creation of a fine bottle of wine. You need the right amount of sun and rain and good soil. Great Lakes Companies has been in business a long time and has strong customer relationships. We also built a tremendous digital infrastructure with our AKSESS digital asset management system to make it easy for clients to work with us. Digital color was a natural addition to our portfolio of offerings.”

AKSESS—FACILITATING BUSINESS GROWTH

Great Lakes Companies of Cleveland, Ohio, acknowledged both customer demand and business benefit in the implementation of AKSESS. Great Lakes Companies has always been a leader in the printing and publishing

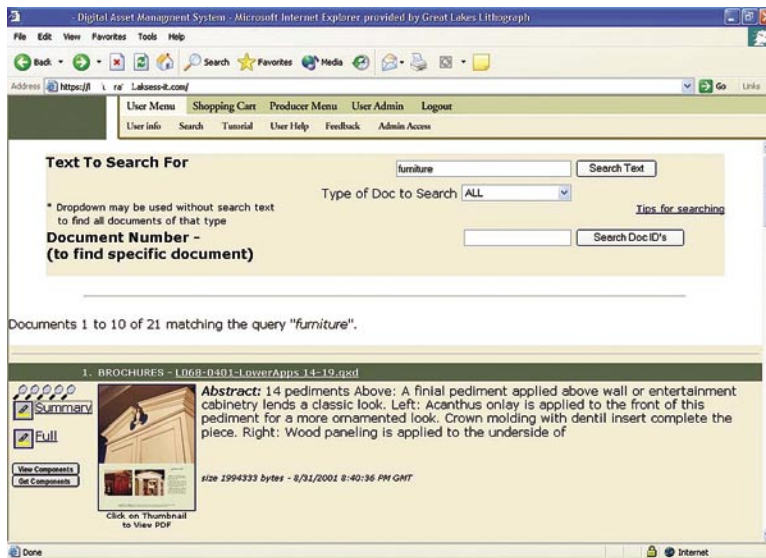
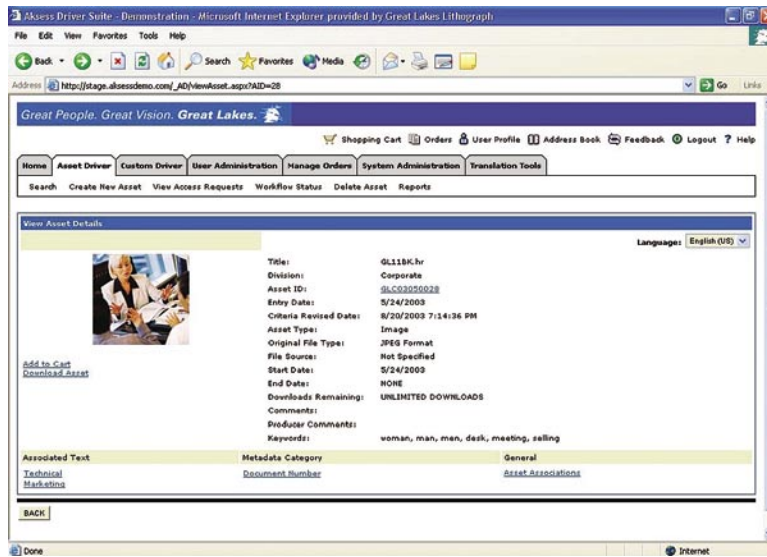
industry and has a history of embracing new technology. Joseph and Elsie Schultz founded the company in the 1930s during the depression. Leadership passed from Joseph to his son George. Today, Jim Schultz is the president and CEO.

This company has thrived on innovation since its inception. Great Lakes Companies was an early adopter of seven-color press technology, of desktop publishing systems, and of pre-media services for customers. They are now at the forefront of Web-based supply-chain management. The key principle that drives the implementation of new technology for Great Lakes is customer need. Whether it was the purchase of a new press or a software solution, the core philosophy at Great Lakes is, “Everything is driven by our customers.”

The development of Great Lakes’ e-procurement system was no exception to this mantra. Between 1997 and 1998, Great Lakes Companies established a users’ group of noncompeting customers called the “Digital Widgets Users’ Group.” These sessions provided the company with tremendous insight into customer issues, concerns, and challenges. Hanisko indicated that some critical needs became apparent in this dialogue. “The customers wanted digital asset management – they wanted everything in one place – they wanted to maintain brand consistency and they wanted to eliminate the redundancy in image creation, including photos and graphics.”

Great Lakes looked at these emerging customer needs from two perspectives. They identified primary users – the content creators who wanted a solution for maintaining high-resolution images. But they focused equally on secondary users – field sales representatives, manufacturers’ representatives, and agents who needed

Case Study 1: Great Lakes Companies



documents and images for PowerPoint presentations and proposals. These are the actual consumers of content.

The result of their analysis of customer needs was the introduction in late 2000 of a system called AKSESS. This system was developed as an ASP model, and is composed of four key elements.

1. **The Asset Driver**—Module stores and manages all of the client's digitized images, text, and video and audio clips. They are securely stored, organized, and formatted so that clients can retrieve whatever they need by product name, description, model number, or any other descriptor specified. Clients benefit by having immediate access to their brand-building assets which have already been approved for both content and color. The image to the left depicts a typical screen that a customer might view.
2. **Document Driver** was designed to store completed documents and their supporting graphic elements in a central database. Users can search all of their digitized documents by any descriptor they specify. In response, the system provides a summary of the query, a thumbnail of the document, a PDF for downloading, a link to the components, and the original application file, as indicated in the image below. The client has immediate access to documentation and can identify all documents requiring revisions, should there be changes in a product line.
3. **Custom Driver** focuses on empowering field personnel to create location-specific documentation while maintaining the consistency of the corporate brand message. Through a user-friendly wizard, users can retrieve location-appropriate images, add a personalized message, and insert them into centrally created templates.

