



## WHITE PAPER

# Beneath the Surface: The True Cost of Enterprise Printing

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### Executive Summary

While today's CIOs have their heads in the cloud, they'd do well to look first under the sea at the hidden parts of the iceberg that represent the huge and unseen costs of Enterprise printing. By working with a managed print service (MPS) provider, significant cost reductions of 20% to 30% can be achieved in the total cost of printing.

When all printing costs are uncovered, it's often a shock to CIOs to learn that company print spend is substantial, typically representing 1%–3% of an organisation's revenue<sup>(1)</sup>. For many organisations, with average IT budgets running at 4% of revenue, attacking the hidden costs of printing can be the easiest target of all for cutting IT budgets. Cost reduction efforts are being made, but they are frequently focussed on the visible hard costs, which represent a fraction of the total cost.

Research shows that less than half of organisations routinely track hardcopy costs. In addition, less than a third track the IT helpdesk and support costs associated with hardcopy, and most do not use Web and network tools to manage hardcopy devices<sup>(2)</sup>.

IDC has identified the following major benefits of MPS

- ☑ Overall cost reductions of 20% to 30% through MPS
- ☑ A reduction in hardware costs of 25% to 60%
- ☑ A 30% reduction in energy consumption and 20% reduction in toner consumption by upgrading products at the end of their product life cycle
- ☑ A 10%–15% reduction in wasted output through pull printing alone
- ☑ A 7%–14% cost saving in print-related helpdesk calls
- ☑ A dramatic decrease in administrative costs depending on the number of previous supplier relationships

This White Paper:

- ☑ Identifies the major hard monetary costs and hidden costs associated with the print environment
- ☑ Provides recommendations on the best approach for undertaking a rigorous assessment of the print environment.
- ☑ Outlines the first steps in engaging with an MPS provider
- ☑ Provides real-life MPS customer examples of challenges, solutions and benefits in implementing MPS



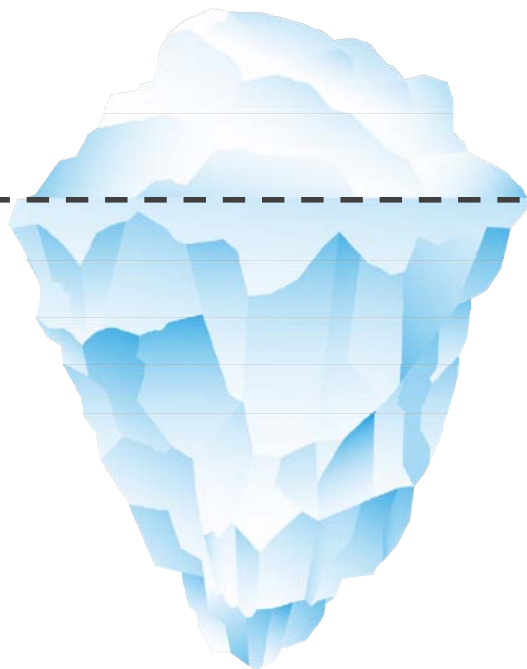
## Background

In spite of a good recovery of 8% in global IT spending in 2010 over 2009, regional variables and continuing economic uncertainty are resulting in an air of caution regarding IT investment, along with a determination not to return to more profligate pre-recessionary norms. It is evident that the global recession has left an indelible mark on IT departments, with a much closer scrutiny of the balance of capital costs versus operating expenditure, the latter being seen as providing greater flexibility, at less cost and lower risk. As a result, the reduction of operating costs is a major priority for businesses. Cloud computing — currently top of many CIOs' minds — accords perfectly with this priority and can frequently conceal other simpler and less risky cost reduction efforts, which may afford greater cost reductions.

