Pharos Systems

making every print an intelligent decision™

Identify and Slash the Largest Hidden Expense in IT Today: Print Costs

Pharos Systems International White Paper

Executive Summary

The document output industry, which includes office printing and copying, is a $130 billion dollar a year business. Organizations today cannot operate effectively without providing a printing infrastructure to employees, because printing is a core element of office communication.

Companies routinely spend millions of dollars, $1,000 or more per employee and 1-3% of their revenues on the creation of paper documents. However, very few companies today measure and control this critical element of their Information Technology spending budget. In fact, most companies cannot estimate the number of printer and copier assets they own within 25% of the actual number. Since printing costs and investments are largely invisible, most organizations have dramatically underestimated their costs and over-invested in equipment and spending, the end result of which is a huge opportunity for savings with the right technology in place. The average 10,000-person firm can achieve more than $1,500,000 per year in savings by implementing an Enterprise Print Asset Management program.

Charles Johnston, retired Assistant Vice President of IT Operations for Southwestern Bell Corporation (SBC), recognized this opportunity for the 180,000-employee organization. "We were spending large amounts of money on printing. I knew we needed to improve our monitoring and control systems when we had trouble identifying how many printers were installed, and tracking what we were spending on equipment, maintenance, and consumables. After researching this problem and performing on-site sample surveys, it was clear we could generate significant savings by focusing our efforts in this area. We implemented new print policies and a Print Asset Management system from Pharos Systems. If I had to do it all over again, I wouldn't have wasted time with the on-site surveys, I would have made the selection and implementation of the Print Asset Management solution our first priority, in order to achieve an accurate, complete, and real-time picture of our print environment spending."

This white paper explores the opportunity that exists for organizations to save a considerable amount of money by implementing an Enterprise Print Asset Management solution, and how such a solution can illuminate the hidden reality of uncontrolled printing costs and investments. Such a solution is remarkably easy to implement, and companies can begin experiencing savings almost immediately. "Our ROI (return on investment) for this solution was just three to four months." added Johnston. "This makes the Pharos Print Asset Management solution very attractive for businesses looking to experience savings in a short amount of time."

We know of no other cost-savings opportunity that offers as simple an implementation and as big a return as Enterprise Print Asset Management. For more information, please read on.

Best personal regards,

Kevin M. Pickhardt
Chief Executive Officer
Pharos Systems International

Problems

Printing has been a significant and an uncontrolled company expense for years. The cost of printers and multi-function devices[1] has plummeted and as a result, unregulated device and subsequent supply purchases by various individuals and departments in your organization have skyrocketed. The end result of these unmanaged purchases, often made out of a stationery budget or discretionary funds, is twofold. First, organizations are literally bursting at the seams with thousands of printers (including expensive-to-run desktop inkjets) in a variety of different models, which they don't know they have and, even more importantly, do not need. And second, as these devices age, they are far less efficient than newer models, whose output vastly exceeds the yield of the older models.

When the employee-to-printer ratio is small, when printer supplies cannot be purchased in bulk, and when inefficient older printers drain your supply budget, enterprise print costs spiral out of control. These problems translate into significant costs for your enterprise, and represent funds you could use for greater opportunity in other areas of your budget.

Solutions

The solutions to these problems and the steps necessary to realize considerable savings lie with Enterprise Print Asset Management, which allows your organization to optimize its environment, standardize its equipment, and track and measure your total enterprise print expenditures. Industry analysts estimate that most companies spend 1-3% of their annual revenue on output (including equipment, supplies, maintenance, and copying). Through effective Enterprise Print Asset Management, you can actually eliminate 10-30% of this spending simply by centrally managing output, as shown in **Table A**. And the savings continue to grow over time as well.

A Fortune on Paper

Company size (annual revenue in millions)	Annual print spending (in millions)	Potential annual savings (in millions)
$ 500	$ 5-15	$ 0.5-4.5
$ 5,000	$ 50-150	$ 5.0-45.0
$ 10,000	$ 100-300	$ 10.0-90.0
$ 50,000	$ 500-1,500	$ 50.0-450.0

Source: *The Paper Trail,* Pui-Wing Tam, The Wall Street Journal Online, September 13, 2004

Table A: *Potential savings from winnowing down printer fleets and managing the fleets more aggressively, according to research firm Gartner, Inc.*

In this white paper, we'll help you identify the six hidden components that drive up print costs in your organization. We'll then show you how to take control of your printing environment with

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[1] This paper refers to printers in general, which include multi-function printers and copiers, which connect scanning capabilities directly to the printer engines.