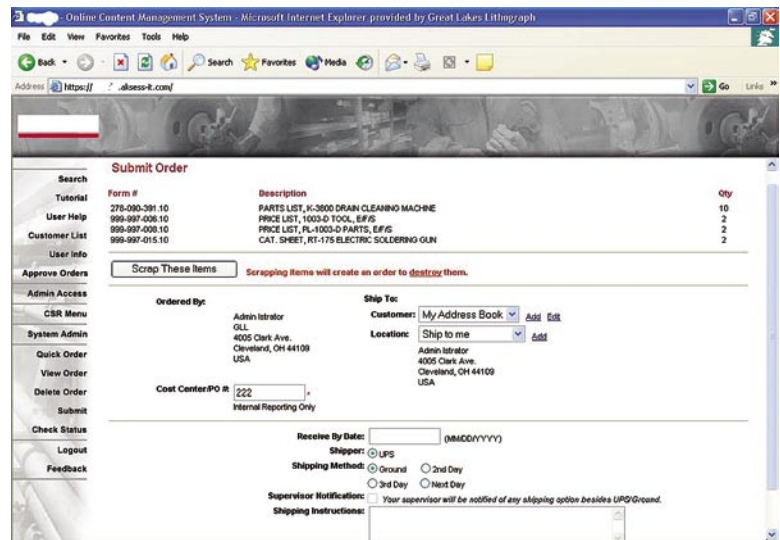
Case Study 1: Great Lakes Companies

Clients like the system because they have the ability to provide extra value to their channel partners through a powerful co-op advertising tool while still controlling the brand image.

4. **Inventory Driver** is linked to fulfillment operations. It allows clients to check inventory levels, order items from inventory, and request shipping. Like all of the AKSESS system, Inventory Driver has 24/7 availability. This gives users real-time control over warehoused marketing materials and collateral assets, as shown at right.

While the customer benefits are significant, so is the return on investment to Great Lakes Companies. Through the AKSESS e-procurement solution, they have transitioned their relationship with customers from that of a printer to that of a true business partner. They have expanded services to include more than merely print. They provide digital-asset and document management, kitting, fulfillment, and distribution. This blend of service capability made digital color a natural fit in their business model. The bottom line is that e-procurement, combined with full service (including digital color), equates to a loyal customer base that is directing an increasing share of their document-delivery business (whether in print or electronic form) to Great Lakes Companies.

Jim Shultz, president and CEO of Great Lakes Companies made the decision to invest more than \$1.5 million in AKSESS at a time when the printing industry was economically challenged. He saw it as an investment in differentiation and future profitability. The system requires ongoing technical support. Hanisko has four full-time IT professionals and four customer-support personnel managing the technology. He also uses external programming resources for major system enhancements.



INFRASTRUCTURE DRIVES DIGITAL COLOR SUCCESS

Great Lakes Companies is a perfect illustration of what it takes to reach digital color profitability. They offer the infrastructure to support customers who are trying to save money by more effectively managing their printed material supply chain. The messages are clear. To drive digital color profitability quickly requires more than an equipment investment. It requires application infrastructure and a digital customer-facing capability. Success will be based on more than just digital color printing. A complete product portfolio blended with the right services is driving on-demand color at Great Lakes Companies.

Case Study 2: Lexinet— Turning Data into Dollars

BACKGROUND— IT STARTED WITH A CLEAR VISION

Lexinet began operations over a decade ago, in 1991. Dan Adler and Lisa Boyer had worked together creating, formulating, and perfecting multiple-dealer mailing programs for various companies. After years of consulting, both decided it was time they joined forces to establish their own company. Based on their direct-marketing backgrounds and an understanding of technology, they had a clear vision for the company. They wanted to deliver “on demand” direct-mail programs that were dealerized, personalized, and localized – for any number of users, regardless of their location – to be organized and managed through the Internet.

FINANCING A NEW BUSINESS

Dan and Lisa realized that the implementation of this vision would require external funding, and that meant the development of a solid business plan that could stand up to the scrutiny of the investment community. While the initial plan was to start the business in Kansas City, there were federal block grants available for new business development in Council Grove, Kansas – just a few miles away. After spending a year developing their business plan, Dan and Lisa applied for and received federal block grants and opened Lexinet’s doors in Council Grove.

BUILDING THE BUSINESS

The driving force behind Lexinet’s business model was development of the software support infrastructure that would enable their clients to efficiently and effectively deliver the most



relevant messages to customers. Critical to their offering was enabling companies to compose their own mail pieces from a variety of existing templates written to customer specifications. Lexinet then provides clients with the ability to create mailings with high resolution and unlimited variables – both text and images – to customize and personalize direct mail messages. Lexinet maintains the workflow that seamlessly integrates with its customers’ organizations, ensuring that customers are able to initiate mail campaigns flawlessly, 24/7.

The first step in the evolution of the business was software development. Lexinet developed a proprietary software system called CONTACT. It is a multi-option, multi-variable, multi-location, personalized mailing system. The software was Lexinet’s differentiated value-added service for building a profitable business. According to Dan, “No investment was made in print technology until the software was complete and we had an identified customer base that would generate ample revenue to make the monthly payments on printing equipment.” The company’s first laser print technology, a Xerox 4650, was used to produce customized mailers that combined offset-printed shells with personalized messaging.

Dan kept close tabs on developments in print technology. He saw tremendous opportunity with the Xerox DocuTech. Adler stated, “The ability to integrate high quality photo images into direct mailers for key target markets including insurance and real estate offered significant new business potential. DocuTech’s ability to print on 11” x 17” paper opened up

Case Study 2: Lexinet



the market opportunity for custom newsletters. In addition, the migration to industry standard workflow made the transition to digital color much easier.” Today, Lexinet has multiple Xerox 6100s, a DocuColor 2060 and 6060, and a DocuColor 12 in its equipment fleet. They are evaluating the potential installation of iGen3 technology.

THE DATA MAKES THE DIFFERENCE!

