The Optimal Business Print Strategy

A look at the issues and approaches to better use of printers, copiers and fax devices in business.

Reduce costs and improve business processes through analysis, management and better deployment of these assets.

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Executive Summary

Businesses should become more aware of the cost of document output, implement new ways to move and store documents more efficiently and then manage the document output devices to meet business needs with the most cost-effective use of assets.

- Printing is costing more than you may think. It is important to manage document output strategically across your organization. Most enterprises today have evolved a printer strategy based on individual need, with little regard for the total cost of printing across the entire organization. By developing an Enterprise Print Strategy, companies are able to assess the true costs of printing and optimize the use of print devices – resulting in significant cost savings.

- The number of pages printed is actually increasing. Print is decreasing on copiers and facsimiles, while growing on networked and desktop printers. Optimizing the acquisition, use and management of these desktop/network printer assets is becoming more important as technology changes have led to greater amounts of printing on these devices.

- Most costs of printing are "hidden" costs associated with help desk support, user training, managing supplies and maintenance agreements. Most businesses regard these as a cost of doing business, rather than costs which should be managed and optimized.   In fact, only 5% of the cost of printing is acquisition, while 95% are these hidden costs. These hidden costs include help desk support, user training on varied devices, managing supplies inventory, managing multiple maintenance agreements, travel time to retrieve documents and upgrading technology to meet changing needs.

- Lexmark has found that by optimizing the remaining 95% of print costs by standardizing and implementing a corporate output management strategy, companies can typically reduce their cost of printing by 15% to 20% or more.

- Standardizing on one vendor for this range of devices can reduce costs, improve productivity and increase user satisfaction. Standardizing leads to reduced supplies ordering and inventory, device redundancy, fewer maintenance agreements, reduced user training, reduced help desk support cost, and lower cost technology upgrades

- No single approach provides the *best* solution for an optimized print environment – the needs of each enterprise, indeed each workgroup, determine what device configurations, support structure and acquisition strategy are appropriate.

- Organizations need partners to help them identify and deploy technology solutions that enable them to ***print, move and manage*** information more effectively and efficiently. Working with an expert who can manage parts or all of this important business function is often the most effective way to reduce the total cost of printing and streamline document processes.

The Need for an Enterprise Print Strategy

"Copiers, printers, faxes and scanners have never been an enterprise's top priority, but the costs to maintain separate fleets of output equipment are staggering . . ."
Gartner Group, Inc. 2001 Research Note

Most enterprises today have evolved a printer strategy based on individual need, with little regard for the total cost of printing across the entire organization. By developing an enterprise-wide print strategy, companies are able to assess the true costs of printing and optimize the use of print devices – resulting in significant cost savings.

## The Importance of Managing Print Across Your Organization

Synopsis: Printing is costing you more than you may think.

Printing is a significant business expense – typically greater than what most companies recognize. Gartner Group research shows the cost of printing to be between 1% and 3% of a company's gross revenue. This cost includes everything from outsourced offset printing (marketing materials, etc.) to volume production printing, copy and fax output, and desktop or networked printing.

Of this total cost of printing, acquisition is about 5%, while operation, support, maintenance and user time/productivity make up the remainder.
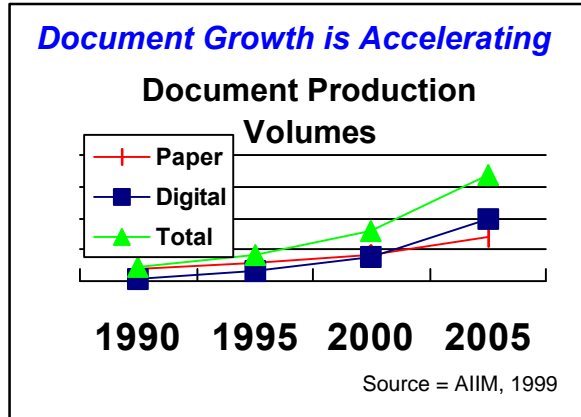
Office Print costs are about 20% of the total cost of document production; of that cost, 47% is associated with printers, while the remaining 53% is from copy and fax assets.

Synopsis: The number of pages printed is actually increasing. Print is decreasing on copiers and facsimiles, while growing on networked and desktop printers. Optimizing the acquisition, use and management of these desktop/network printer assets is becoming increasingly more important as technology changes have led to greater amounts of printing on these devices.