Managed print services should be a key initiative in any CIO's portfolio. Print-related costs represent a significant proportion of this IT spend, and although some businesses have attempted to identify and reduce these costs, there is still widespread lack of awareness of the magnitude of print-related spending. Estimates of print spend as a proportion of company revenue differ wildly and can be as high as 12%<sup>(7)</sup>, with an accepted average range of 1% to 3%<sup>(1)</sup>. Direct costs account for only a fraction of the total cost of printing, with companies finding it difficult to identify and quantify the remaining substantial "hidden" costs of printing.

**FIGURE 1**

### Hard Versus Hidden Costs



#### Hard Print-Related Costs

- General Office Hardware
- Maintenance
- Supplies (Paper, Toner, Ink, etc.)

#### Hidden Print-Related Costs

- Storage / Extra Footprint
- Burden on IT Helpdesk and Support
- Time-Consuming Procurement and Administration
  - Fragmented Purchase Decision-Making
  - High Device Variety (Brands and Product Types)
- Environmental Sustainability — Power Consumption and Waste
- Organisational Productivity

Source: IDC, 2011

## Managing Costs

In managing print-related costs, companies often only include hard quantifiable "known" costs, with no reference to "hidden" but important costs that are more difficult to identify (see Figure 1).

**Hard known costs — direct, quantifiable, measurable costs related to:**

- General office hardware
- Maintenance
- Supplies

**Hidden costs — less obvious hard costs and softer costs associated with:**

- Storage/footprint
- IT service desk
- Procurement and administration
- Environmental sustainability
- Organisational productivity

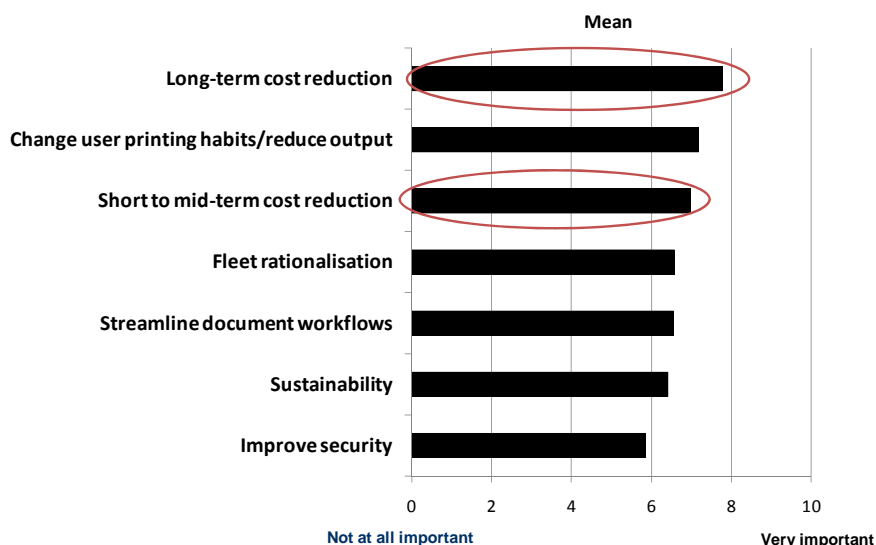
This paper examines each of the hard known and hidden cost elements, highlighting the impact they have on organisations and the benefits that MPS adoption offers.

IDC used a variety of its research sources, including several IDC end-user surveys of IT decision makers and specifically of MPS decision makers (see Sources).

It is evident that managed print services provide an effective way of both reducing the overall cost of print-related activities and managing future associated expenditure. 70% of European MPS survey respondents indicated that "cost cutting" was the most important MPS adoption driver<sup>(8)</sup>, understanding that they needed to address and control previously unmanaged print-related activity (see Figure 2).

