Printer fleet sustainability

AUSTRALIAN LEGAL SECTOR ALLIANCE

PROMOTING SUSTAINABILITY

Summary	
Cost to implement	$ Nil (the printer fleet replacement was under contract)
Cost savings	$72,000 p.a. (in paper usage)
Environmental impact/savings	7.9 tonnes of CO_2 per year Over 20,000 reams of paper per year 33% reduction in electricity consumption
Implementation Issues	*Staff engagement, procurement*
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Overview

By upgrading your firm's printer and multi-functional device fleet, you can not only save paper and energy, but also reduce your firm's electricity bills by a significant amount.

Programme details

In late 2008, DLA Piper undertook a complete review of its printer and multi-functional device (**MFD**) fleet. The purpose of the review was to identify opportunities for:

- Device rationalisation
- Reduction in document production costs
- Improvements in efficiency through the use of imaging, OCR and workflow tools
- Improvements in environmental efficiency through reductions in power consumption, use of paper manufactured from sustainable resources and the introduction of duplex printing as the default on all end user printer / MFD devices.

In the lead up to the fleet replacement, the firm's print habits and volumes were monitored and benchmarked to identify areas for improvement and to 'right size' the new fleet. This review was undertaken with the assistance of consulting firm Fulton Francis.

In mid 2009, DLA Piper undertook a complete replacement of its floor printer / MFD fleet and a partial replacement of its print room fleet. As part of this exercise almost all 'personal' laser printers were removed from the fleet and staff switched to using shared devices.

Post upgrade - Trends in Paper Consumption

Prior to the upgrade, the firm moved to the use of 100% recycled paper stock but later, as part of the fleet upgrade, changed to FSC (Forestry Stewardship Council) certified virgin paper as this was believed to be a more environmentally friendly alternative to 100% recycled. The main problem with 100% recycled stock being that it is not possible to know how the original source paper was manufactured. Currently the firm is trialling Natures Paper, which is manufactured wholly from wheat pulp.

Duplex Printing - currently 61.9% of all print jobs are now printed in duplex mode. The rest is printed either in simplex mode or 2 up / 4 up. The number of sheets of paper saved per month through the use of duplex printing currently averages 879,000 (1,758 reams). This equates to an annual saving in paper cost of $72,000.

Trees Saved - an average of 105 trees are saved per month as a result of the wide use of duplex printing (based on an average yield of 8,333 sheets of paper per tree, source information Conservatree). 1,260 trees a year are saved based on these calculations. From this we can estimate the carbon sequestered by these trees annually, according to guidelines provided by EnergyStar. Based on an average of 700 trees per acre 1,260 trees would take up 1.8 acres. An

acre of trees will store 4.4 tonnes of CO_2 per year. 1.8 acres is equivalent to 7.9 tonnes of CO_2 per year.

Device Rationalisation and Energy Efficiency

Prior to the fleet replacement, the energy consumption of the legacy fleet was measured over a 2 week period and extrapolated for benchmark purposes. CO_2 emissions per page of output were calculated to be 13.91 tonnes per 1,000,000 pages printed / copied. At that time, the firm was producing roughly 35,000,000 prints / copies per year.

The new printer / MFD fleet uses Ricoh's @Remote system to measure power consumption of all devices under various modes of operation. These figures were used to calculate the CO_2 emissions per page of output on the firm's new fleet. The new emissions levels were calculated to be 8.46 tonnes per 1,000,000 prints / copies, a saving of 5.45 tonnes of CO_2 per month or 39.2%.

Extrapolated further, this is a saving of 65.4 tonnes of CO_2 per year. To sequester the same amount of CO_2 would take 14.8 acres of trees. As a further benefit of the improvements in fleet efficiency the firm has realised a saving in electricity consumption of 33%.

More information

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- Natures paper: **http://www.naturespaper.com.au**
- Conservatree: **http://www.conservatree.com/learn/EnviroIssues/TreeStats.shtml**
- Energy Star: **http://www.energystar.gov**
- Ricoh's @Remote system: **http://www.ricoh.com/remote/**