Document Production/Print Costs
1-3 % of Revenue

Off-site 47%
Centralized 33%
Office Print 20%

Print 47%
Copy/Fax 53%
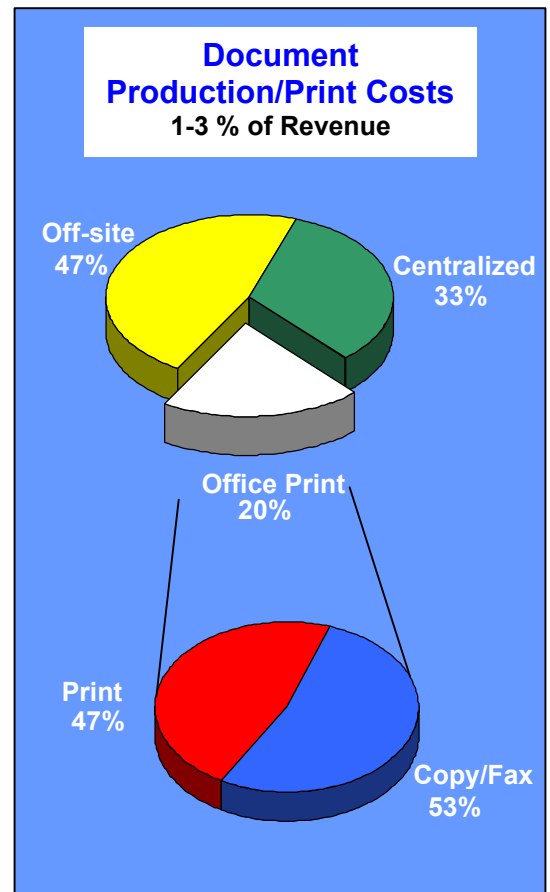
Fundamental changes in today's market are making desktop and network printers a more important component of your printing environment. Constantly improving technology has led to changes in the way information is shared in documents, such as:
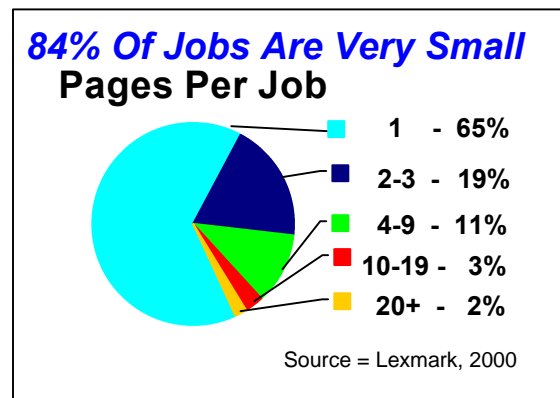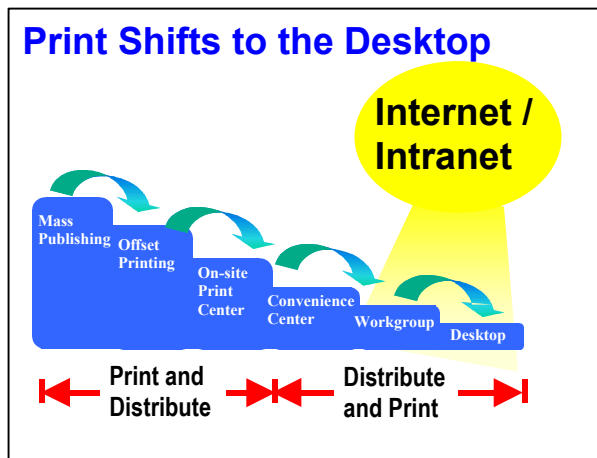
- Increases in electronic documents due to increasing use of computers and document creation software (i.e. Microsoft Word, Adobe Acrobat)

- Increased use of the Internet and e-mail

- Increased use of electronic forms

- Increased use of one-to-one marketing

Document Growth is Accelerating

Document Production Volumes

[Chart: Paper, Digital, Total lines across years 1990, 1995, 2000, 2005]

1990 1995 2000 2005

Source = AIIM, 1999

As a result of these changes in the way information is shared, total document production is increasing. Counter to the perception of the emerging "paperless office", the tremendous increase in the volume of information being created and distributed is actually causing more pages to be printed. Industry analysts Dataquest, IDC and CAP Ventures have all concluded that page volumes are growing at a compound annual growth rate of roughly 8%.

Xplor International:
- Overall, paper use is growing at 6% to 8% per year. Between 1995 and 2005, the number of printed documents is expected to more than double.

