



The True Cost of Printing

The IT Manager's Guide to: Waste Reduction & Cost Efficiency

October 2009

Contents




1. EXECUTIVE SUMMARY	3
2. INTRODUCTION	4
3. WHO'S IN CHARGE OF PRINT OPTIMISATION IN YOUR ORGANISATION	5
4. FOLLOW THE MONEY	6
5. A MOUNTAIN OF WASTE	8
6. KNOWLEDGE IS POWER	9
7. DON'T PUT THE FOXES IN CHARGE OF THE CHICKEN COOP	10
8. CREATING A CULTURE SHIFT THROUGH TECHNOLOGY	11
9. CONCLUSION	12
10. APPENDIX	13

1. Executive Summary

Implementing a waste monitoring print management solution can reduce printing spend by at least 20% - Doxense customer

The aim of this whitepaper is to highlight the inefficient printing habits which are rife in UK organisations and the cost savings and environmental benefits that can be harnessed through proper print management.

It is designed to address the needs of three distinct audiences;

-  those who do not know they have a problem
-  those who are aware there is an issue but are unsure of the next steps to take
-  those who have already taken steps to address the issue (such as a printer refresh and consolidation) and are looking to make further savings





In the UK, 20% of all printer material is thrown away without ever being readⁱ, up to 3% of a business's revenue will be spent on printingⁱⁱ and over 30% of calls to the helpdeskⁱⁱⁱ will be print related. In fact, a 2008 report from Info Trends/Cap Ventures goes as far as suggesting that printing costs could represent up to 6% of revenue^{iv}. Reducing your printing costs can therefore make a *significant* impact on the bottom line.

Many businesses will carefully manage the supply chain for all devices and consumables centrally, *optimising the supply chain but not the printer use*, but fail to actually tackle the source of the problem - the creation of waste.

Watchdoc is Europe's leading print management solution and came to the UK in March of 2009. By monitoring, tracking and reporting on the print estate usage and the associated costs it allows a customer to understand their actual print requirements, identify areas of waste and use their print environment more effectively.

The software can then be used to create very granular policies to target those areas of inefficiency and waste and monitor the impact and savings. In addition to this cost saving the software also allows for chargeback to cost centres, printing to the nearest networked printer automatically and monitor the status of networked devices for paper, toner, ink, power mode and errors making overall management of printing an easy and manageable task.

This whitepaper will delve deeper into the print waste issue showing how you can:

-  optimise your printer estate to ensure you are gaining the most value from your printing hardware
-  identify and dramatically reduce waste by raising awareness of printing issues within your organisation
-  create a culture shift towards more responsible printing
-  reduce your printing expenses by over 20%

Watchdoc typically delivers a Return on Investment within six months

To find out how, read on...

2. Introduction

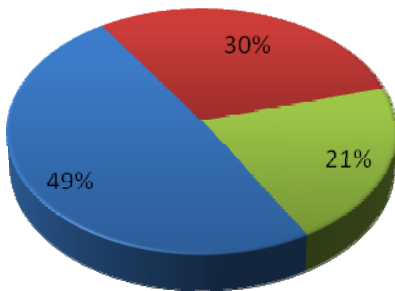
65% of print-outs and photocopies, many of which could be read on screen, land in the bin before the end of the day” Mandy Haggith, European Environmental Paper Network (EPPN)

This will undoubtedly be a critical few years for companies and seemingly small cost efficiencies can make big differences, possibly meaning make or break for some organisations. Most companies are searching for ways to decrease costs; however, printing often falls under the radar.

Perhaps print consumption does not instigate a heated debate at every board room table, but when you consider the facts, printing suddenly starts to look a lot more interesting - particularly if you are the financial director.

Gartner estimate organisations spend 1-3% of revenue on printing. In 2004 both Gartner and Forrester made consistent predictions, highlighting the need for companies to take control of their print estates, and as a result many have taken heed.