According to Adler, “It all starts with the data. The biggest challenge clients have is developing a simple mechanism for leveraging data for targeted mailings.” While Lexinet offers a full portfolio of digital services, its customers place the highest level of value on the company’s ability to manage and manipulate database information. Lexinet has developed several unique methods and systems to handle all kinds of files, from some of the most sophisticated relational database files provided by large data centers to the more common basic formats generated by users from their PC desktops.

Lexinet also maintains a complete database of all U.S. households through a license agreement with a national compiler. With advanced

data-processing capability, the company is able to blend these lists with clients’ customer and prospect lists. This means that users have quick access to an extensive database for targeted promotions.

Lexinet can import or export information to and from any platform, from mainframe to PC, from magnetic tape to diskettes and CDs. File enhancements and data hygiene capabilities include PAVE/CASS Certified Postal Software, address standardization, NCOA, gender coding, and name splitting. The company utilizes the most common printer language files, including Postscript, PCL, TIFF, PDF, and ASCII text. If a client requires data entry of raw typed or hand-written addresses, that service is also provided.

This state-of-the-art data-processing and warehousing capability is combined with custom programming, creative service support, digital printing, mailing and fulfillment, and detailed analysis of campaign effectiveness to round out Lexinet’s unique portfolio.

COLDWELL BANKER— CUSTOMIZED MARKETING PROGRAMS THAT WORK

One of Lexinet’s leading clients, Coldwell Banker, wanted to offer its brokers a turnkey “just-listed” / “just-sold” program. The objective of this program is to let people in various neighborhoods know which brokers are having the most success selling properties, so brokers can attract additional listings. The program had to be flexible enough to accommodate those agents wishing to have highly customized pieces, yet still be cost-effective with fast turn-around time. Services went way beyond printing. Lexinet provided a standard template that protected the Coldwell Banker brand identity. The template needed to be flexible as well. There was a requirement for standard text options from which agents could select as well as an option that let them craft their own copy. The application also had to be easy to use, since agents didn’t necessarily have a high level of computer literacy.

In some instances, the agents wanted to upload their own lists for mailing. In other cases, Lexinet became the list provider, generating mailing lists selected in a radius around a target address. The agents could also provide specific streets for which they wished to have mailing records selected by Lexinet. The mailer was designed so agents could incorporate personal information, including a photo. If there was any problem with the lists or application, Lexinet responded to those issues with the highest levels of customer service.

THRIVENT— ENSURING SUCCESS

Lexinet also provides a comprehensive direct-mail program for Thrivent's insurance agents. Thrivent wanted to provide the field sales force an on-demand direct mail program to generate new sales or cross-sell different insurance programs. They required flexibility, versatility and timeliness, but wanted to ensure that corporate headquarters could tightly control information being distributed to customers and potential customers. Lexinet set up an extensive menu of messages, formats, and postage classes from which representatives could choose. The personal sales rep information, including photo, scanned signature and titles, could be incorporated into each mailing piece. Because sales reps had varying levels of access to technology, Lexinet offered multiple channels through which to place orders – phone, fax, mail, and intranet – and provided three-to-five-day turnaround times for direct-mail requests. There was also a need for agents to be able to communicate with the corporate marketing department on all field activity and on-going analysis of the business results.

The Coldwell Banker and Thrivent applications represent two of many dealer/agent solutions that Lexinet provides to clients, leveraging a full document services portfolio and the company's digital print technology. According to Adler, "The critical success factor is putting the power of customized direct mail into the hands of the individual closest to the customer. Dealers, agents, and franchisees are all looking for ways to differentiate their messages on a local level."

Just Listed

**89 Jeremy Court
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Custom Expanded Center Hall Colonial, set up on a hill with magnificent views. Four Bedrooms, 2 1/2 Baths, Hardwood Floors, Master Bath with Whirlpool Tub, Basement, Circular Driveway and Professional Landscaping.

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103346 89 Jeremy Court

THE SALES PROCESS

With their direct-mail backgrounds, Dan and Lisa realized that selling direct-mail programs was a complex endeavor. Rather than build a large direct sales force, their focus has been on educating creative agencies about how new technology can reengineer direct-mail campaigns. They share with agencies the benefits of both a dealerized, personalized approach and the unique hardware and software technology Lexinet has to support the implementation effort. Lexinet becomes a consultant to the agency for direct-mail campaigns. This sales strategy has worked well for Lexinet, with 2002 revenues climbing 34 percent.

THE BUSINESS MODEL

Implementation of customized programs required significant technical resources. Lexinet has one third of their personnel dedicated to database administration, web programming, and creative services. When asked how he recovers the cost associated with the staffing resources, Dan said, "Our customers understand the value we bring. Every program is different, but the marketing executive knows that programming isn't free. We have established a setup fee for getting the program up and running. This will vary with the complexity of the program. There is a monthly fee for hosting the site and customer support. Finally, there is a base package charge for mailing each piece."

Case Study 2: Lexinet

THE REAL INVESTMENT

When Adler was asked about the infrastructure to make digital color successful, he stated, “We have spent more than \$300,000 on the development of proprietary software. For every dollar that I spent on Xerox equipment, I have invested \$2 in infrastructure. That includes new server systems, IT management and custom and standard software.” Adler will also tell people that the investment has been worth it. Lexinet’s revenues were up 39 percent in 2002 and projections for 2003 are a 32 percent year-over-year increase.

LESSONS LEARNED

Lexinet is a perfect illustration of a company that took the right steps in building a digital business. They focused on a value proposition where data was “king,” helping clients construct the data, provide user access to the data, execute the program, and analyze results.

1. The business was started with a clear vision and a solid business plan. While funding was a challenge, there was a clear strategy to secure the appropriate funds to execute the business model. Their solution is dealerized, personalized, and customized, providing maximum control to the end user.
2. The development of a database and data-driven model provides a strong, long-term, annuity-based relationship with clients. This model makes switching costs extremely high. For Lexinet, it provides a predictable business model with a good view of print volume and resource requirements.