**FIGURE 2**

MPS Adoption Drivers



Source: 2010 IDC European MPS Study, N = 477

## ***Hard Costs***

### **General Office Hardware:**

**Reduce your device fleet by 25% to 60%, turn hardware provision into an operating expense and manage port security**

Typically, having reviewed the print environment and through hardcopy fleet rationalisation, an MPS provider can reduce a company's device fleet by 25% to 60%<sup>(5)</sup>, removing capital assets from the company balance sheet. An unmanaged printing environment can result in a plethora of underutilised devices. Without clear visibility of existing print hardware assets and an assessment of what products are needed at which location, according to output volumes and required functionality, companies cannot optimise their investment in hardware and are acquiring more devices than needed.

Some MPS providers can also assume ownership of equipment under an MPS contract; removing hardware devices from the balance sheet completely (see Case Study 1). As a result, hardware provision becomes an operating expense, with the potential for companies to divert more capital expenditure to support business transformational activities.

Lack of control of other print-related infrastructure expenditure, such as costs of network ports, and no visibility of utilisation rates, can lead to unnecessary additional purchases. Failure to identify network ports also constitutes a security concern since companies need to be able to rapidly identify a network port for a particular device when the company's firewall is being threatened or where there is unauthorised equipment plugged into the network.

### **Maintenance**

Product maintenance — both where IT personnel are required to provide a solution and where an external engineer needs to be called — is not just a time-consuming exercise; in many cases, the cost associated could be avoided or vastly reduced. Proactive hardware monitoring and maintenance are critical to optimising device uptime and ensuring continual organisational productivity (see Case Study 2).

### **Supplies**

The procurement process for supplies (toner and paper) suffers similar challenges to the hardware procurement process. Given that supplies can cost between two and four times hardware costs over the life of the hardware device<sup>(11)</sup>, control of supplies spend is a key parameter in managing the total cost of printing. Companies with a hardware fleet comprised of multiple brands run the risk of ordering excess toner and paper from a variety of sources, in an attempt to ensure supplies are never fully depleted. By adopting MPS, ad-hoc purchasing is replaced with a proactive process that takes advantage of economies of scale, providing further reductions in supplies expenditure and storage requirements over and above those achieved purely through device rationalisation and optimisation.

## ***Hidden Costs***

### **Storage/Footprint**

An unmanaged print environment can frequently result in the ineffective use of storage capacity and office footprint:

- ☒ Significant use of valuable physical onsite storage space to house the supplies inventory for multiple devices
- ☒ Use of expensive office space — pre-MPS, hardware devices accommodate substantially more footprint in the office than necessary

Transferring management of the print environment to an MPS provider has several clear benefits:

- ☒ With proactive maintenance and supplies replenishment, an MPS provider can reduce a company's supplies inventory and associated physical storage capacity.
- ☒ Post-MPS, the device fleet can be reduced by up to 60%<sup>(5)</sup>, saving valuable office space that could be better used for more critical company activities. In reviewing and rationalising central reprographics departments (CRDs) or print rooms, significant space can be saved in closing underutilised facilities. In one case, print environment assessment resulted in significant cost savings from the closure of four reprographics departments of a global professional services organisation located in a city centre.

#### **IT Helpdesk and Support:**

##### **Reduce print-related helpdesk calls by up to 14%**

The average cost of a helpdesk call is between \$20 and \$25 (€14 and €17), and between 35% and 50% of helpdesk calls are print-related. For a company with 10,000 employees, the total cost of print-related helpdesk calls can be in excess of €890,000 pre-MPS. Post -MPS, 10% cost savings can easily be achieved.

An IDC survey revealed that less than a third of organisations track the IT helpdesk and support costs associated with printing and most do not use Web and network tools to manage hardcopy devices<sup>(3)</sup>. In 2010, IDC interviews with MPS customers revealed that MPS implementation resulted in a 7% to 14% reduction in print-related help desk calls<sup>(8)</sup>.

