PaperCut

Students print anywhere with BYOD

Empowering students to securely print from personal devices to the school network, with little admin overhead (no driver installation).

500+ staff and students

Transition from school provided laptops to BYOD

Reduce high cost printers

Management Need

As a large boarding school with multi-building campuses, students work across a number of facilities, including off-site and returning home. Access to mobile technology is an essential part of learning in this environment, however high insurance costs proved cost prohibitive for school provided laptops.

The Solution

Rolled out Bring Your Own Device (BYOD) for staff and students, using PaperCut as a secure method of printing along with Web Print for easy accessibility and convenience.

Result

Created an ongoing strategy for secure BYOD printing from anywhere, while saving on expensive print machine leasing, consumables and the environment.

"Before PaperCut, management could see that there was a waste problem, but didn't know how to address it. The information that PaperCut provided allowed a holistic view for strategic thinking around print management that helped to target specific problem areas."

Jon Witts, Director of Digital Strategy

Customer Profile

School Queen Margaret's

Country England

Staff 214

Students 350

Website www.queenmargarets.com

Queen Margaret's, York est 1901, is the only all-girls' full boarding school in the North of England.

Managed as a fully independent company, receiving funds from their students (a large proportion of all year-round boarders, 85%), alumni and donations. The facilities and learning environment have earned Queen Margaret's a strong reputation for academic excellence.

Configuration

Product PaperCut NG

Installed 2008

Workstations 300, Windows 7

BYOD 700 Mac and Windows laptops, tablets and mobile devices

Printers Grayscale and Color

Networked 46

Desktop 150

Primary Server
Windows Server 2008 R2

Secondary Servers

In lab Windows Server 2008 R2

Web Print Sandbox Server Windows 7

Introducing BYOD

The IT team at Queen Margaret's understood the implications of introducing BYOD for students. Taking a phased approach, Jon Witts, Director of Digital Strategy, gave staff and Sixth Form students the green light to BYOD in January 2013. Support for students was done one year group at a time.

Once students were happily using their own laptops, the most requested addition was the ability to print to network printers from anywhere that the laptops could get an internet connection.

The IT team at Queen Margaret's, already long time users of PaperCut, figured out the best way for the school to securely allow personal devices to print to the secure network.

"Normally this would be a no-go area—ensuring the compatibility of devices with your printers and installing drivers, or asking users to install drivers to access the printers would be an administrative nightmare."

Using PaperCut for silent monitoring for over 5 years, the team upgraded to version 13.0 to solve the BYOD print issue with PaperCut Web Print. After proof of concept testing on the wireless network, they began phasing in each year level along with testing various print scenarios via the PaperCut user web interface.

No printer drivers needed

PaperCut's Web Print enables printing from user-owned devices without the overhead of installing printer drivers and managing server authentication. Deployed across thousands of education campuses, it is an ideal solution for offering print services via student owned laptops and netbooks.

Starting with a small group of students, the IT team reviewed document format types on different printers. Utilizing the Sandbox Mode setup allowed for the upload and print of PDF, XPS and Microsoft Office files. Testing with the most common file types helped to adjust the documentation before the full rollout.

Staff and students took to the solution easily, with Queen Margaret's online 'how to' guide helping them get started. The guide gave simple instructions on how to:

▶ Log into PaperCut through a web page

▶ Upload their document – Microsoft Office or PDF

In the background, the document is then transferred to a Windows 7 machine running PaperCut Web Print, which then renders and spools the job for the user and accounts it against the users PaperCut credit.

PaperCut is exposed externally on the Internet so students can web print from off campus.

In a previous role at another school, Jon tried other print management software that didn't have the features needed to support varying departmental use.

Realizing the growth of mobile devices while giving 500+ users the freedom to print securely can be an administrative nightmare for IT.

Challenges include:

▶ **Ensuring the compatibility of devices with varying printers**

▶ **Installing client software and drivers on student owned devices**
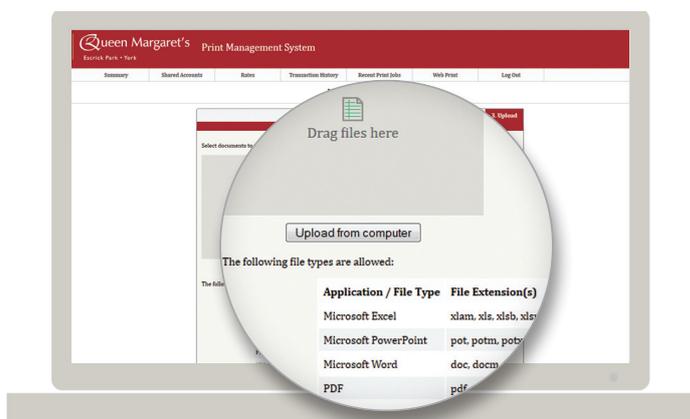
▶ **Controlling what's printed where and when**

Adding to this, the extra hurdle of having BYODs separated from the school's main network for security and management.

Familiar interface to match school's intranet

"Now that we had all the networking and web server stuff sorted out, our test group could access the web print module of PaperCut from the BYOD network and test each printer further. However, the default interface for PaperCut did not really fit with our school branding so we looked at styling the user interface."

Allowing HTML changes of the visual design of web print gives the pages an official look, ensuring students see the system as an important part of the school's network.

"Yet again the PaperCut Knowledge Base comes to the rescue with a guide on how to customize the web user interface. You will need good to advanced HTML and CSS skills to get this done; but there should be someone in your school who can do it for you!"

Consolidation and monitoring to see the savings

When Jon first came on board he found a room with 7 workstations and 8 printers. *"One of the greatest savings after implementing PaperCut, was minimizing the usage of desktop and old legacy printers to reduce spending on toner."* The IT team were able to identify high cost printers and consolidate these into more manageable contracts.

Implementing BYOD along with Web Print made printing more accessible and convenient for users.

Alongside the ease of use for staff and students and cost savings, senior management can also demonstrate a solution that highlights environmental conservation.

Ease of use

There was no need to do a hard sell for students to adopt the new web print workflows. The service improvement with more access to printers and less down time from printer errors, far outweighed the changes in workflow that came with a 'new system'.

Users are authenticated to print using Single Sign-On (SSO) with their workstation or laptop login.

The customized user interface (UI) gives students and teachers line of sight into how much they print. *"The UI feels like it was built from the ground up for a browser. Other print management software looks like it was ported from a Windows NT interface. It just works."*

What's next?

Charging staff printing to departmental codes to help allocate printers to departments, starting with high overdraft quotas. The Senior Management Team will consider putting a quota on students after the staff implementation.

The IT team are looking at Find-Me printing with the Global Print Driver to allow printing to a global queue, making a more robust and secure BYOD solution.

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