Gartner Group:
- 95% of documents are held in paper format
- Of those ⟹ 60% Internal / 40% External

Association of Information and Image Management (AIIM)
- 88 million sheets of paper are produced per $1 Billion of Revenue

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Print volumes are shifting "downward" from large production systems and copiers to desktop and networked printers. The days of training manuals and memorandums have been replaced with Intranets and e-mails. End users once printed a single set of originals and made multiple copies for distribution (Print-then-Distribute model). Today, the document is distributed electronically and recipients print single sets if needed (Distribute-then-Print model). Print job sizes are smaller, with 84% of all printed documents now three pages or less in length. Only 2% of printed documents are greater than 20 pages in length.

Print Shifts to the Desktop

Internet / Intranet

Mass Publishing
Offset Printing
On-site Print Center
Convenience Center
Workgroup
Desktop

Print and Distribute   **Distribute and Print**

84% Of Jobs Are Very Small
Pages Per Job

- 1   - 65%
- 2-3 - 19%
- 4-9 - 11%
- 10-19 - 3%
- 20+ - 2%

Source = Lexmark, 2000

Additionally, technology improvements are allowing more of the traditional "paper-to-paper" methods of creating documents to move to desktop and networked printers. Copy and fax options are now readily available for desktop and networked printers, resulting in even more of the printed pages to be produced on these devices.

This "downward" trend is resulting in significant growth in the printing of pages on office lasers, ink jets and multifunction printers. At the same time, the proportion of pages printed on stand-alone copiers and fax machines is decreasing. Print volume is migrating to distributed output devices, away from centralized, large print and copy devices.

As a result, the number of printers purchased by organizations is increasing. This can be attributed to several things:

- As with the distributed computer model, business managers realize their employees are more effective when print resources are closer to them.
- Low acquisition costs of these devices.
- Little control over the purchasing process because of the low costs.

The end result of this trend is that the networked/desktop printing assets of enterprises are becoming a more important component of your business processes. However, this is typically an unmanaged environment in most enterprises. While production printing and very high end printers are often closely managed, due to their high acquisition costs, desktop and network printers are not. The relatively low acquisition costs of these printers leads to a condition where no organization is responsible for assessing their use, maintenance and management costs. Since these devices are typically unmanaged, their use is not optimized for maximum productivity at minimum cost.

The failure to optimize hardcopy and electronic document infrastructure and processes has a more direct impact on business efficiencies than ever before. The poor management of hardcopy and electronic documents is slowing down the pace of business, impacting customer service and significantly increasing costs.
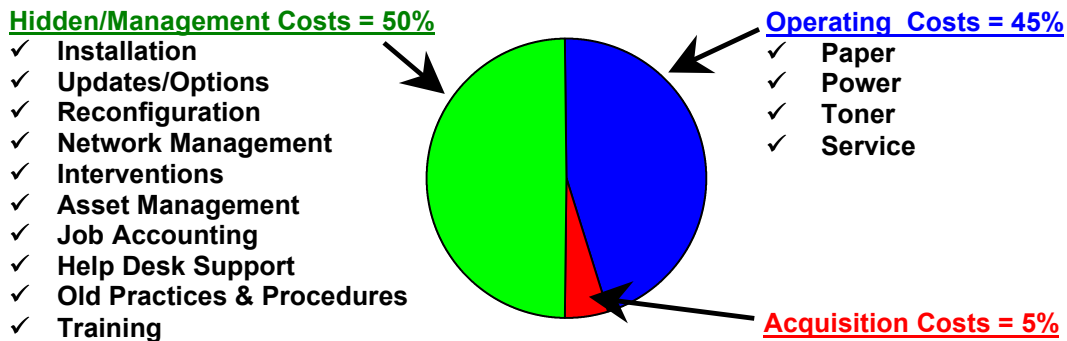
> **Dataquest:**
> - Network printers are growing at the same rate as network PC's – 20% annually . . . and the amount of information printed by network users is increasing accordingly.

Most Print Costs are Hidden Costs

Synopsis: Most costs of printing are "hidden" costs associated with help desk support, user training, managing supplies and maintenance agreements. Most businesses regard these as a cost of doing business, rather than costs which should be managed and optimized.

While it is often easy to look at the cost of acquisition, there are many hidden costs associated with printing. In fact, only 5% of the cost of printing is acquisition, while 95% are these hidden costs.