#### **Procurement and Administration**

In many organisations, there is no central print policy, which often leads to a fragmented approach to hardware-related procurement. The IT manager is often responsible for any network print device, whereas an office or facilities manager may hold the budget for standalone devices, as well as supplies replenishment. Companies also increasingly manage a growing number of mobile workers, who currently represent a fifth of the European workforce, and will represent almost a quarter of the European workforce by 2013<sup>(6)</sup>. A lack of control over procurement results in home workers buying their print-related hardware and supplies from expensive outlets.

Adding to this complexity is often the need to manage a variety of supplier relationships. Opting for a single brand of device may seem like the answer to simplifying the procurement and invoicing process, but this is not a cost-effective option where organisations have relatively new and efficient devices in the hardware fleet. Post-MPS, these products can be optimally utilised and responsibility for managing multiple supplier relationships is transferred to an MPS provider.

With MPS adoption, the services provider assumes responsibility for managing the requirements of onsite and offsite employees, handling multiple supplier invoices,

slashing internal invoice processing time and reducing helpdesk interaction with suppliers.

### **Environmental Sustainability**

The printer industry has already put many measures in place to ensure that print devices are more environmentally friendly, endeavouring to constantly reduce energy and toner consumption. For many organisations, both the measurable cost savings associated with energy and supplies consumption and the opportunity to create positive PR through, for example, demonstrating a corporate social responsibility policy and consequently enhancing corporate image, are highly valuable (see Case Study 4).

#### *Power Consumption*

Electricity consumption for office equipment in the services sector alone accounts for 11.4% of total sector electricity consumption; specifically, €9 billion, according to EU ENERGY STAR research. However, office equipment can provide the highest potential savings of up to 50%<sup>(15)</sup>.

Newer products will typically use less energy (a reduction of 30% according to IDC research) and consume less toner (up to 20%) than legacy devices. As part of the first phase in preparing for MPS adoption, the process of fleet rationalisation and optimisation will eliminate less effective devices, resulting in a reduction of up to 60% in devices<sup>(5)</sup> and lower overall energy consumption.

#### *Waste*

Costs associated with toner and paper waste are significant, especially when documents are printed and never collected. Pull printing or FollowMe printing can significantly reduce waste by requiring a user to activate a print job at a device by entering a personal user code, or swiping an ID card. Through the introduction of pull printing, a financial services company reduced overall printed output by 15%–20% per annum<sup>(3)</sup>.

- ☒ Paper consumption can be significantly reduced by moving from single-sided output to default double-sided output
- ☒ Implementing default monochrome printing and choosing colour, where relevant, can help to both reduce and control supplies consumption and unnecessary colour output.
- ☒ Better employee education about the cost of printing and recommendations on which document types to print in which format can prompt employees to change their printing habits, the latter being one of the major MPS adoption drivers<sup>(6)</sup>.

A UK university producing 60 million printed pages per year introduced default duplex printing as part of its MPS implementation, realising a significant reduction in paper consumption and associated costs. IDC estimates that by implementing both default duplex printing and pull printing, this university reduced its overall paper consumption by approximately 60% and costs from approximately €400,000 to €240,000<sup>(16)</sup>.

### **Organisational Productivity**

A company's failure to better manage and monitor its print environment has a direct impact on productivity. For example:

- ☒ Reduced employee productivity when devices don't meet requirements reduces a company's ability to realise and optimise return on investment in print services (see Case Study 5).
- ☒ Companies with a central reprographics department (CRD), need to ensure that changing company requirements are reflected in the existing CRD facility and to ensure full utilisation. Poor management and a lack of staff training frequently results in print jobs that could and should be fulfilled by the CRD being externally produced at an additional cost to the organisation. Today, for example, approximately 49% of a company's total colour print volume is generated from a CRD, with an additional 15% outsourced to a commercial printer<sup>(16)</sup>. Where external services are required but the external relationship is not managed, companies run the risk of missing out on benefits of economies of scale; various departments will approach commercial print providers directly and submit print requests individually. As part of an MPS agreement, the CRD should be assessed and optimised, potentially reducing the use of external print services in favour of the CRD, and even reducing the number of CRDs across different company sites.

