ISC DSG technical summaries
ISC DSG technical summaries, are a series of occasional papers which summarise discussion and comment from among our community of IT leaders. Each paper focuses on one topic of interest. Papers do not guarantee an exhaustive review of a topic, but merely present a collated overview of current themes, questions and areas of focus for IT leaders in participating member schools.

Printers and Printing

What printers and printing solutions do ISC member schools use?

Printing can be a very expensive item in school budgets, both in terms of aggregate purchase cost, down-time and maintenance, and consumables. Support and storage overheads also add to costs, albeit indirectly. Although schools' printing needs vary, it is not surprising therefore that numerous ISC schools have moved away from the traditional and expensive printer per classroom setup.

Many schools have removed the majority of desktop/local printers and replaced them with Multi-Function Devices (MFDs). While it is often difficult to convince colleagues of the benefits of this shift, but after implementation and a 'settling in' period, user sentiment has been positive owing to less device down time, improved functionality and a lower environmental footprint.

Benefits realised by schools include:

- Follow me printing – by pin/card
- Printing from mobile devices
- Faster printing (ppm)
- Scanning to email
- Printing zones – where students cannot access all printers
- Credit balances for students – students can purchase printing after an annual starting amount is finished.
- Reduce toner stocks
- Offer budget holders cheaper printer costs for printing via MFDs
- Overall reduction in printing costs (e.g. 50% or better)
- Provision of printing statistics
- A profile manager which resets devices to a default profile in a daily check
- Centralised management – allowing granular monitoring and accounting for printing inefficiencies
- Moving to a single supplier gives cost benefits, as does joining a procurement framework agreement (such as: https://www.lupc.ac.uk/join-us)

In implementing these solutions, IT staff have credited the following as helpful in leading to successful project implementation:

- Strong support from SLT (e.g. SLT moving from local printers to MFDs)
- Having allocation decisions made by an ICT Committee (incl. Bursars and T&L reps)
- A two-tier economy – e.g. standardising main MDF, with sporadic smaller devices where needed (e.g. at Dept level)
- Department level printers which are feature rich (e.g. hole punch/ stapler/ finishers)
- Placing MFDs in corridors (new locations, nevertheless close by)
- Ensuring users don't have far to walk (e.g. requiring people to walk up stairs is a barrier)
- Placement of printers does not pose any H&S issues

Some schools have a policy of a long phase-out of old printers – e.g. they are kept until they are no longer used or break. Thus, it can take a long time to remove old inkjets, it is an easier transition for staff.

To take full advantage of a management solution is also necessary. The most commonly mentioned solution is Papercut, however other mentions have gone to Canon's Uniflow solution also.

What devices are used

Analysis of discussions shows that schools vary in their needs and hence a range of devices are used. Notwithstanding, some manufacturers feature positively in discussions among network managers. These include MFDs by HP, Kyocera, Cannon and Toshiba.

Things to be aware of

Network managers discuss some previous problems and current concerns. These are summarised here; suppliers are not mentioned as they may have resolved past issues. Notwithstanding, these prior concerns may be helpful questions to ask when negotiating a new contract.

- Double check the reorder process (flexibility / speed of response)
- Do systems do not allow a spare toner cartridge to be held locally,
- Confirm that devices automatically call the supplier when there is a problem (the setup does not always work out of the box)
- How easy is it to manually reorder toner.

When investing in large and expensive printers, member schools have expressed concerns with:

- Physical location – these can be very large
- Heat, noise and vibration generation can be considerable
- Some locations causing H&S concerns
- Pooling resources in to an expensive item can represent a single point of failure

However, the benefits have typically outweighed the costs/concerns.

Exceptions to whole school printing policies

When considering a whole-school MFD solution, two key exceptions are Art departments and teachers who are unable to briefly leave classrooms, or can not send students to a printer (e.g. early years teachers who do not have a teacher aid in the room, or teachers supervising high risk environments e.g. laboratories / workshops).

In the case of Art and Design departments a range of devices are used, reflecting the unique needs of each department. An anonymised list of devices includes:

- A3 photo quality Epson inkjets
- A0 HP plotters.
- Colour Kyocera A3 MFD
- Cannon A0 printer
- 1 x Citizen Dye Sub printer for photo printing
- Smaller A4 colour lasers – used for quick drafts.
- Canon A3 colourjets for final pieces
- HP M880 MFP

It is not uncommon for the cost of consumables to be a departmental issue if they are outside of the main printing services. When in Art departments, Art technicians often look after printers.

Some member schools report that their Art departments are happy with standardised MFPs once they have been appropriately setup. The standard configuration is not always appropriate for Art Dept needs.