Pharos Blueprint™ Enterprise software. We'll highlight the four-phase "user blueprinting" process, and we'll show you how Blueprint™ Enterprise technology can help your company save money by identifying a wide variety of cost-savings opportunities.

Identify the hidden costs of print

To begin the process of assessing and managing your document output expenditures, you first need to understand the factors that drive up your costs.

A number of components drive up operating costs, including:

1. Excess capacity
2. Lack of standardized equipment
3. Dated technology
4. Expensive-to-run desktop inkjets
5. Cost of printing supplies
6. Unmanaged user printing

Gartner, Inc. estimates that worldwide, businesses spend $130 billion on office document printing and copying each year. Of that amount, 70% is related to operating costs such as supplies, break/ fix servicing, management, and employee interventions of the 50 million copiers, printers, and fax machines in use around the world.

Source: *Office Printing TCO: Don't Lose the Supply Cartridge Game*, Gartner research brief, Peter J. Grant, Ken Weilerstein, and Andrew Johnson, 17 March 2004

Excess capacity

Most organizations do not know the number of printers they own and use in their business. While purchasing agents may negotiate contracts for copier and printer purchases (and even supplies), they usually do not control the actual purchases, audit the invoices, or identify insufficient or excess capacity in their organizations.

Furthering the problem, many levels of corporate staff often purchase low-cost printers, and then replenish supplies and arrange maintenance independently. These printers, purchased for a nominal cost out of departmental discretionary funds, are not listed in a company's asset register and therefore escape proper scrutiny. As a result, the cost of using these devices is hidden and easily lost within general accounts, as shown in an example case study in **Figure A**.

From an independent study undertaken by BERTL / Digital Times:

Case Study 1:

- Buyer's Asset Register showed four laser printers.
- BERTL's independent audit uncovered a total of 48 printers.
- All running cost calculations were loosely based around printers on Asset Register – there was no record of consumable spending for any of the additional 44 printers.

Case Study 2:

- Asset Register showed 40 items.
- BERTL audit uncovered 100.
- All 60 unrecorded items were printers. The 60-printer population and the related consumable spending and page volume were totally unrecorded.

Source: *Wake Up to the True Cost of Printing*, Carmel Rowley, BERTL /Digital Times, www.Digital-Times.net, 27 October 2000 (website as of 2004: www.BERTL.com)

Figure A: *Many companies' asset registers do not accurately measure the number of devices an organization actually possesses.*

Organizations are often shocked to discover the number of output devices they actually own. In 2002, Bank of America Corp went looking for ways to curb spiraling printing costs and discovered its 180,000 employees had access to 90,000 printers. [2] This situation is not uncommon. Most institutions have one network printer for every three to four users. This excess capacity means device utilization is typically much lower than most companies realize and results in unnecessarily high costs, as shown in **Figure B.**
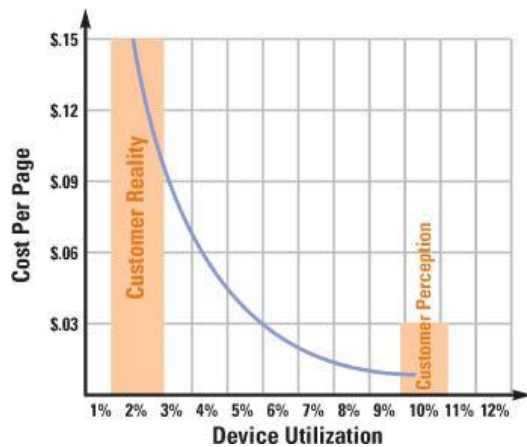
Figure B: *The cost of excess capacity – per page costs rise as usage declines per printer.*

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[2] *The Paper Trail,* Pui-Wing Tam, The Wall Street Journal Online, September 13, 2004

Our experience during the Assessment and Optimization phases of user blueprinting indicate that average printer utilization in the majority of institutions is less than 2% of total capacity, with many printers operating at less than 1% of total capacity.[3] Our software can help your organization identify points of excess capacity and make recommendations to reduce the capacity by eliminating unneeded equipment. The results both eliminate real expenses for equipment lease and maintenance, and also reduce per unit costs by pushing the remaining devices to their optimal utilization. Removing excess capacity can reduce costs by $0.05-0.10 per page on reasonably used printers.