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## Assessing the Print Environment

The case studies in this White Paper all show the importance of print environment assessment as a basis for MPS implementation. Only by understanding the existing situation can an MPS provider make the right recommendations to optimise returns on MPS investment and realise dramatic total print-related cost savings. In 2009, just over 20% of European MPS survey respondents indicated that they used third-party or industry benchmarking data to assess their print environment<sup>(17)</sup>. In a series of interviews with predominantly international companies, most attempts at in-house assessment had proven inaccurate, and consequently either a third-party assessment was commissioned or companies faced the cost of non-optimised MPS benefits based on inaccurate in-house data (see Case Study 6)<sup>(3)</sup>.

As part of a full print environment assessment, companies need to:

- ☒ Physically walk through each office location to map device locations
- ☒ Conduct interviews with employees to better understand requirements
- ☒ Examine invoices and other finance records for printing/imaging
- ☒ Include an assessment of centralised print room facilities and outsourced printing services

According to European MPS users, although many MPS providers conduct the first two steps above, only a third of users indicated that financial records were examined<sup>(8)</sup>.

## Summary and Recommendations

Cost savings are the main driver for MPS adoption.

Companies need to be able to identify and measure all print-related costs as a baseline against which the benefits of MPS, in terms of quantifiable cost savings, can be measured.

MPS providers must consider needs across the organisation — the general office, within the CRD, and external commercial printing environments — making informed decisions based on a holistic view of a company's overall print-related activities.

### *First Steps in Engaging With an MPS Provider*

Determining the MPS provider selection criteria and actual MPS contract components are important parts of the process, but attention needs to be paid to the basics. A potential MPS provider must be able to:

- Provide a thorough and accurate total cost of printing assessment, identifying the hidden costs as well as the more visible hard costs accurately
- Provide comprehensive recommendations to optimise the print environment, reducing cost and complexity
- Manage and maintain multiple brands of device at least until the end of the devices' product life
- Determine the criteria by which benefits can be measured, whether they are related to percentage hard cost savings, identification and optimisation of more hidden costs, or measuring the impact of softer benefits
- Measure costs over time and realise costs savings

A company can only review and assess the ability of an MPS provider to deliver cost savings if actual costs have been accurately determined pre-MPS and parameters for measurement are in place as part of the MPS contract. Investments in MPS must be justified through guaranteed significant returns.



## **Case Study 1: Far-Reaching Benefits Achieved With MPS Adoption<sup>(9)</sup>**

### ***Challenge***

A global professional services company wanted to implement a single outsourced managed print service, based on a cost-per-page model and incorporating general office, centralised in-house print and outsourced print requirements.

### ***Solution and Key Benefits***

Xerox implemented an end-to-end print service, rationalising the print environment and implementing systems to continually monitor, analyse and report on usage at individual employee and device level. It also enabled online submission of print jobs. The key benefits were:

- The transfer of capital assets (both equipment and staff) to Xerox, removing them from the customer's balance sheet
- Total cost of printing fell by 29%
- 44% reduction in number of corporate print rooms
- Reduction of 10%–15% in external print procurement spend
- Optimised device uptime
- A reduction in helpdesk calls of 51%
- 100% recycling, in line with the company's environmental objectives
- 18% reduction in print volume per employee
- 25% improvement in priority bid document turnaround time

## **Case Study 2: Proactive Maintenance Helps to Increase Device Uptime and Company Productivity<sup>(10)</sup>**

### ***Challenge***

The European Patent Office required better management of the 100,000 paper-based patent applications received each year, with an annual office print requirement of 200 million pages across four countries.

### ***Solution and Benefits***

Xerox introduced a full managed onsite centralised helpdesk providing international support. With continuous remote monitoring and proactive maintenance:

- 70% of incidents could be resolved before users became aware of the problem.
- Device availability targets of 98% were realised.

