

THE RECYCLER

Trade magazine for the toner and inkjet remanufacturing industry ~ making waste work

Remote working: Approved printers and collection challenges



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Depending on your job role, having access to a printer, copier or a scanner in your office is a right, a privilege or just something that is required to make your job easier. At least, that was the case until COVID-19 changed the way we work.

When millions of workers were instructed to work from home, IT departments scrambled to get systems in place to allow employees to “sign-in” securely to the business and access key folders, files and mission critical applications. Print was somewhat an afterthought.

Those used to printing pages to complete forms, gain authorisation or finalise reports were offered digital versions as an option but, not every scenario could remove paper from the workflow. For example, the Legal Officer reviewing and completing contracts, the Project Manager planning time allocations and the Designer proof checking artwork, all rely on the printed pages for their work. But how did they put in place a printing facility at home?

First question to their employer was who is going to pay for the facility? The quick answer was employee pays and submits an invoice for reimbursement. Not ideal if cash flow or credit is a problem for the employee. Second choice, the business buys the printers (transactional) and has them “drop shipped to the employee’s homes. A more convenient option for the business but still, problematic

if the purchasing and approval process is bureaucratic. Or the business contacts its MPS provider and they “add-on” a quantity of lower specification desktop printers to the

MPS contract (contractual). Probably the most convenient option for the organized business with the most control going forward. →

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Next question is who qualifies to get a printer at home? The answer to this question is addressed in a recent study entitled “The Future of the Office Survey (US): Keypoint Intelligence 2020”, which also contains a Western European component. The study identified that what and how American workers at home printed varied depending on the size of their employer.

Most American home printing was an attempt to replicate a paper-based office workflow with documents either printed and home and 1.) returned to the office by post, 2.) stored and filed when back in the office or 3.) scanned and emailed back into a digital workflow. Previous Keypoint Intelligence studies had also identified that the primary reasons to print were for permanent storage usually to fulfil a legal requirement, signature, approval or, to pass a hardcopy to a colleague. Document annotation, meeting notes and presentation reviews are other popular reasons to print.

Managers scrambled to put forward these typical justifications to IT managers for printers at home and IT Departments had few arguments against a solid justification. IT Services have, over the past few years, been implementing document workflow services which included standardized forms, approval processes and digital signature systems. Implementation of document workflows has expanded into almost all vertical markets with both bespoke and standardized offerings.

Many of these services are offered and implemented by the industries OEMs from their copiers and MFPs and are accessible from the end-user’s desktop. Documents can even be captured using apps which convert smartphone camera pictures to pdf’s and enter them direct into digital workflows.

Assuming that the employee with a business printing at home need was able to get through these justifications and was told to buy a printer, the next question was what to buy and from where? This was probably the most expensive option for many businesses.

When the home worker has latitude to pick what they want, brand preferences come into

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play, feature sets quickly become meaningless beyond does is print with good quality and quite quickly, can it copy, scan, maybe fax and, is it easy to connect to the home Wi-Fi? A secondary consideration is the cost and availability of supplies. Very few buyers were able to discover what it costs to print a page in colour, if you could easily turn off colour printing or, how to dispose of the empties.

If it were possible to go into a store then, the inkjet or toner discussion may have happened. But all the shipment reports

indicate that inkjet was the clear winner during European lockdown. We now have an enlarged population of home ink jet printers consuming volume from toner pages that used to be produced on highly specified, A3 copiers and MFP’s in offices. These inkjets are also responding to the increased demands of printing homework assignments.

The home office inkjet winners were Brother, Canon, Epson and HP, but only where they had inventory at the correct locations. Ink tank printers and MFP’s proved especially popular along with those offering supplies subscription service. The compelling argument for ink tank printer types was the high number of pages that can be printed from one fill of ink and the low cost of refill ink. Careful design means a mess free refilling experience, a critical issue for home users.

Between the HP Deskjet, Envy and NeverStop ranges the brand leader had inkjet and toner options with cartridges, ink tanks and a toner refill proposition. The instant ink option of paying a monthly fee for a commitment to print a specific number of pages proved popular because, users always have ink available. For many this was the first time the price to print a page was transparent and many, used to committing to similarly structured phone contracts, signed up.

Printed page costs vary with HP Instant Ink depending on how many pages you commit to print. The price could be as high as €0.03 (\$0.035) per colour A4 page

charged through a monthly subscription! HP NeverStop printers are only available as a monochrome device, with toner refill costs at €0.007 (\$0.008) per page based on standard page coverage and yield.

Throughout the pandemic, HP’s most popular laser printers have been their Color LaserJet Pro M479fdw and the HP LaserJet Pro M404dn, probably because of their powerful wi-fi connectivity, wide transactional availability, easy to find supplies and security upgrade possibilities. →



Epson UK's Alice Ramsden de Gomez, Consumer Product Manager said: "The demand for Epson's entire consumer range, including printers, projectors and scanners, has been extraordinary as the pandemic has unfolded." Epson claim that in Western Europe they saw a surge in demand for their Eco-Tank range, especially the ET27XX models as well as the ET-3750 and the ET-4750. Epson arguably had the most experience and range to win, they had been shipping ink tank products into emerging markets for several years and understand this market. The refill ink per color printed page price for the Epson ET-3750 is €0.006 (\$0.007).