Lexinet is delivering a full-service model with differentiated value-add, from the Internet order-entry user interface to distribution to the end customer.

Case Study 3: Mimeo

BUILDING APPLICATION SOLUTIONS FOR THE BUSINESS PROFESSIONAL

We recently had the opportunity to visit Mimeo and interview cofounder and chief strategist Jeff Stewart and CEO John Lyons. Mimeo is a start-up digital color organization that established a viable Internet on-demand digital color business with a focus on serving the needs of the business professional.

IT STARTED WITH A CLEAR VISION

In his life prior to Mimeo, Jeff Stewart, like most business professionals, experienced the challenges associated with having important business documents printed at a local copy shop. Sometimes pages were missing, the copy quality was frequently unacceptable; and turn-around time was not satisfactory. Stewart saw the potential of leveraging the Internet and providing an online service to business professionals for key business documents and presentations, blended with the highest levels of quality and service.

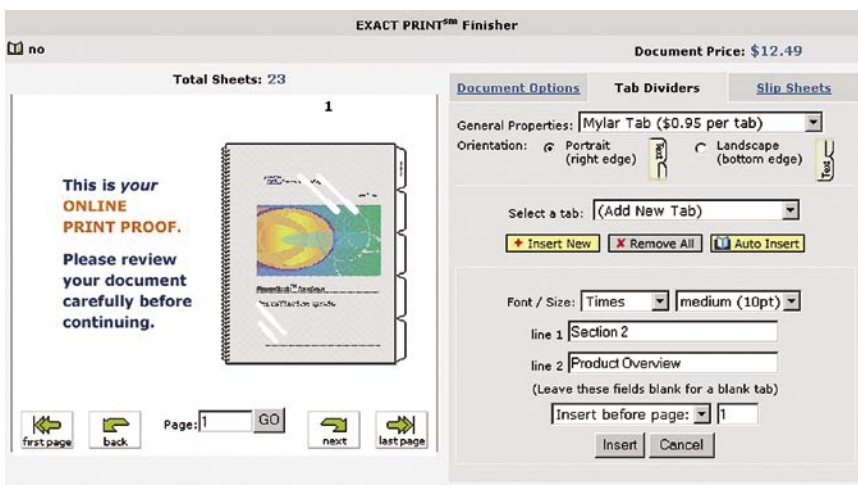
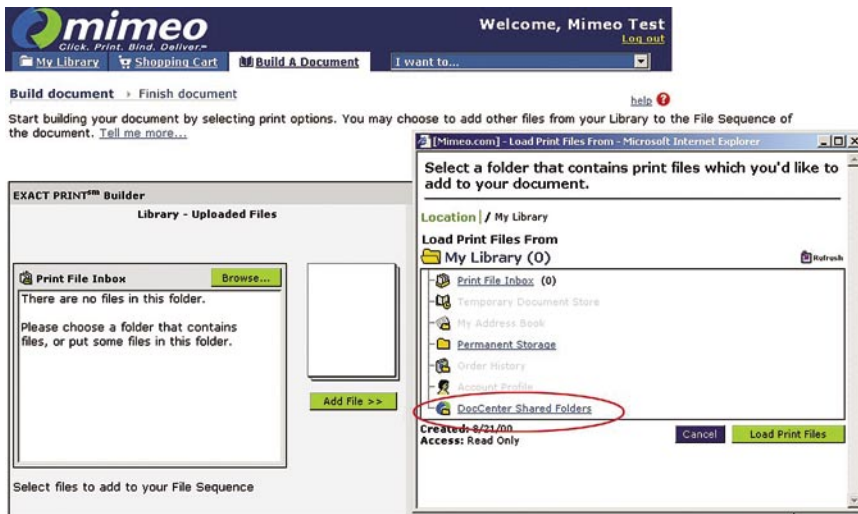
Mimeo is designed to let the business professional use the Internet to manage document production, from a short, stapled, black-and-white report to a large, bound, full-color presentation in whatever quantity is required. Documents are produced in a secure, dependable, convenient environment.

The company was founded in 1998 with its corporate headquarters in New York City and a document production facility in Memphis, TN, adjacent to the runway of FedEx's North American hub and UPS' Memphis shipping hub. The service was launched on February 3,

2000, offering digital black-and-white and color documents, full bindery service, and guaranteed overnight delivery for business executives, consultants, corporate trainers, and administrators.



Case Study 3: Mimeo



THE APPLICATION MIX

Mimeo's focus on business professionals and business documents positioned the company to "productize" its print offerings. Mimeo specializes in structured business documents including presentations, proposals, training documentation, and reports that can be tape, spiral, wire, or Velo-bound. Documents can have covers in white, light green, blue, gray, or be bound with a clear front cover. Jobs can be placed in a variety of different binders with tabs. Presentations can be three-hole punched or stapled in one or two positions. The firm's manufacturing line consists of a combination of Xeikon digital color technology and Xerox digital black-and-white cut-sheet equipment.

Mimeo is driving these structured documents into their production environment using proprietary software called ExactPrint™, the core of the patented Mimeo system. By installing Mimeo's print driver on any Windows-enabled desktop, a user can transmit files to Mimeo accurately and securely via the Internet. This gives a user the ability to print with the simplicity and comfort offered by the File/Print command found in most desktop software. ExactPrint lets users assemble very complex documents from multiple files, mix color with black-and-white pages, and insert custom tab dividers from any remote desktop workstation. Changes can be viewed on screen by using Mimeo's real-time document proofing technology. The limited document types combined with a streamlined workflow means Mimeo can process more individual short-run print jobs in a shift than a conventional provider could ever hope to do. According to John Lyons, "Our workflow is about outrageous efficiency. Our Memphis manufacturing facility is currently producing in excess of 2,500 jobs monthly with the ability to scale up." Mimeo produces more than seven million digital black-and-white and 900,000 digital color impressions a month on its three Xeikons and five DocuTech devices.