Lack of standardized equipment

When multiple levels of staff make independent purchase decisions, your printing environment is not optimized and your bottom line suffers. On sale equipment is tempting, so different manufacturers, different brands, and different models often co-exist on office floors. Maintaining a non-standardized collection of devices is expensive because your organization then must purchase different toner and inkjet cartridges as well as service contracts for each of the models. This kind of purchasing reduces the opportunity for negotiating volume discounts across the spectrum of equipment, supplies, and service with a single supplier.[4]

Non-standardized equipment may also lead to higher support costs. Different drivers and operating characteristics make more work for the IT help desk, since office staff are less able to help each other out with equipment problems.[5]

During the Assessment and Optimization phases of user blueprinting, the Pharos Device Detailer collects detailed physical model information for each printer in your organization. Each user print transaction is matched with a database of over 5,700 models from Lyra Research, Inc to determine the exact manufacturer, imaging technology, page-per-minute rating, and color capability available for every model of device in your enterprise. This information will help you make cost-saving decisions about printer consolidation and help you to eliminate unproductive equipment.

Dated technology

While the lifespan of a laser printer is about three to five years, market research company IDC states that plenty of businesses keep their laser printers up to eight years. And the lifespan of an inkjet printer in the office environment averages only about four years for the more expensive models.[6] The typical $1 billion enterprise wastes as much as $6 million a year on outdated printers and decrepit copiers alone.7 This is because while older printers may still work adequately, they are more expensive to operate, less reliable, and require more maintenance.

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[3] For the purpose of this analysis, capacity is defined as throughput speed for a single shift usage.
[4] Printer and copier fleets: the gold mine in the hallway, K. Weilerstein, Gartner Research Note, 19 August 2003
[5] Printing Costs Are Out of Control, Kristina Blachere, Ziff Davis Smart Business Mag, www.smartbusinessmag.com, 1 July 2001
[6] Putting Old Printers Out to Pasture, Lance Ulanoff, March 14, 2003, www.pcmag.com
[7] Five Technology Mistakes Smart Companies Make—and How To Avoid Them, Kristina Blachere, 1 July 2001, Ziff Davis Smart Business Mag, www.smartbusinessmag.com

They use more cartridges (by design) than newer models doing the same work, and they print more slowly. A modern 40+ ppm printer can often effectively replace several older, lower speed printers. [8]

The Pharos Assessment phase also helps to identify older printers whose productivity problems are costing your enterprise money. By linking printer models with market-based supply pricing, Pharos points out the right time to make technology changes. Outdated print and copy technology can cost your organization 2x-3x more in supplies and service than purchasing faster, more reliable, more cost-effective, multifunction products, and we'll show you exactly how to accomplish this.

Expensive-to-run desktop inkjets

Aided by the traditional "razor/razor blade" business model of inexpensive printers and expensive supplies, cheaply acquired desktop inkjets likely sit on hundreds of desks in your company. However, they are expensive to run and are a major contributor to escalating printing costs.

Consider the price of personal inkjet supplies: cartridges hold about an ounce of ink and sell for about $30 each. There are 128 ounces in a gallon, so the ink in your inkjet cartridges actually has an equivalent cost of about $3,900 per gallon.[9]

Pharos' experience in print cost management has demonstrated that the typical knowledge worker prints over 550 pages per month and copies an additional 350. These figures are verified by independent industry research. Many industries routinely surpass 1,000 pages of document output per employee per month. If even 10% of this output goes through a desktop inkjet printer, then the costs begin to mount. Using an inkjet for your printer needs is highly unadvisable. Instead, we recommend using laser printers, which may cost more to buy but much less to use.

With all costs figured in, each document page printed on a typical laser printer costs from 2 cents to 5 cents; on an inkjet, the cost per page can run from 10 cents to 15 cents, depending on the model. [10] Adding color can make these costs 3-5x greater.

Pharos Blueprint™ Enterprise tracks all output, regardless of printer type or connection. The software automatically establishes costs per page based on industry-standard pricing data that includes the acquisition cost and the supplies cost, so that you can easily identify the volume and savings opportunity enabled through desktop printing management.

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[8] Printer and copier fleets: the gold mine in the hallway, K. Weilerstein, Gartner Research Note, 19 August 2003
[9] Saving money on the high cost of printing, Al Fasoldt, Technofile, April 4, 2004, Copyright © 2004, Al Fasoldt, Copyright © 2004, The Post-Standard
[10] Saving money on the high cost of printing, Al Fasoldt, Technofile, April 4, 2004, Copyright © 2004, Al Fasoldt, Copyright © 2004, The Post-Standard

Cost of printing supplies

Industry analysts contend that the cost of the supplies alone used in printing a single monochrome page averages $0.05[11], and adding other direct costs[12] can take this cost up to $0.08 per impression. This equates to $50-80 per month per employee or $600 to $960 annually.