Hidden/Management Costs = 50%
- ✓ **Installation**
- ✓ **Updates/Options**
- ✓ **Reconfiguration**
- ✓ **Network Management**
- ✓ **Interventions**
- ✓ **Asset Management**
- ✓ **Job Accounting**
- ✓ **Help Desk Support**
- ✓ **Old Practices & Procedures**
- ✓ **Training**

Operating Costs = 45%
- ✓ **Paper**
- ✓ **Power**
- ✓ **Toner**
- ✓ **Service**

Acquisition Costs = 5%

Examples of the hidden costs include:

- **Help Desk Support:** studies have shown that up to 60% of the calls to help desks are print related. With a wide range of devices to support, help desk staff is strained to develop a high degree of expertise for all of the different devices used. This results in fewer "first-time" resolutions of problems, more help desk training time and greater dependence on the various vendors for second level support.

> **Information Week:**
> - 55% network traffic is printer traffic
> - 40% to 60% of help desk calls are printer related
>
> **Real Decisions:**
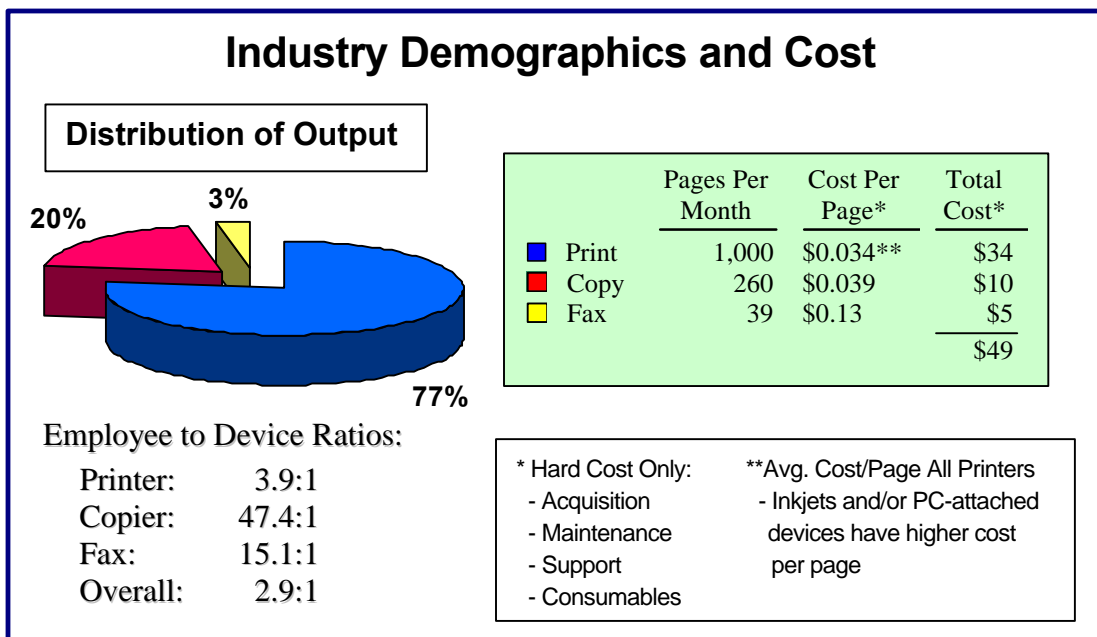> - The average help desk call takes 17 minutes

- **User Training:** users are responsible for their job, not for managing printers. For optimal productivity, users must be familiar with the capabilities of their print devices, how to interact with each device, and how to resolve simple problems without calling on help desk support. Environments with a different output device for each need (small print jobs, color, faxes, copiers, large print jobs) cause users to spend more time than is preferable getting the right printer to do the print job they want.

- **Managing Supplies Inventory**: The typical cost of processing a corporate purchase order is $150. Each time a purchase order for toner or ink is processed, this hidden cost is added to the cost of printing. With more device types, more purchase orders must be processed. Also, there is a cost associated with storing and monitoring the inventory of printer supplies; each different supply item increases this cost.

- **Managing Maintenance Agreements:** each device costs the organization for maintenance and/or extended warranty agreements.

- **Travel Time to Retrieve Documents:** users may need different print devices for varying needs. If devices are not placed in locations close to the point of need, users must spend valuable work time walking to retrieve output. By studying workgroup needs, an optimization strategy for placing the right devices in relationship to users can be developed, striking a balance between having too many and too few devices.