VALUE-ADD— TURNAROUND TIME PLUS FULL SERVICE

Print in and of itself isn't enough to satisfy users today. It requires the right application service support. Mimeo has segmented its services into three distinct offerings to satisfy its user population.

The first level is basic Mimeo service. With ExactPrint software, jobs can be submitted online. Users have 24/7 access to Customer Care Consultants for support. Lyons indicates, "Customer service is a critical priority for Mimeo. Because the user may have limited technical skills, we are staffed with support personnel that ensure that the Mimeo experience is a positive one. It is one of our critical differentiators in the market."

The second level of service is called Mimeo Professional, a library service for storing and organizing materials for more effective utilization by individuals. For a fee of \$49.95 per month, the user has access to 250 MB of permanent storage for materials that can be updated, versioned, and submitted for on-demand reprints.

The highest level of service is the Mimeo DocCenter. This tool set is designed to provide a secure, universally accessible workspace for sharing documents and other important materials with coworkers and clients. It gives Mimeo users the ability to collaborate. DocCenter has a Web-based catalog format with permanent storage. It provides a central location for all of the team's documentation. The system controls branding by setting access levels for ordering collaterals, manuals, training materials, and presentations. DocCenter is uniquely set up for each customer with annual fees ranging from \$6,000 to \$10,000, depending on the level of complexity of the individual implementation.

ORDER DETAIL


Questions about your order? Please call **1.800.Go.Mimeo** (1-800-466-4636).

Order ID: 00-0001-00005-04729

[Order History](#)

[Tracking](#)

[Re-Order](#)

Document Name	Configuration	Unit Price	Quantity	Cost
 Corporate Overview	<ul style="list-style-type: none"> - 19 Color impression(s) - 5 tab(s) - 6 slip sheet(s) - 32 sheet(s) of paper - Simplex printing - Clear/Black Vinyl cover - Black Spiral binding 	\$28.75	2	\$57.50
Document Subtotal:				\$57.50

Recipient Address	Delivery Information	Cost
Joe Johnson Overland Technologies 1800 Euclid Avenue 12th Floor Cleveland, OH 44115 United States	1 package(s) shipped using Priority Overnight will arrive by 10:30am, Mon, Jul 22	\$10.88
Delivery Subtotal:		\$10.88

Order Total	
	Subtotal: \$68.38
	Order Total: \$68.38

[Re-Order](#)

THE RIGHT RESOURCES AND INFRASTRUCTURE

Early on, Mimeo realized that the most critical component of the business plan was the right software infrastructure to deliver business results. John Lyons states, "While most traditional printers focus on the equipment cost associated with digital printing, our investment in equipment is relatively modest when compared to the investment we have made in infrastructure. We have spent between \$6 and \$7 million on the enabling technologies, while our equipment costs have been in the range of \$2 million. We also self-maintain our DocuTech print engines to minimize maintenance costs."

In addition, Mimeo has developed a strong software support team. Of the 95 employees, 12 are information technology professionals focused on software development and maintenance.

Case Study 3: Mimeo

A SOLID FUNDING MODEL

In July, Mimeo, Inc., finalized an additional financing round in the amount of \$5.5 million with new and existing investors. HarbourVest Partners, LLC, led this fourth round. Existing investors and insiders including Draper Fisher Jurvetson (DFJ) and Draper Fisher Jurvetson Gotham, the New York network affiliate fund of DFJ, contributed to the remainder of the round.

Mimeo has raised a total of \$45.5 million in capital investment since 2000 and is using the proceeds from the new round to accelerate growth and to expand into new target markets and application areas.

IT'S ALL ABOUT THE INTERNET ACCESS 24 HOURS A DAY, SEVEN DAYS A WEEK

One of Mimeo's primary focus areas is corporate training documentation. This is a print application area where documentation changes frequently, version control is important, and distribution to the point of need is essential. Mimeo is bringing to this market segment high quality, last-minute flexibility, online storage and retrieval, and Internet order-entry capability, 24 hours a day, seven days a week, to a wide range of locations. Clients like Perot Systems and Husky Injection Molding Systems are seeing the benefits relative to their overall training cost model. In a time when training budgets are tight, Mimeo is meeting the needs of training professionals.

THE BOTTOM LINE IS GROWTH

While we have seen the downfall of some of the dot com print providers over the last several years, Mimeo has both survived and thrived. According to Lyons, "Over the past three years, our sales have grown ten-fold as we continue to deliver a better, faster, smarter and less expensive way for corporations large and small to manage, print and distribute their critical printed documents."

Mimeo has leveraged the fundamentals of a solid business model, a good funding plan, and full service — the critical steps in achieving profitability — to a thriving business with a bright future.

Case Study 4: PsPrint

MAKING DIGITAL COLOR PROFITABLE

With tremendous emphasis being placed on digital color, people are still looking for the right market opportunity that yields profitability. Early on, vendors touted variable data as the key to this profitability. Everyone talked about “one-to-one” marketing as the next revolution in selling. The values of better response rates, improved ROI, and greater customer retention were all part of the marketing message to entice printers to buy digital color technology. The problem was that marketers could not see an adequate ROI due to the cost dynamics of digital color printing. In addition, corporate databases were far from accurate. Developing the data to deliver a “relevant” personalized campaign is still a significant challenge ten years after digital color presses first hit the market. Customizing a direct marketing piece to incorporate variable text, an image, graphics, and different “offers” based on the characteristics of the specific consumer is an elusive concept that has yet to bear significant fruit.

We had the opportunity to interview the principals of PsPrint, Drew Herzoff, founder and CEO, and Frank Young, president, to understand how they built a profitable digital color business. The company is ahead of the market in combining the best in Web and print technology with proven techniques to provide cutting-edge products and services.