Furthermore, a basic business letter can cost around 10 cents to print: black printing only, bold in the address and signature lines, a little underlining, perhaps a simple logo, some emphasis in a different font – and this using a well-built toner cartridge. Even changing the font from Times Roman to Arial increases the print cost. [13]

More and more office workers are printing and copying their documents in color, and these practices add another, very expensive element to the document output environment. Although the price of color printing supplies is dropping, the operating cost of a networked color laser printer is typically three times higher than a monochrome one, at 38% area coverage, as shown in **Figure C**. Experience indicates that operating costs for color inkjet printers can run from 9 cents to 20 cents per page at the same coverage rate.

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[11] Document Output Analysis, Bill Melo, 10/1/2003, The CFO Project, http://www.cfoproject.com
[12] Direct cost includes the amortized cost of the printer and copier, the maintenance of the device and the consumable usage of paper and toner. Color output and related network and support costs will increase these cost assumptions.
[13] *Wake Up to the True Cost of Printing*, Carmel Rowley, 27 October 2000, Business Equipment Research & Test Laboratories (BERTL) /Digital Times, www.Digital-Times.net (website as of 2004: www.BERTL.com)

Monochrome coverage

2% coverage	10% coverage	11% coverage	26% coverage
Toner cost per page: 1-2¢	Toner cost per page: 3-5¢	Toner cost per page: 4-6¢	Toner cost per page: 9-14¢

Color coverage

1% color coverage	13% color coverage	18% color coverage	38% color coverage
2% black/monochrome	6% black/monochrome	10% black/monochrome	11% black/monochrome
Toner cost per page: 2-5¢	Toner cost per page: 11-16¢	Toner cost per page: 16-25¢	Toner cost per page: 28-43¢

Figure C: *Monochrome versus color coverage cost per page.*

Source: © Lexmark Canada
http://www.lexmark.com/lexmark/sequentialem/home/0,6959,204812589_283231201_286256688_en,00.html

Analysis of one actual Pharos Blueprint™ Enterprise site comprised of over 1,400 devices shows that although the cost per page before paper averages $0.04, half the machines generated a cost of over $0.07 per page. While the 250 most efficiently used devices cost under $0.03 per page, the site is paying over $0.25 per page for 200 machines, and over $1.00 per page for 54 machines.

Unmanaged user printing

Many users print documents without thinking of the expenses associated with their print jobs (color printing, multiple copies of large documents). Without ongoing measurement, reporting, and management of printing at the user level, companies end up paying for their employees' careless and often wasteful printing habits. Employees have little knowledge of and often-limited control over the costs they incur by printing on a daily basis.

Our experience has shown that with Informed Print services, which provide control and information to employees on printing costs, employee behavior changes, reducing total output volume by as much as 30%, eliminating waste, and redirecting printing to the most effective devices.