- **Upgrading Print Technology:** fast growing businesses often need to add print capabilities for expanding workgroups or to meet changing needs. Often new faster, more capable output devices are added while the existing printers are moved to other uses or disposed of. Each new device may introduce new problems with user training, different supplies, or network installation. Additionally, there are costs involved in disposing of excess equipment when integrating the assets of newly acquired companies.

Most businesses do not focus on most or all of these hidden costs, regarding them simply as a cost of doing business. Therefore, there is no concerted effort to assess and reduce these costs by managing these printing assets for optimal use.

## Understanding Device Use and Costs

Most enterprises have far more output devices than necessary to accomplish their business objectives. A sampling of typical industry device use and costs shows where paper is generated.

Industry Demographics and Cost

Distribution of Output

3%
20%
77%

		Pages Per Month	Cost Per Page*	Total Cost*
■	Print	1,000	$0.034**	$34
■	Copy	260	$0.039	$10
■	Fax	39	$0.13	$5
				$49

Employee to Device Ratios:

Printer:	3.9:1
Copier:	47.4:1
Fax:	15.1:1
Overall:	2.9:1

* Hard Cost Only: **Avg. Cost/Page All Printers
 - Acquisition - Inkjets and/or PC-attached
 - Maintenance devices have higher cost
 - Support per page
 - Consumables

# Approaches to Optimizing Print Across Your Organization

The costs of printing can be reduced significantly, often by 15% to 20% or more, through a corporate strategy of output management. Major aspects of an output management strategy include:

- **Coordinating output device responsibility under one organization.** In many organizations today, separate groups have responsibility for different device types; facilities often manages copiers and faxes while IT manages printers. As a result, significant overlap of device capabilities can occur, resulting in excess device capacity.

- **Rightsizing the document output fleet**, to provide all the print assets users need, with a balanced tradeoff between device cost and user productivity cost. This is accomplished through an enterprise-wide assessment of user needs, understanding the type of printing, copying and faxing done by each user or workgroup. Output devices are then strategically distributed to support user needs, based on application needs, proximity to users, page volume, people-to-device ratios, cost of ownership, and other factors.
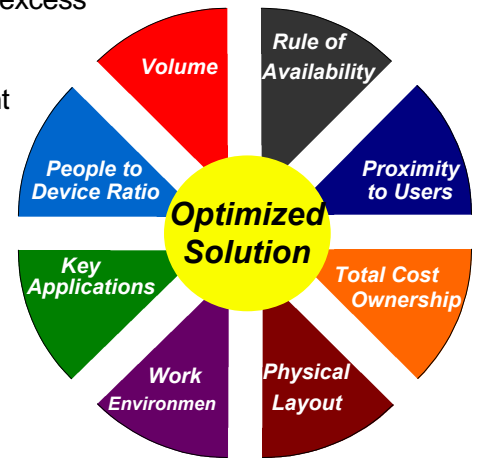
> It's estimated that 30-50% of print assets in office environments are underutilized, while 20-30% are overutilized!

While placing a printer, copier and fax at each user workstation is clearly not optimal use of printing assets, placing a few centralized devices at the end of a hall may not be the optimal use of human resources. A distributed device approach provides the best ability to optimize resources for each group, balancing output resources against user productivity. The graphic below left depicts a typical unmanaged output workplace employing several underutilized devices. The graphic on the right shows an optimized workspace supporting user needs with an optimized device approach – devices are placed in proximity to users based on each user need.
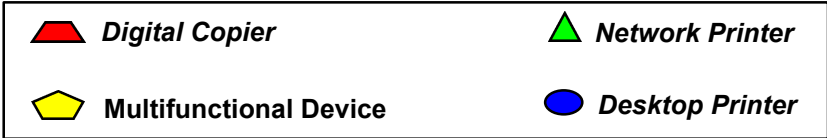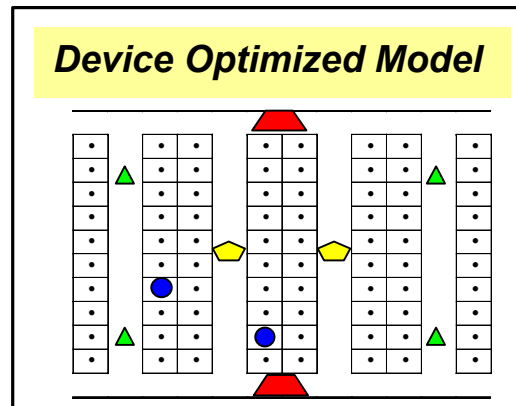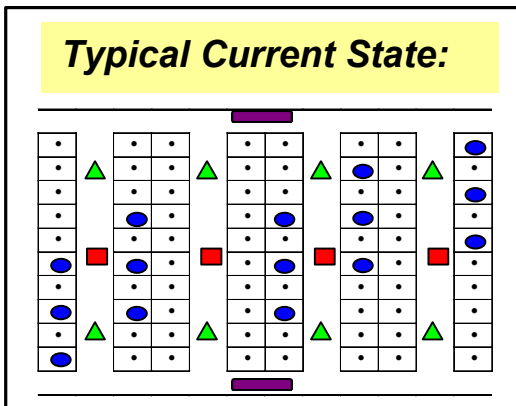
- **Standardizing vendors** across a range of devices. This leads to reduced supplies ordering and inventory, device redundancy, fewer maintenance agreements to manage, reduced user training, reduced help desk support cost, and lower cost upgrades.