The business started with Drew Herzoff’s vision of combining desktop publishing, printing and databases. While a student at Cal Poly, Drew was the alumni coordinator for his fraternity. He was an early Apple Mac user and learned how to leverage desktop publishing and data-

bases to drive donations for the fraternity. Through his early frustration with technology, he knew there had to be a better and easier way. The result was the formation twelve years ago of Post Script Press, Inc., a color separation trade house. Early on, Drew realized that the future of film would be short-lived, and in the third year of operation, migrated the business into short-run full-color printing with the acquisition of a Heidelberg GTO DI. In 1998, the company launched its first Web interface (www.psprint.com), allowing PsPrint to build a geographically diverse business that today is split equally between California and the East Coast.



Frank Young, president
Drew Herzoff, founder and CEO

The company’s unique business model was recently able to draw the attention of a San Francisco-based private equity fund, Sverica International, which completed an investment in Post Script Press, Inc. With the change in equity ownership, the company changed its name to PsPrint. The influx of cash will be used to foster continued growth.

Case Study 4: PsPrint

Today the company has 56 employees and operates three shifts six days per week, soon to move to seven days per week. PsPrint operates three Heidelberg Quickmaster DI Plus direct imaging presses and two Xerox DocuColor 6060s. For the past three years, the business has been largely driven by word of mouth and an innovative Web site. The model is clearly working: PsPrint has achieved 50 percent year-over-year growth and increased profitability each of the past three years.

WHAT'S DIFFERENT ABOUT PsPRINT?

The equipment mix at PsPrint is like a number of other digital color print service providers. The application base is one third flyers, one third business cards, and 15 percent postcards, with “other,” which includes stickers, posters, door hangers, table tents, posters, and banners making up the balance. “Other” is currently the fastest growing area of the business. However, PsPrint has a much different approach to the market than several of the digital color manufacturers that have been previously interviewed.

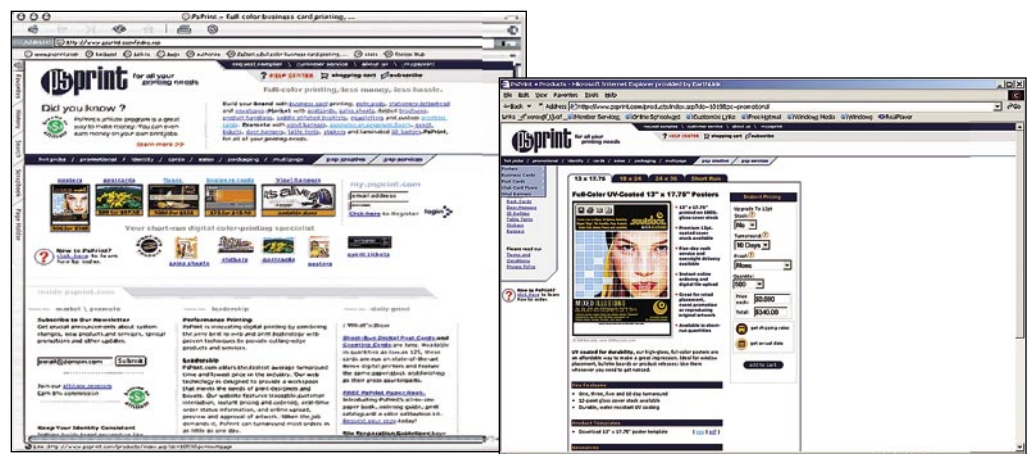
1. It's About Internet Automation

The focus at PsPrint has been on automation and using the Web to reduce transaction costs. The objective is to be the most cost-efficient producer of jobs from 250 to 100,000 pieces. PsPrint manufactures more than 4,500 custom jobs every month. The PsPrint customer service

philosophy is called transparent printing. The company has given its customers the ability to place an order online, and get instant pricing. It also provides real-time order status and online upload, preview, and approval for artwork. The user has access to documentation for every customer interaction. That includes order history, change requests, service promises, and deadlines – all interactive – all online. In my discussions with Drew, he said, “Our custom-developed systems are designed to put power in the hands of the customer. It is in PsPrint’s self interest. Through automation, we can cut the level of staffing required to do the work. That means lower costs to our customer base.” The other key point Drew made was, “If PsPrint couldn’t leverage technology to reduce cost, we would never be able to scale our business for growth. Using the Internet for Transparent Printing has enabled PsPrint to efficiently and profitably grow revenue.”

2. Maybe It's Business Development and Not Direct Sales

While we hear a lot about the importance of direct sales in the production digital color arena, PsPrint has grown its business through a best-of-breed Internet portal. The company has built its reputation through word of mouth about its state-of-the-art Internet site. Initial market success has been with the design community. According to Frank Young, “We built a Web interface designed for the savvy, recurring print buyer. While we want to appeal to one-off buyers, our overriding objective is,



and will always remain, to be the online printer of choice for the design community – the most sophisticated user in the market.” Fifty percent of PsPrint’s current customers are graphic designers who are making repetitive purchases.

PsPrint’s price/performance model makes it attractive to print alliance partners, as well as to the graphic design market. According to Young, “PsPrint.com offers the fastest average turnaround time and lowest price in the industry. This has helped us penetrate the reseller market. Approximately 10 percent of our business today comes through resellers.” PsPrint has also recently launched an affiliate marketing program to provide further incentives for resellers and graphic designers. Participants in the program receive an eight percent commission on jobs sold and produced, plus whatever additional mark-up they place on the print. They currently sign up two to three new affiliates every day.