Calculate the total cost of document output

As you've seen, the total cost of document output combines not only the purchase costs of the equipment, but also explicit operating costs and hidden internal costs, which are spread throughout the organization. Pharos suggests that you begin your Enterprise Print Asset Management program with a print cost management strategy that calculates the average cost per page, as shown in **Figure D**.
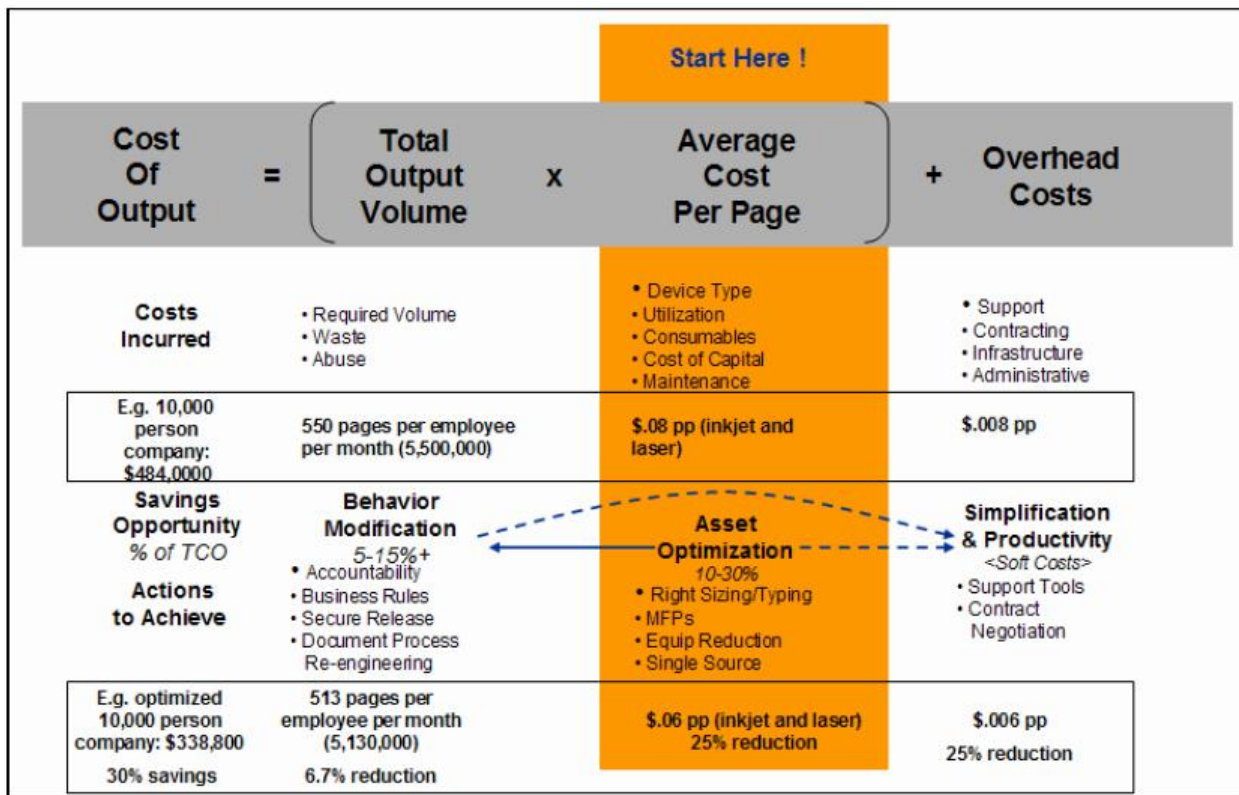
Figure D: *Determining the total cost of output before optimization of the printing environment, and then after.*

Take control of your environment

Once you've pinpointed where the trouble spots lie in your printer fleet and calculated the cost of printing and copying in your enterprise, you have the opportunity to simultaneously improve your company's efficiency and experience significant savings, as illustrated in **Table B**.

The Document Infrastructure Makeover
Optimization Objectives per 100 Employees

Infrastructure Component	Typical Enterprise Document Structure	Optimized Document Infrastructure
Equipment Assets (Printers, Copiers, & Faxes)	29.41	18.75
Fully Burdened Cost Per Page	$.50-$.70	$.30-$.42
# of Unique Devices	10.29	6.0
# of Unique Supply Items	21.52	9.5

Source: Document Output Analysis, Bill Melo, 10/1/2003, The CFO Project, http://www.cfoproject.com ©1995-2003 All Associates Group

Table B: *Comparative review of a typical document production infrastructure, pre- and post- analysis.*

This is accomplished by taking back control of your document output environment and managing subsequent output with Pharos Blueprint™ Enterprise software. Blueprint™ Enterprise will help your company organize, streamline, and standardize its printer fleet in the following four phases of **User Blueprinting**:

Assessment: The user blueprinting process begins with a Current State Analysis of your printing environment, because printing is the fastest growing output segment. We'll capture all user-based local and network print data so we can show you which users are printing, what they're printing, how much they're printing, and which printers they're using to generate their output. Our reports will help you accurately measure your total enterprise print costs, so you can manage and significantly reduce those costs.

Optimization: Once you've read the reports, Pharos will help you uncover fact-based, vendor-neutral print and copy solutions to balance user productivity, convenience, and cost-efficiency. We'll show you how to consolidate and redistribute your equipment so that only the devices that align with your actual output requirements remain. Pharos can help your organization reduce the employee-to-printer ratio from 2:1 to 10:1, save $360 per employee, per year, and lower overall print costs by approximately 30% without a lapse in user services or productivity.

Accountability: The accounting phase of the user blueprinting process allows you to charge output back to the department level. This ensures that costs are shared equitably based on actual usage, while at the same time encouraging more responsible user printing and copying.

Sustainability: The user blueprinting process provides you with continual assessment, optimization, and accounting tools and processes to help you sustain a productive, profitable enterprise. This phase helps you monitor and manage the ever-changing office workplace to achieve measurable and sustainable savings, enterprise-wide, year after year.

Best of all, Pharos Blueprint™ Enterprise includes Advanced Information Customization Services, which takes print cost management to the next level. Advanced Information Customization Services tie into your business systems and provide you with money-saving solutions for your specific environment. These software features incorporate data from a variety of sources, including HR databases, budget centers, and even the devices themselves, and provide you with custom user-level information (including but not limited to file names, manager names, and department names, etc.) to help you make important optimization decisions. You can track employees as they move from department to department so that charges are accurately allocated to their new departments and not their former ones. And because print vendors' device management tools pull information directly from the devices, you can reconcile print transaction data with device meter-read information so that you're not spending more than you need to on supplies.