**Case Study 3:  
40% Reduction in Helpdesk Calls Through Product  
Rightsizing and Outsourced Support<sup>(13)</sup>**

***Challenge***

One of the world's leading mobile phone manufacturers has 50,000 employees in more than 70 countries. It required a flexible infrastructure that provided mobile workers with easy print options, but with careful attention to cost control at the same time. It already understood the value of using its resources on its core competences and outsourcing support services such as the IT helpdesk, IT network and data centres.

***Solution and Benefits***

Xerox conducted a detailed analysis before MPS adoption, with the following benefits:

- Three regional Xerox service delivery centres deliver global 24 x 7 helpdesk support, resulting in a 40% reduction in the company's calls to the service desk
- 65% reduction in devices, taking assets off the customer's balance sheet
- Shortlist of 12 product configurations for the company's 300 offices
- Introduction of employee portal with easy access to devices without the need for print servers

**Case Study 4:  
BT's Sustainability Policy Results in Cost Benefits and  
Enhances Corporate Image<sup>(14)</sup>**

***Challenge***

British Telecom has been setting itself carbon foot print targets going back to 1992, and aims to reduce the carbon intensity of its total business by 80% by 2020. It has achieved 54% by becoming more energy efficient.

***Solution and Benefits***

By implementing Xerox's Managed Print Services, BT will:

- Reduce its carbon footprint by 50%
- Save £10.4 million over four years on office printing
- Realise 40% savings on reprographics

## **Case Study 5 Significant Improvements in Productivity at Procter & Gamble<sup>(17)</sup>**

### ***Challenge***

Procter & Gamble (P&G) employs 135,000 people across 80 countries and had 45,000 devices at an average of one device for every four employees. It had no print policy, and its 200 facilities worldwide could acquire their own devices and related supplies.

### ***Solution and Benefits***

Having assessed print activities in terms of document-driven processes with the objective of enabling employees to work more efficiently and securely, Xerox implemented MPS, which resulted in a more efficient process and in:

- Time savings of 200 minutes per employee
- Saving device administrators' 650 minutes each annually
- Process improvements equating to a saving of 138 business days annually

## **Case Study 6 The Pitfalls of Do-It-Yourself Print Environment Assessment<sup>(3)</sup>**

### ***Company Challenge***

An international legal company had grown through acquisition and partnerships and had inherited a multitude of product brands from various sources. It wanted to manage its capital assets better and reduce the time taken to conduct administrative tasks related to these devices.

### ***Solution***

The company decided to conduct its own print environment assessment and base its findings on its MPS requirements.

### ***The Results***

The MPS provider was not given the right set of information to meet the requirements of this company. Although 10% cost savings were made, there was a much greater need for maintenance than anticipated, and the provider needed to offer additional resources, until it could actually provide a more thorough and accurate assessment.

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## Sources

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9. Xerox Case Study: *Managed Office, Central and Procured Print as One* — Global Professional Services Firm
10. Xerox Case Study: *Deliver Exceptional Print Service, Simply* — European Patent Office
11. IDC estimates that for a monochrome midrange (31–44 ppm) workgroup laser multifunctional product with an average monthly print volume of 4,500 pages, consumables may cost from 2.2 times the cost of the hardware over a three-year contract and up to 3.6 times as much over a five-year contract.
12. Assuming the average employee generates 15 helpdesk calls per annum at a cost of €17, assuming that 35% of the calls are print-related and that there are 10,000 employees in the organisation.
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15. EU ENERGY STAR — electricity expenditure on office equipment based on a rate of €0.10/k Wh, total direct (76 TWh) and indirect (14TWh). Includes EU 15.
16. Assuming 15% duplex output pre-MPS, and post-MPS 60% duplex output and an average 15% reduction in output due to pull printing (IDC 2010 European in-depth interviews). Also assuming €0.72 per sheet of paper.
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