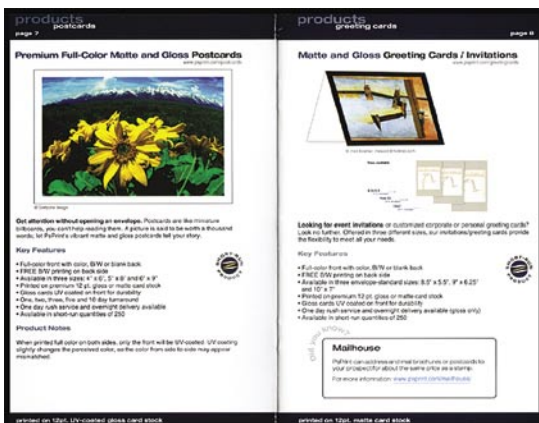
To expand its print affiliate base, PsPrint is developing customizable “skins”. This means that they are building custom interfaces for their print affiliates. If Joe’s Copy Shop establishes an alliance with PsPrint, an interface will be established so that Joe’s Copy Shop customers think that they are ordering directly from Joe. Specific jobs can be routed to PsPrint, while Joe’s Copy Shop can selectively print the projects that are most cost effective for their print shop to produce. PsPrint will be operating as a trade shop and infrastructure provider for the smaller print establishments. Not only will the company be providing print, but it

will also be acting as an ASP. In essence, ASPs are a way for companies to outsource some or almost all aspects of their information technology needs.

The balance of PsPrint’s business comes from the one-off print buyer. Frank indicated, “We have worked to make our Web-site more user-friendly and intuitive for the one-off print customer without jeopardizing our appeal to designers.”

3. It’s About the Right Equipment Mix—Digital and Offset

PsPrint productized a number of specific applications and established the right blend of equipment for delivering cost-effective, short-run color, which is categorized as “performance printing,” meaning that PsPrint will provide the right printing technology for the fastest, most affordable print for the customer. PsPrint provides ready-made design templates for products including business cards, posters, doorknockers, CD packaging, CD ROM business cards, envelopes, presentation folders, displays, and other custom printing products. PsPrint templates match existing dies and production methods, so that customers can economize. Drew says, “If you use our templates, there are no hidden production or setup costs.” The site is organized by application category (Promotional, Identity, Cards, Sales Literature, Packaging, and Multi-page) with drop-down menus for the specific attributes within each category.



Case Study 4: PsPrint

For quantities of 250 and below, work is typically produced on the Xerox 6060; quantities of 500 and above are typically directed to the Quickmaster DI. Applications are typically produced on a standard stock, but the user may be offered the opportunity to upgrade the stock based on the unique requirements of the job. This minimizes the amount and type of paper PsPrint must maintain in inventory. PsPrint does provide a 36-page book printed on the same paper stocks used to complete orders, should the user want variety in paper selection.

4. It's About Investing in Infrastructure

When making an investment in digital technology, the primary focus of printers is typically the price of the equipment and the operating cost. Drew's stated vision is somewhat different: "PsPrint is innovating digital printing by combining the very best in Web and print technologies with proven techniques to provide cutting-edge products and services." When asked to compare his investment in technology infrastructure with the cost of the equipment. His message was, "For every dollar spent on equipment, PsPrint has spent an equal amount on software and support infrastructure. I have an information technology specialist for every six people I have in production. It isn't just about print technology – it's about making print technology work profitably."

5. It's About Full Service

PsPrint also realized that printing wasn't enough. They have complemented their Internet infrastructure and print operations with design services; project management of

variable-data applications (primarily mail merge today); and kit, fulfill, and mail print jobs for customers.

LESSONS LEARNED

PsPrint has established a solid business model that works. The proof is in the business results that reflect an excess of 50 percent year-over-year business growth, even in tough economic times.

- The company identified a target market and customer base for its offering. The initial focus was designers, and the offering has been modified to service print affiliates to drive volume without having to build a direct sales force. With its customizable "skins" offering, small commercial printers now have a tremendous option for establishing an application-driven Internet site.
- PsPrint is more than just a printer. The company is a value-added service provider offering users an array of capabilities from design to finishing and fulfillment
- The company has a balanced business model. Drew realized that to scale the business required external funding, and he identified an investor who could support his growth strategy.

PsPrint is providing best-of-breed Web solutions to move power into the hands of the ultimate customer.

Case Study 5: Sir Speedy

TRANSFORMING THE WORLD OF QUICK PRINTING

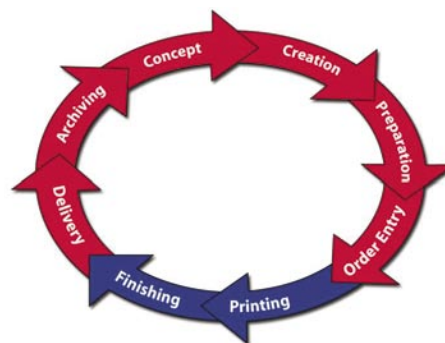
Print service providers have historically been defined by output technology such as commercial color, sheet fed, web offset, and large format. These print technologies by themselves can easily be commoditized. As the market begins to migrate to a digital infrastructure, print on demand—or POD—represents something far more interesting and important than technology for technology's sake. POD hardware and software offer the potential for new ways to communicate business information. The primary focus of successful users of POD technology is building a services portfolio and positioning their companies to provide “business communications solutions and services.” These users are looking at digital printing and the associated services as a way to de-commoditize printing and increase both profitability and customer loyalty.

One of the missing components in the business case analysis for digital printing has been the infrastructure investment to support the successful implementation of a document services model. Depending upon the print service provider's target market and application mix, the infrastructure investment can be substantially greater than the original investment for digital printing equipment. We had the opportunity to interview executives from Sir Speedy, Inc., to understand the strategies associated with their migration to a “business-communications-services” model in the quick-print market. The corporate headquarters location has made tremendous strides in taking the “mystery” out of the market models for value-added services for franchisees.

Sir Speedy, Inc., headquartered in Mission Viejo, CA, is the largest franchisor of printing, copying, and digitally networked centers. The Sir Speedy Global Digital Network, with its alliance partners, spans nearly 1,000 centers in 23 countries. The company is placing tremendous focus on expanding products and services beyond just output, although that continues to be their core offering.