With Pharos Blueprint™ Enterprise, you finally know what you are spending on every printed, copied, or faxed page.

Pharos can help your company experience significant savings with:

- Limited investment of IT staff and resources
- No end user training
- No impact on key business processes
- Very little capital investment

You can implement management measures on several levels and because the steps are progressive, your company can realize savings at every point along the way. This four-phase process is illustrated in **Figure E**:
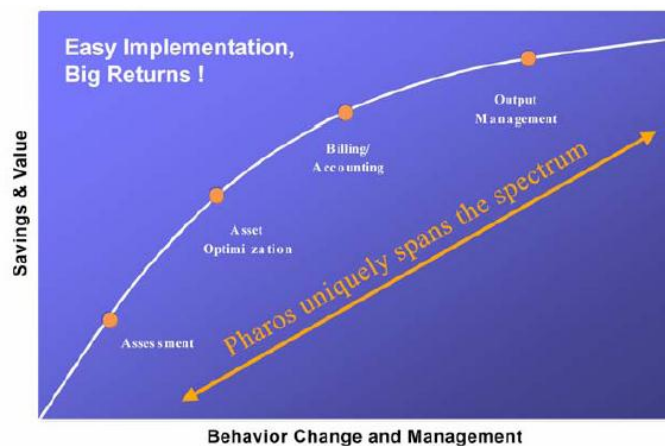
Figure E: *Blueprinting users - the savings/management progression.*

While there are many device manufacturer tools on the market today that can assess your document output environment, identify excess capacity, and facilitate recommendations for eliminating unnecessary equipment, in most cases, the benefits are limited to the Assessment and Optimization steps in the savings/management progression.

But with Pharos Blueprint™ Enterprise and user blueprinting technology, you not only have access to the Assessment and Optimization stages utilized by our competitors, but you'll be able to capitalize on each stage of the four-phase process to streamline and optimize document output and to develop new strategies for sustained management as well.

The key is to manage the enterprise environment at the user level, a process that lies at the core of Pharos' user blueprinting technology. By blueprinting users and their practices, you can create a discovery web of print activity that allows you to make informed decisions to deliver the impact that you need to save money.

"Blueprint" users and watch your savings mount

Pharos Blueprint™ Enterprise is a sophisticated application that enables you to explore and map your document output environment through the individuals who are active within it.

So how does it work? A small client component is installed invisibly on all desktop workstations and/or print servers whose printing you want to track. These clients record the details of all jobs printed through each machine, and send this transaction information to a server component, which collects data before exporting it for analysis and reporting. The process is thorough without being intrusive or disruptive, and the information you need for decision-making is available in as little as 30 days.

Advantages of User Blueprinting

The advantages of blueprinting users span a wide range of cost-saving opportunities:

Multi-layered, user-level tracking

Device manufacturers provide free tools that poll their machines to determine activity. Then, the tools consolidate meter reads and offer summary reports of gross usage (or how many of the devices were printed to and how many pages were printed). However, a single proprietary tool will not give you the comprehensive information you need to make sound decisions if your office environment is packed with non-standardized equipment.