Brother also recorded higher than usual sales for their cartridge-based printer and MFP ranges, probably due to their strong channel presence in the micro and small business markets.

That leaves Canon with their Pixma and Maxify ranges. It was these cartridge-based ranges that were readily available on the shelves across Western Europe, but Canon quickly responded to demand adding MegaTank products to the Pixma range. The Canon MegaTank ranges offer high page yields from a single fill of ink at a colour page price of €0.005 (\$0.006), which compares well to transactional toner printed page costs and even some bulk ink tank competitors.

Where business did keep the home users buying decision in-house, a different

scenario emerged. Toner proved a more popular choice, probably because B2B printers offer a better integration into the extended office network than even the most advanced Business inkjet MFP's provide. Familiar workflow apps were often available for these devices, especially when scanning to cloud-based servers was required.

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Mono brand channel partners, dealers and resellers all struggled to find suitable hardware to offer home workers in the

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Winners in this segment were those brands which resisted the strategy of the last few years to build increasingly sophisticated A3 copiers with high duty cycles and then lock-in medium and large sized enterprises with complex MPS contracts and punitive exit fees. These copiers from Canon, KonicaMinolta, Kyocera, Ricoh and Sharp and Xerox are now experiencing changed operating patterns from workers who only irregularly visit the office for collaboration.

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product ranges of their copier type OEM partners. Fortunately, their vendors had printer-based alternatives available. But often, the printers on offer were too highly specified, the wrong footprint for the home environment or, very energy hungry.

Lexmark was typical of the OEM's with smaller footprint printers and mfp's who gained installations when Enterprise customers wanted a secure, networkable device with a manageable cost profile aligned to existing printing fees, to offer to home workers. →

Getting toner cartridges into the home office environment is not easy. Gone are the days of going to the local Staples or Office Depot for a new toner cartridge. Fortunately, page yields from toner cartridges are now high enough to keep home workers printing for many months. So, it's not a huge problem, yet.

IT Departments also know where these toner-based printers are and if they are mono, their printing costs are contained as personal printing is less attractive. If the IT department, or its MPS provider has sufficient sophistication they will also be able to monitor use in the home environment and ensure that automatic supplies replenishment happens on-time and, to the user's front door.

That brings us onto the problem of waste. Let's look at the Ink jet scenario first. Ink cartridges are a known entity. In the consumer public domain, local waste recycling centers used to be the default collection point but, waste transfer regulations stopped that activity. Now, the consumer can choose to:

1. Return the empty in a postage paid bag or box to the OEM. If the cartridge was obtained through a manufacturer subscription service this is probably the only option as the cartridge belongs to the manufacturer. They will have factored the costs of the cartridge into the subscription service and will be expecting its return! Users will probably use this method if they purchased from an on-line retailer, as well.

2. Take the cartridge back to the channel partner who sold the cartridge to the user. This is probably the simplest return method. If the supplies were purchased from a physical store. Taking the empty cartridge back is easy

as the retailer should have a collection process in place.

3. Donate the empty cartridge to a charity. This method is appealing to many consumers as there are numerous "good-causes" offering local collection points. The charity hosts a collection box or creates a collection point, and they are probably paid a fee for each cartridge returned.

Empty ink refill tanks are a different proposition because, these are typically

2. Return to an OEM repair facility. Some manufacturers use their local service centres to act a toner cartridge collection point.

3. Toner cartridge purchased from a catalogue supplier. Place the cartridge back its original packaging and seal the box. Call the supplier and request a return label, that is usually delivered with your next order of stationary. Label the box and request a collection with your next

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empty plastic bottles which can be placed into regular household recycling bins and recycled with household recycling waste.

Toner cartridges are different again and arguably, were not intended to be placed in the home environment. They are WEEE and therefore require licensed collection and transfer, are candidates for reuse, remanufacturing and ultimately, regulated disposal. Choices for the home toner cartridge user are limited.

1. Return the cartridge back to the office. Probably the easiest method if you occasionally return to the office. Simply repack the cartridge, take it into the office and leave it in a box with the other cartridge returns for collection by a licensed collector.

stationary order. A licensed collector calls and takes away the cartridge.

4. Return to a cartridge remanufacturer for reuse. Simply call your local remanufacturer and then ask if they will take your empty toner cartridges for reuse or remanufacturing. They may be able to help you.

All the OEMs will offer one or some of the previous consumer and B2B solutions. However, returning the empty cartridge will involve some effort on the end user's part. And therein is the problem.

In the office workplace there is an established process for collecting empty toner and ink jet cartridges with appropriate licensing and incentives to encourage returns depending on the collecting provider.

At home though, used cartridges are likely to accumulate. There will be many causes and reasons; "I forgot to take it back into the office with me." "It's in the back of the cupboard somewhere." "We were moving to a new house and found several in the back of the garage." I am sure there will be many more.

Making it easy for home used, ink and toner cartridges to re-enter the recycling, reuse and remanufacturing is a new problem. It is still looking for a solution. ■