- **Pay for Printing, not Printers.** Instead of tying up capital in depreciating assets, various financial options are available which allow companies to pay for only the pages printed, rather than using valuable capital to pay for potentially underutilized assets.

- **Outsource printing to a qualified provider.** Engage with an expert partner who will analyze the environment and implement a highly efficient hardcopy infrastructure, including improved service levels and the latest equipment, supplies and maintenance. This allows the departments currently responsible for printers, copiers and fax devices to continue to focus on other priorities.

- **Publishing "best practices" user guidelines for output.** A corporate awareness campaign to help users understand the ways to reduce the cost of printing can lead to direct bottom-line savings in toner and paper. Users quickly adapt to the use of paper saving features like "multi-up" and toner saver when they learn of these capabilities.

Characteristics of an Optimized Print Environment

There is no single correct answer to what constitutes a "best managed" print environment. However, understanding characteristics of the "average" environment helps define the areas where improvement can lead to reduced cost and a real competitive advantage.

The Opportunity Presented by a Managed Print Environment			
Employee to Device Ratio	Below Average 1:1	Average 3:1	Above Average 8:1	Highly Optimized* 12:1
Output Volume* Per Employee (Pages per Month)	2,000	1,100	800	500
Device TCO	Inkjet	Low-end / old tech	High-end / old tech	Optimized
Support Processes				
- Assets	No Standards	Some Standards	Monitored Std's	Rigorous Std's
- Acquisition	Purchase Only	Purchase/Lease	Lease/Usage	Pay for Use
- Service	Self-Maintain	Some Fee Svc's	O/S Services	Pro-Active Svc's
- Help Desk (% print)	>25%	10% - 25%	<10%	<1%
Estimated Savings Opportunity	40%	30%	20%	10%
				* Varies by Industry

Conclusion

Printed documents are everywhere in today's organizations, still providing up to 50% of your information system. Paper touches every aspect of business and almost every business process. It is the preferred delivery and viewing mechanism in many instances and it will be a part of business well into the future.

As businesses look for ways to reduce costs in order to remain competitive, the cost of printing is often overlooked. Yet analysts estimate that the total cost of printing is between 1% and 3% of revenue, with office print being about 20% of this cost. By implementing a managed document output strategy, corporations can often reduce their cost of printing by 15% to 20% or more, reduce process bottlenecks and improve customer service.

The optimal business print strategy is to fully understand where all the costs of printing reside within your business environment and processes. This involves a complete, group-by-group assessment of current methods or processes and the business needs of each user or group. Once this is done, technology can be matched to user needs to develop a design for users which meets their needs at the lowest total cost. Also important is user awareness of how to take advantage of all the capabilities that today's document output technology provides.

The end result is that there is not one "best" implementation – the optimal document output strategy looks at each workgroup to determine which device infrastructure, acquisition method and support approaches will meet business output needs for the lowest cost and best productivity. Working with an expert who can manage this important business function is often the most effective way to reduce the total cost of printing and streamline document processes. The right partners can help companies identify and deploy technology solutions that enable them to ***print, move and manage*** information more effectively and efficiently.

About Lexmark
Lexmark is a leading supplier of document products and services to businesses and consumers around the world. Lexmark is widely recognized for it's quality and innovation, named among "America's Most Admired Companies" (Fortune Magazine), "The Information Technology Top 100" (Business Week) and the "Top 100 Most Influential Companies" (PC Magazine).

Lexmark helps solve business needs in a variety of ways . . . from improving a particular process to managing an entire output infrastructure. For more information on Lexmark products, solutions and services call 1-800-Lexmark or visit www.lexmark.com.

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