To further the problem, by collecting only the output of each polled device, these tools provide no insight into the patterns of user activity. Without user and transaction-level information, your data is of little use. Without user-level data, you cannot understand what's happening in your organization at the depth that you need to manage it and make the proper decisions. By assessing user data at the enterprise level, you can experience a cost-savings of 40% through more appropriate hardware acquisition, and through better-targeted placement of those devices at the correct locations in your organization's document flow, as shown in **Figure F.**
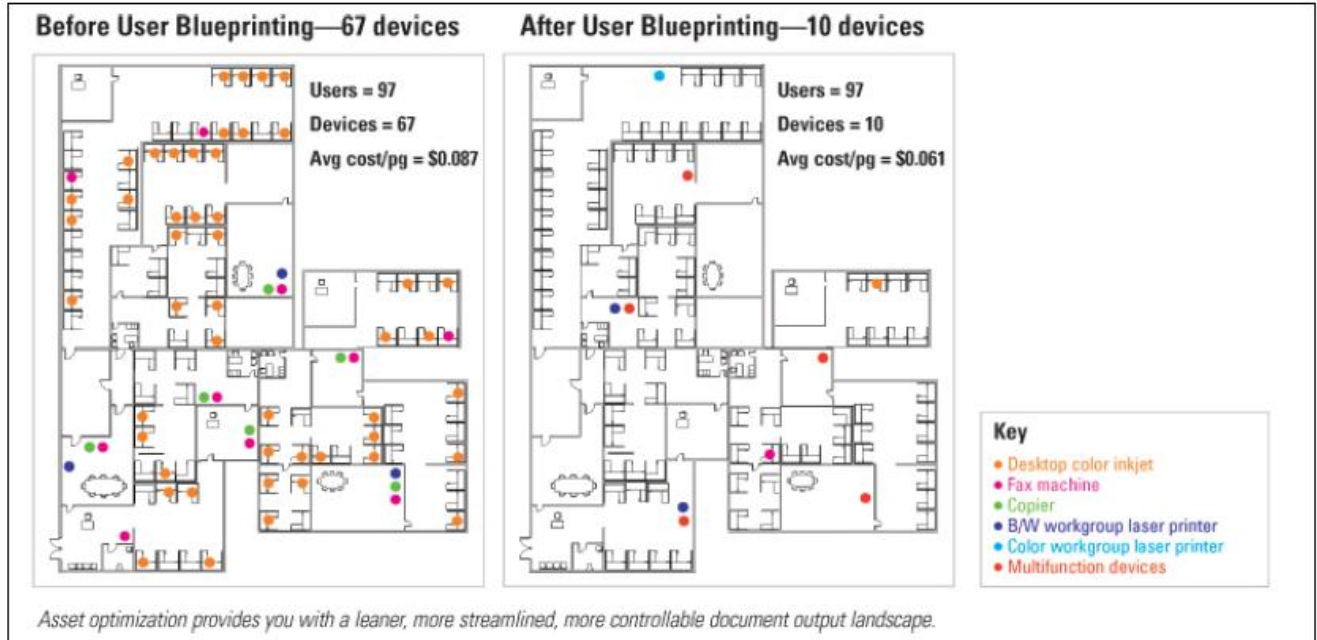
Figure F: *Simplified floor plan from an actual Blueprint Enterprise™ site showing the rationalization of devices made possible by user blueprinting.*

Gathering user and transaction information is essential because it allows you to:

1. Identify the power users and the volume of their output.
2. Discover the applications used and the types of documents being printed.
3. Understand peak loading on a monthly, weekly, and daily basis.

Once you have these details, you can:

1. Understand the business need of all printed documents.
2. Decide whether these documents need to be printed in hard copy.
3. Determine the best kind of device to use.
4. Determine the best location for that device.

If you rely on device data alone, you can pinpoint the printer that does 50,000 pages per month and the printer that does 50 pages per month, but you won't know whether the 50 pages are confidential or time-critical. And if many printers in your organization aren't recorded in the asset register and are therefore virtually unknown to anyone but those who use them, Blueprint will use transaction data to estimate the location of these printers, and will associate each device with the user who records the highest transaction volume.

Being able to collect the proper information enables you to make the best decisions.

Bank of America managers discovered … that 70 percent of their printing was going to the most expensive devices. Only 5 percent of their digital multifunction products (MFPs) were connected to the network. Network administration software was not being used to monitor workgroup printers and MFPs, either for diagnosis of problems or for tracking page volumes. No one department owned document printing and nobody was excited about volunteering.

Source: *Bank of America Puts New Controls on Document Printing Costs,* Peter J. Grant and Frank W. Schlier, Gartner, 25 May 2004

Correlate meter reads with user data

Pharos Blueprint™ Enterprise is more than a simple information collector. Blueprint Enterprise™ integrates with common device management tools such as Hewlett-Packard® Web Jetadmin, Lexmark® MarkVision Pro, Canon® NetSpot, and Xerox® CentreWare Web. Through these applications, Blueprint polls print devices to discover how many prints each device produces. Blueprint compares these meter reads against the user transaction data we have gathered and, if necessary, uses proprietary algorithms to work out a reasonable allocation for the difference.

Why is this necessary? First, Pharos Blueprint™ Enterprise transaction data may not agree with the device meter reads. Transaction data may fall short of meter reads because not all print document output originates from user workstations and is subsequently untracked, including:

- Output originating from mainframe Unix, such as ERP printing like SAP
- Maintenance pages printed by technicians
- Software-generated printed forms
- Multifunction product (MFP) meters, which include copy and in-bound fax volume, outbound fax confirmation pages, and fax traffic reports.

In addition, some devices meter a blank final page in a duplex document, which results in a transaction-meter mismatch. It is also possible to have falsely high transaction data if print jobs were cancelled before they hit the printer.