- True cost with Watchdoc
- Reduction through I/I/W consolidation and refresh
- Reduction through print policy management



Today, there is more awareness of printing issues and vendors have taken the issue to heart, developing highly effective Multi-Functional Devices (MFDs) that dramatically reduce the cost per printed page, energy consumption and the number of machines needed in an office. According to Gartner, MFDs can reduce printing costs by up to 30% and energy costs by up to 50%.

This is an impressive start, delivering a positive impact on the environment, but the story should not end there. Most companies have yet to maximise potential for cost saving by taking sufficient steps to address the root cause of the problem. Why not just print less to begin with?

Implementing a waste monitoring print management solution can further reduce printing spend by up to 20%. Therefore by combining these actions, print spend can be reduced by over 50%, which could be as much as 1.5% of total revenue.

If you want to find out how to decrease costs, improve efficiency and reduce both waste and power consumption and your impact on the environment keep reading...

3. Who's in charge of print optimisation in your organisation

"It [printing] tends to get overlooked because it's not sexy or upfront" - Don Dixon, Gartner's research director for printing markets





In some organisations printing is not perceived as a priority and can often go overlooked. Despite the fact that printers play a critical function in organisations, costs are often accepted and not investigated closely.

The low cost of acquisition can lead to an inefficient proliferation of devices, resulting in an organisation being unaware of how many actual assets it has and how these devices are being used.

A 2004 survey commissioned by Lexmark showed that board-level managers are alarmingly ignorant about the cost of print. Overall 61% of finance directors had no idea at all of the cost of document production in their business. This increased to 71% for firms with a turnover of more than £20m.

Often printing costs are not questioned. Printing is considered to be a necessity rather than a luxury. As a result many finance directors neither plan to cut print costs, nor do they see document production costs as critical to financial budgeting.

However, taking control of the print estate can help organisations to:

-  drive down costs
-  improve organisational efficiency
-  help the environment & the green agenda
-  improve cultural and operational issues

The problem often lies in the fact that in many organisations the printer estate is not centrally managed. I.T. management may specify the printer models and purchasing departments may source them at the lowest cost, but who checks if the printer is actually needed or what policies are in place to track and allocate costs? If a user requests a new printer, how does the business make a decision? Is there another printer that can be re-allocated? What use would that printer be put to? Is it the right device for the job? Is this the best solution for the business as a whole?

This lack of control and management produces an environment where cost and waste can grow exponentially with little or no control. For a waste reduction programme to be successful there is a need for someone in the organisations to take ownership of the problem, to install a decent print management solution to monitor device usage, and to fully optimise the print estate.

Read on to find out how you can do this...

4. Follow the money



Behavioural research for the printer manufacturer Xerox found office workers throw away 45 per cent of everything they print within a day, equivalent to more than a trillion pages every year. (2007)

Vendors have effectively publicised the numerous benefits that can be reaped from consolidating printer estates and installing MFDs. In Q1 2009 sales of colour MFDs led the global printer market with sales growing 6% annually. According to IDC's MFDs dominate the market with a 62% share and 16.3 million units shipped in the quarter^v.


However, when making a printer purchase, buying criteria is often disproportionately influenced by the initial acquisition cost of the hardware. HP estimates that the average company's printing costs amount to £436 per employee per year, but the hardware costs are relatively small. Here is a breakdown of the costs (over a 36 months period of use according to Gartner Group).

Direct Cost:

However, taking control of the print estate can help organisations to:

-  **Hardware** – the actual cost of the hardware makes up just 5% of the total cost of ownership for a device
-  **Consumables and support/Maintenance** - this amounts to 45% of the total cost of ownership and include: toner cartridges, drums, energy, ink and paper, which are referred to as the consumables. But also the direct cost of service such as extended warranty, spare parts drive down costs

Indirect Costs:

-  **Support and Maintenance** – the actual cost of the hardware makes up just 5% of the total cost of ownership for a The largest one with 50% of the TCO. There can be huge efficiency losses should a device break down causing people to be unable to print, or lodging calls to the help desk, or clogging up the network. According to IDC more than 30% of calls to helpdesk are concerning printer cases^{vi}. We are talking here of lost productivity, lack (and cost) of training, overall management, all taxes, Added to that there are the physical costs of either paying for a maintenance contract, which will be more expensive depending on how much you print, or you can risk it without (although in the event of a machine breaking it can cost £100 per service call).