IT STARTS WITH UNDERSTANDING WHERE TO ADD VALUE IN THE DOCUMENT LIFE CYCLE

Sir Speedy realizes that in order to build profitable sales, successful quick printers of tomorrow need to offer value-added services that complete their offerings. According to COO Dan Beck, “These services will build on the existing services to provide customers with greater convenience and flexibility.” To identify the right service mix, Sir Speedy mapped out the document life cycle from creation to archiving (as shown in the figure). They then developed a series of service offerings that could



Business Document Lifecycle

Graphic courtesy of Sir Speedy

Case Study 5: Sir Speedy

be mapped to each phase in the document life cycle, as depicted below. The overriding objective for these services was to work with the franchise network on solutions that would help them make money at any stage in the document's life, whether the final distribution is in paper or electronic form.

The result was a document services portfolio that includes scan-to-archive for document security, variable print to increase response rates on marketing materials, online document management that provides order tracking and reporting; fulfillment for assembly and shipping; and document distribution through the company's Global Digital Network.



Business Document Services

Graphic courtesy of Sir Speedy

Based on the diversity in the franchise network, Sir Speedy also realized that “one system or solution” would not fit all franchisees. Franchisees have varying skill levels and financial resources. Within each service option, Sir Speedy defined market models and differing levels of investment for participation. It provides franchisees with an entry point into the world of value-added services and a road-map for scalability as their businesses grow and expand.

A RICH PORTFOLIO MIX—THE SCALABLE OFFERINGS

Document Archiving and Retrieval is a service designed to help clients convert documents to electronic formats for ease of future access. The solution is defined as one that converts paper documents to an easy-to-read, search-and-retrieve format that allows customers to better manage and share information. Sir Speedy has identified multiple levels of implementation and varying investment requirements for franchise network participants. The simplest is to leverage the scanning capability of copying devices like the ImageRunner 105 and burn CDs for customers. The highest level of complexity is high-speed scanning and indexing of documents for storage in a central repository for access from anywhere.

Sir Speedy has extended the order-entry process with its MyDocs system. Using the MyCatalog component of Sir Speedy MyDocs, the user has access to online catalogs of their documents. All frequently ordered documents are stored in a secure online catalog. The franchisee will work with clients to create a free online catalog of all the documents that are ordered regularly. The customer will go to the SirSpeedy.com website, click on Order Online, and that customer's catalog appears. The customer will then select the desired document and indicate the quantity and any special instructions including finishing, shipping, and handling. This capability is especially important to customers who have multiple offices and want to print and distribute documents more efficiently.

Sir Speedy understood that 65 percent of all printed materials are mailed or shipped. Many documents become part of larger kits that get mailed or delivered to customers, employees, dealers, and distributors. Franchisees need to be positioned to offer an array of mailing and fulfillment services based on customer need.

Sir Speedy locations vary in their capabilities to support complex mailing and fulfillment projects. Sir Speedy has developed a business model for these services that includes basic first class and bulk mailings that require minor folding and labeling; assembly of documentation and inserting; and warehousing, fulfillment, and inventory management of both printed and nonprinted materials. Compliance with postal regulations is essential for optimizing mailings for significant automation discounts. To meet that requirement, Sir Speedy provides solutions for mail sorting. They also let clients use the Sir Speedy bulk mail permit. The ultimate objective for mailing and fulfillment services is to ensure that, across the franchise network, support is in place to help clients decrease the time it takes to deliver materials to their customers. The online ordering process associated with MyDocs allows for customization of each package, further decreasing setup and fulfillment time.

Over time, variable data will play a predominant role in service offerings. The theory and reality behind variable printing is this: The more personalized a direct-mail piece – the more targeted it is to the intended reader – the more likely it is to elicit a positive response. Sir Speedy Corporate defined three levels of variable data service that the franchisee could provide. At an entry level, the franchise location could get started with Darwin for an investment of \$495. Delivery of more complex versioned applications could be done utilizing a complete PrintShop Mail software suite for a little over \$4,000. If the franchise location wanted to migrate their service level to fully customized personalization the recommendation was Pageflex Persona, which carries a higher price tag and increased capability.

All of these services are combined with the power of the Sir Speedy Global Digital Network. They have centers in 23 countries around the world, giving the organization

unique document distribution capability. If a client has a proposal and a set of plans that has to be in Amsterdam the following day, they can access the Sir Speedy Global Digital Network. The local Sir Speedy franchise can work with the customer to prepare the documents for copying or printing and transmit them electronically to the Amsterdam Center. The customer doesn't need to worry about overnight delivery or whether the package will get through customs. It also eliminates costly shipping charges.

NOT JUST SERVICE DEFINITION, BUT IMPLEMENTATION SUPPORT

While it is easy to define value-added services, the challenge for printers today is putting in the right resources in place for effective implementation. This is where the Sir Speedy Corporate location is working to play a major role. They are providing a portion of the Internet infrastructure and tools like MyDocs. They have also developed an implementation support structure that the franchisees can leverage as they work to expand their “business communications services.” When franchisees decide that they want to broaden their offerings, they can contact Sir Speedy Corporate Headquarters for assistance. The corporate support team has developed implementation guides that define the levels of service and resource requirements for successful participation. One of the 12 field support representatives will then contact the site and conduct a survey to understand the customer base, revenue profile, and sales and technical infrastructure in place at the franchise. This data will be used to develop a custom document service plan for the site. This plan defines the investment level, sales process, and support requirements for successful implementation.

Case Study 5: Sir Speedy

BOTTOM LINE

CEO Don Lowe summed up the Sir Speedy Services strategy stating, “Printing is a dynamic field. It grows more so every day. The opportunities available are impressive, but they will take a lot of work to develop, more so than ever before. The players in this market that will survive and thrive will have much in common—they will have a strong brand; they will have close ties with their customers; they will have well-trained employees and a dynamic and aggressive marketing and outside sales program. And they will offer a broad range of

document-related services. Our brands will be among those survivors and we will continue to lead our industry.”

Sir Speedy has backed this strategy with more than words. They are focused on building the right infrastructure and implementation support to deliver results. Not only are they emphasizing a strong brand, but they are also working closely with the franchisees to deliver results. It is this type of holistic approach to building a services model that has positioned Sir Speedy as a quick- print market leader.



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