Also, a device meter read may not be accessible at certain times. If this happens, Blueprint uses the print transaction data as the definitive reading. Once the device meter read reappears, Blueprint reverts to the data comparison.

So, how does Blueprint determine a reasonable allocation for the delta between the number of pages we tracked to a device and the device meter read? Let's look at an example.

Say five users are known to be connected to a business inkjet and are regarded as 100% responsible for the printer's use. User A typically prints 15% of the tracked output, User B 10%, User C 30%, User D 25%, and User E 20%. One month Pharos Blueprint™ Enterprise tracks a total of 50,000 pages to the device from the five users, but the device meter records 52,000 prints. How do you deal with the extra 2000 prints? Blueprint Enterprise™ provides some options for dealing with this difference:

1. Assume the user data accurately represents the way the departments use the device and allocate the delta in the same ratio as the confirmed printing.
2. Assign the delta to a different charge number, such as a corporate level budget center, to allow management to make an allocation decision.
3. Provide the recorded differences for each printer and allow management to work out what the output is and where it's coming from. This enables the organization, for example, to find standard processes like ERP reports that are routinely printed every month and thrown away because no one uses them anymore. One client discovered a number of automatically generated multi-page reports that were not used by anyone, but which had been dutifully produced every month for years.

Improve help desk efficiency

Pharos Blueprint™ Enterprise ties in to your corporate help desk. This is helpful for support engineers and streamlines productivity because locating problem areas is quick and easy. By leveraging the data that Blueprint collects about assets and who's printing to them, help desk engineers are provided with information they haven't had before.

In addition, because Pharos Blueprint™ Enterprise integrates with common HR systems, a help desk engineer needs simply to enter an employee's number to identify the printers that employee uses. This makes it easier to locate a troublesome printer in response to an employee complaint.

Enforce department accountability

The number one method of ensuring cost containment is to enforce accountability. Until now, however, accountability for document output has been a foreign concept, driven by the lack of focus on printing as a manageable activity.

Pharos Blueprint™ Enterprise changes that landscape by making it easy to measure print output and allocate it back to budget centers through its Assessment, Optimization, and Accountability phases of user blueprinting. By managing billing and accounting down to the employee level and ultimately rolling it back to the department, managers closer to the employee are responsible for the expense. The closer you are to an expense, the easier it is to manage it.

As you optimize the print environment it's natural to consolidate devices to ensure better utilization. Consolidation often results in multiple departments sharing a device. Pharos Blueprint™ Enterprise makes sure that utilization of shared devices is accounted for equitably.

Collect data from multiple sources with Advanced Information Customization Services

Before Blueprint™ Enterprise, billing printing costs back to individual departments has required

employee feedback via pop-ups or manual record. Blueprint™ Enterprise's Advanced Information Customization Services eliminate this tiresome extra step by automating the allocation process using the up-to-date data contained in your HR system.

Blueprint™ Enterprise is the only product in the market that can routinely pull the charge numbers assigned to every employee from your HR system based on the employee's network logon ID, and merge them with reports. As users move from department to department, floor to floor, or building to building, Blueprint™ tracks their movement, automatically updating the charge system and allocating transaction volume correctly. Blueprint™ integrates with common HR systems in the office space, and can be customized to work with others.

In addition to HR systems, Advanced Information Customization Services also allow you to collect data from a variety of other sources, including budget centers, and even the devices themselves, to provide you with the user-level information you need to help you make important optimization decisions. When you have information from a variety of sources, you're able to make more informed decisions to save you more money. And only Pharos makes this possible.

Make the smart choice

By taking charge of your organization's print cost management, your company can experience significant cost savings, improved operational efficiency, and sustained profitability. Maintaining such an advantage in the ever-changing workplace is critical to your organization's success.

Pharos Blueprint™ Enterprise can do all of this for you. By blueprinting users through our four-phase process (Assessment, Optimization, Accountability, and Sustainability), we'll show you how you can identify your total enterprise output costs, optimize your printer fleet, charge back printing costs to individual departments, and create a plan to sustain productivity and cost-savings into the future. And using Advanced Information Customization Services, you'll have access to user data from multiple sources, which will enable you to make smarter, more informed cost-management decisions. This is something that no one else in the industry can offer you.

You can quickly, easily, and reliably optimize your document output environment and build in future flexibility with the premium solution developed for the office market by a trusted name in print cost management. Begin your cost-savings initiative today by contacting one of our consultants, who can offer you tools to estimate your total output costs, or provide you with real, customer-specific data through a pilot run of our software. For more information, please contact Pharos Systems at 888-864-7768 or on the web at www.pharos.com.

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