Almost every business focuses on the capital purchase of the printer infrastructure and a much smaller number focus on the running costs. In effect this results in the management of a very small percentage of the overall costs being controlled. A print management solution can help a business addresses the other 95% of the costs in one step.

In reality, the costs incurred from printing are actually driven by the users themselves. If a user can access a colour device then they will usually print a large proportion of their documents (email, Word, PowerPoint, web etc) using the most expensive settings. Colour printing is increasing by 35% per year, with a unit cost over 8 to 10 times higher than a black and white printed page. However, disabling colour printing en masse is not a viable solution, as the use of colour is a valuable communication tool and is critical for some documents.

Fujitsu Siemens Computers found the average British office worker prints 22 pages every working day and more than half admitted to having printed the same document several times by mistake. Two in five have picked up someone else's printout by mistake and 8 per cent admit to printing emails before they've even read them.











To impact the overall cost of printing documents, the behaviour of the user needs to change. Installing a print management solution can help to make users aware of their printing use. Having the ability to alert a user about the impact of their actions can enable a move to more 'responsible printing'.

A Lexmark survey, "State of printing" 2009 reported that more than three quarters of 10,000 respondents said they feel guilty about wasted pages, regardless of home or office, and 85% said they would opt for an environmentally conscious printing option if one was available. Therefore by giving users awareness of their actions and 'personal responsibility', they can then make better choices about their printing and drive more responsible printing behaviour. This in turn drives down waste and the associated costs and impact on the environment.

5. A mountain of waste

“An average person prints 31 pages per day and more than a third are thrown in the bin without being read”^{vii}

The UK are the worst offenders in Europe^{viii}

-  in 2005 the UK consumed 12.5 million tonnes of paper, of which 7.6m tonnes were imported^{ix}
-  the UK is the worlds 5th largest consumer of paper products and 4th largest importer of forest products^x
-  in the UK a company with 500 employees spends £42,000 on wasted prints a year
-  research shows that paper and printing equals 33% of office waste^{xi}
-  making a tonne of paper requires 98 tonnes of other resources^{xii}
-  making a tonne of paper uses as much energy as making a tonne of steel^{xiii}
-  deforestation causes more climate change emissions than global transport^{xiv}
-  in industrial countries, the paper industry is the biggest user of water^{xv}
-  45% of all print-outs and photocopies are binned before the end of the day^{xvi}
-  British offices print up to 120 billion pieces of paper every year, the equivalent of a paper mountain more than 8,000 miles high^{xvii}

Needless printing undoubtedly has financial repercussions, but environmental concerns also need to be addressed, printer consolidation and outsourcing alone will not deliver the complete solution. Personal responsibility and accountability of those using printers is fundamental.

The economy is focusing attention on cost saving in all markets. Business decisions regarding environmental impact rely on a strong return on investment element.

Green issues are still hot on the agenda for many organisations. Being environmentally friendly can boost a company’s market appeal and act as a differentiator against competitors. Many organisations proudly brand themselves ‘green’, and having evidence of projects and savings that you have made can make good for marketing campaigns and result in positive PR. Therefore print reduction also provides a company with a good chance to show off its green credentials.

Additionally, it can be an incentive to a company’s employees. Getting staff involved in making the business greener and the office more energy efficient can motivate and cement a sense of a team environment. This could also help in recruiting the best staff, as it gives an impression of the organisation as a caring company.

Traditionally becoming more environmentally responsible has meant an increase in spending. The latest generation of technology that target waste provide a immediate cost reduction that also results in a measurable reduction on the environmental impact. Print management solutions are a prime example of this. A project to understand, target and track areas of waste save valuable cash straight away and provide a reduced environmental impact. In summary - reduced waste equals less cost and lower waste and CO2 emissions; it is possible to have both.

