Cutting printer costs

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KYOCERA

White Paper

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How much is your printing fleet really costing you?

Printing is a cost centre that is frequently overlooked by organisations. They look at printers and copiers purely as capital expenditures, ignoring the significant running costs associated with owning a fleet. The fact is, however, that printers and copiers probably represent a significant part of your ongoing operational expenses - typically 1-3% of revenue on average, according to industry experts - and there are significant advantages to properly evaluating how that money is being spent.

Using a very simple cost per page analysis, it may be possible to save 50% or more of your ongoing printing expenses.

If your organisation is like most, then you're probably spending far more on printing than you need to. If you've ever gone for the "cheap" option when buying printers; if you've ignored long term costs when making purchasing decisions; if you allow printing costs to be buried in departmental stationery budgets, then there's a very good chance that you're wasting a good deal of money.

The truth is that the cost of feeding a printer, copier or Multi Function Device (MFD) over the course of its lifespan is likely to far exceed the cost of buying it in the first place. In fact, it's likely that the initial purchase cost of a business printer will represent only a fraction, in some cases as little as 10%, of the money you spend on that printer over the course of its life.

For companies that see printer purchases solely through the lens of capital expenditures, this can be a big problem. They try to solve budgetary pressures by buying cheaper products or continuing to use older and less efficient devices, but find that all they're really doing is shifting the burden of costs from IT to other departments who have to pay for a printer with running costs that are higher than they should be.

It's an open secret that printer companies often rely on a "razor and razorblades" sales model. Some printer vendors will sell products cheaply and then, once the customer is hooked in, make large profits on the sale of aftermarket accessories, especially toner cartridges and drum replacements. It's an old trap in the printing game, and in many cases there is an almost inverse cost law: the cheaper a printer is to buy, the more it will cost you for every page you print.

The key to solving this problem is to factor running costs into printer ownership, and the easiest way to do that is to use a simple cost per page analysis. It's very useful for comparing new printers, but even using this model on your existing printers, you may quickly find that you can save money by reallocating your printing resources or even replacing older, inefficient printers with newer models.

Evaluating cost per page

In the late 80's, the Gartner Group research organisation developed a system called total cost of ownership (TCO) as a way of determining the true cost of a piece of technology. Gartner realised that the actual cost of a piece of technology over its lifetime was usually quite distinct from the original purchase cost.

It turns out that nowhere is TCO analysis more applicable than in printer and copier purchasing decisions.

For a typical workgroup laser printer, the purchase cost represents only a small percentage of the overall cost of the device. The major cost centre for office printing is actually the purchase of consumables such as toner cartridges and drums, which will typically comprise between 60 and 85% of a printer's TCO, depending on print volumes and usage models. The initial purchase price will often comprise only 10-15% of a printer's TCO, while other cost components include service, management, research, installation, shipping and disposal.

Of course, you may be looking at all that and wondering how knowable many of those elements are at purchase time. It's hard, for example, to quantify how much you're going spending on research or management, how often a printer experiences downtime, or how much printing speed affects staff productivity.

If that's the case, then it's useful to use a quick "back of the envelope" method to compare the cost of printers over their lifetime. Given the major and most readily quantifiable costs are printing and raw acquisition, an easy way to compare printers is to use a cost-per-page model and multiply that by the number of pages you expect to print. See: Calculate Total Cost of Ownership

Using this TCO model, a quick analysis of currently available workgroup printers reveals that there isn't a model on the market for which the running costs over its lifetime doesn't exceed the purchase price under any reasonable usage load. The model also reveals that the more that a printer is used, the more significant the cost per page becomes in the overall cost. This is especially true of high-coverage printing, (common in many colour printing jobs), where the rate at which you will burn through toner will be considerably higher than the advertised cartridge page yield (which is usually rated at a conservative 5% or 15% page coverage).

If you perform this kind of analysis on a range of printers, you will also quickly realise that costs of cheaper printers, such as personal inkjets, very quickly eclipse those of more efficient printers, even overtaking them within a matter of months. You may even find that simply getting rid of your older printers and replacing them with newer and cheaper to run printers will yield returns within a relatively short period of time. With that kind of potential for cost savings, it's really a no-brainer to keep costs per page in mind when evaluating your printer fleet.

Who has tried to reduce the cost per page?

One of the keys to reducing cost per page is to find a vendor that isn't trying to trick you into buying a cheaper printer unit with higher consumable costs.

Kyocera is one company that realised very early on that consumables comprised the lion's share of a printer's TCO, and it set about developing a printing system that used fewer consumables – this followed their decade old corporate environmental philosophy and had the outcome where their models are built very differently and are significantly cheaper on a cost per page level.

Kyocera developed more durable, more reliable components and a printing system that produces less e-waste and makes better use of consumables. The consequence of this development was a dramatic decrease in lifecycle costs for printers. The imaging drum in a Kyocera printer will likely last the life of the printer. Unlike some of its competitors, Kyocera does not throw out an imaging drum every time a user replaces a toner cartridge. Kyocera also uses cartridge-free technology, which means you replace the toner kit only resulting in less waste than their competitors. The upshot of that is a lower cost per page, and consequently a much lower lifetime cost for its customers.

As such Kyocera provides on their website www.kyoceramita.com.au/tco/ the only free and regularly updated Total Cost of Ownership calculator, which compares their products overall costs with most major competitors and their current and older models … or you can subscribe to some online services such as BLI (http://www.buyerslab.com/) or do all the calculations yourself!

Calculate Total Cost of Ownership

Determining a printer's cost per page is a relatively straightforward process.

First, you need to find out how many components of the printer need regular replacement, then find the cost and a page yield (that's how many pages it can print before replacement) for each. Then, for each consumable component, divide the cost of the consumable by its expected page yield.,.

For a simple mono laser printer with two consumable components (a toner cartridge and drum), the formula might look something like this:

$$CPP = \frac{\text{Toner replacement cost}}{\text{Toner replacement page yield}} + \frac{\text{Cost of drum}}{\text{Page yield of drum}}$$

With a cost per page, TCO can now be determined by a relatively simple formula. For each printer, copier or MFD in the fleet the TCO can be expressed as:

$$TCO = (\text{monthly duty cycle} * \text{expected printer lifespan} * \text{cost per page}) + \text{printer purchase cost}$$