6. Knowledge is power

“90% of companies don’t have a clear picture on their printing or copies consumables”^{xviii}

Methods to target print costs include:

1. Printer consolidation

Remove older, more expensive machines and reallocate the remaining estate

2. Printer refresh

Refresh the entire printer estate with new, faster, cheaper machines

3. Outsource contracts

Pay a flat fee to buy a print service

4. Pay per click contracts

Take a number of high volume printers from a supplier on a contract, payment is invoiced per page printed

5. Printer management software

Manage usage and printers centrally to reduce costs and increase service levels to end users

6. Printer policies which reduce waste

Educate the users on the impact of printing and put policies in place to encourage best practice

Only option 6 will actually reduce the amount being printed, all the others target the cost per page. If you print a million pages a month, as a business you’ll still pay for the 20% of pages produced in error and wasted.

Why specify a solution to handle the pages you shouldn’t be printing in the first place?

At the core of the solution there should be a shared ethos regarding the professional, accountable print decisions of all employees. Companies should take control of the printer estate and its costs by understanding current use and costs then evaluate the solutions implemented.

7. Don't put the foxes in charge of the chicken coop

North Americans and Europeans use more than 200kg of paper each per year, while the average African uses just 6.5kg^{xix}

Information is power. When taking on a project such as this, the first thing a company needs to do is work out what they already have by taking a vendor independent inventory of devices and establish methods of measuring the usage of consumables and waste for monitoring purposes. This information can then form a baseline from which to measure the effectiveness of the printer project.

Often vendors will offer to come into an organisation and do this, they will look at what you print and offer solutions according to your requirements. However, they want you to buy more devices and print more, it's their business model. This means getting an independent evaluation on how the devices are being used, not just the actual amount of printing produced, is crucial to you getting the right assessment for your requirements.

Through monitoring your print environment and the waste produced to identify its quantity, its type and the environmental effects, you can effectively identify and cut out the waste, allowing you to set targets and support the printing that's actually needed, and not buy expensive infrastructure for the printing that isn't.

In a tender process the vendors and service partners will produce a proposal based on a requirement from the customer where large portions are assumed or estimated, often they will use their expertise to propose a solution when the customer does not have a clear picture of their printing requirements.

The most effective strategy is to approach prospective print vendors with a clear understanding of the company's real print profile and requirements. An ideal project plan would include:



8. Creating a culture shift through technology

Watchdoc can save companies over 20% of their printing costs by reducing waste and driving efficiency, typically delivering RoI in less than six months

At the heart of the issue are the cultural and operational issues surrounding printing. A YouGov poll of 2,011 adults showed that fewer than half of office staff say they are careful about printing documents and avoid printing hard copies unless absolutely necessary. A quarter admit not giving much thought to printing documents and a further 13 per cent do not worry about how many documents they print as long as they recycle them. Only 16 per cent of workers said that their company emails carry a footnote asking the recipient whether it is necessary to print out the email, and only two-thirds of companies provide recycling bins for paper.

In another study from Lexmark, “State of printing” (2009)^{xx}, it identified that more than a third of the 10,000 respondents surveyed, said they feel guilty about wasted pages and 85% said they would opt for an environmentally conscious printing option if one was available.

However the survey also found that while 58% extensive paper waste in their office, only 26% see themselves as personally contributing to this. This demonstrates the need for employees to take ownership of the waste issue and recognise their personal stake in improving the situation.

Watchdoc is fundamental to help in this process. Information gathered by Watchdoc can create very granular policies and procedures to target specific areas of inefficiency and waste, then continually monitor the impact and savings.

Policies and procedures can drive, implement and monitor changes in behaviour. Watchdoc facilitates a culture shift regarding printing. It helps organisations to take responsibility for their printing habits and associated costs, reducing energy and water consumption. Return on Investment (RoI) for those organisations that have implemented Watchdoc, in most cases, is under six months.







Watchdoc can deliver improved operational efficiencies. In addition to this cost saving the software also allows for chargeback to cost centres, printing to the nearest networked printer automatically and monitor the status of networked devices for paper, toner, ink, power mode etc. making overall management of printing an easy and manageable task.

Additionally, while the cost per sheet on its own may not seem groundbreaking the cumulative results across an organisation can be both astounding and motivating when people see that a difference is being made and this is translated into genuine environmental savings.

9. Conclusion

Taking control of your printing is a valuable cost saving exercise, as well as being an environmentally responsible way of improving your brand and engaging your staff. As this paper has demonstrated, there are a number of steps which an organisation can take to bring these benefits to the bottom line and stop the senseless waste that can proliferate throughout UK organisations.














To recap, here are the key steps that companies looking to make the change should take:

-  install an independent print management solution to monitor your current printing habits and gather information on areas of waste
-  use a solution which can implement rules and settings to ensure your print estate is running as efficiently as possible
-  gain the buy-in from your employees by making them aware of their printing habits
-  keep a record of the savings that have been made and feed these back to employees to gain further support for the scheme and motivate staff
-  gather information about your printing estate and assess your hardware requirements
-  *then, if needed*, talk to a vendor about a printer refresh to ensure you are operating the most efficient and cost effective devices for your *actual* requirements

By following these steps you can make a genuine difference to the bottom line. You don't have to replace your existing printer estate to make significant savings, by understanding and targeting areas of waste and bad practice any business can save over 20% of its print costs.

To find out more about Doxense and how Watchdoc can help you to transform your print environment, please visit the website: www.doxense.com or to contact the UK team please call Lee Schofield on: +44 (0) 207 664 8879 or via email at: lee.schofield@doxense.com

10. Appendix

-  Lexmark Ipos Survey – 2007
-  Gartner
-  IDC “RoI Focus Shifts to Imaging and Output Infrastructure” – January 2004
-  Trends/CapVentures “Networking Document Solutions Forecast 2007-2012, Network Document Solutions Consulting Services” – August 2008
-  IDC “Worldwide Quarterly Hardcopy Peripherals Tracker” – 2005
-  Ipsos/Lexmark Survey “State of Printing in 2007” - 2008
-  Digital Publishing International
-  WWF website
-  Envirowise website
-  Waste Watchers website
-  Fujitsu Siemens Computers Survey Oct 2007
-  Green Efficiency Toolkit: Envirowise in collaboration with Environment Agency
-  WRAP Recycled Waste and the Environment 05/07

References

- ⁱ Lexmark Ipos Survey - 2007
- ⁱⁱ Gartner - 2004
- ⁱⁱⁱ IDC "RoI Focus Shifts to Imaging and Output Infrastructure" – January 2004
- ^{iv} Info Trends/CapVentures "Networking Document Solutions Forecast 2007-2012, Network Document Solutions Consulting Services" – August 2008
- ^v IDC "Worldwide Quarterly Hardcopy Peripherals Tracker" – 2005
- ^{vi} IDC "RoI Focus Shifts to Imaging and Output Infrastructure" – January 2004
- ^{vii} Ipsos/Lexmark Survey "State of Printing in 2007" - 2008
- ^{viii} Lexmark
- ^{ix} <http://www.digital-publishing.co.uk/statistics/paper-statistics.html>
- ^x <http://www.digital-publishing.co.uk/statistics/paper-statistics.html>
- ^{xi} <http://www.envirowise.gov.uk/>
- ^{xii} www.panda.org/paper; source links are available there
- ^{xiii} www.panda.org/paper; source links are available there
- ^{xiv} www.panda.org/paper; source links are available there
- ^{xv} www.panda.org/paper; source links are available there
- ^{xvi} www.panda.org/paper; source links are available there
- ^{xvii} Survey for Fujitsu Siemens Computers
- ^{xviii} IDC "Worldwide Quarterly Hardcopy Peripherals Tracker" – 2005
- ^{xix} www.panda.org/paper; source links are available there
- ^{xx} http://www.lexmark.com/lexmark/pressrelease/home/0,6930,204816596_653271419_1354628001_en,00.html