



## ABOUT KINGSBURY HIGH SCHOOL



Kingsbury High School is a large split-site secondary school located in the London Borough of Brent. The school has almost 2000 pupils and 140 staff and includes a 6th form of 460 full-time students.

The school is a 1960s amalgam of a traditional grammar school, Kingsbury County, now the upper school and a secondary modern school, Tylers Croft, now the lower school. The schools are just under half a mile apart and are connected by a fibre-optic cable.

The school has 10 servers and just over 500 PCs, all but two of which are networked using Novell Netware 6. All servers connect to a 1Gb/s backbone which feeds access switches located in computer rooms and other locations throughout both sites. The cross-site link also runs at 1Gb/s.

## THE PROBLEM

Print metering was introduced to the school in 1998, when the PC network only covered the upper school and comprised 150 PCs. The lower school had three computer rooms equipped with Acorn computer networks but no connection to the Internet or to the PC network. At this time printing was uncontrolled and in one computer room with 30 PCs we were using about a ream of paper per day. At the end of the school day each of the two printers were surrounded

## Case Study

# Kingsbury High School

### Enterprise Print & Copy Management

by a sea of discarded printouts. Students were printing pages and not collecting them and they were reprinting multi-page coursework assignments because there were errors in one or two pages. Students did not appreciate the cost of printing, or the waste of natural resources. We were about to extend the PC network to the lower school and replace two of the stand-alone Acorn networks with PCs and connect these networks to the Internet.

A solution to make students aware that printing carried a cost and to log what was printed, by whom, at which printer, how many pages and at what time was sought. Several products were investigated and Pcounter was the clear winner.

## THE SOLUTION

Pcounter was introduced easily into our Netware 4 network. Initially we chose to give our students a free allocation of pages which were considered to be sufficient for their particular courses. We gave all students in a particular Key Stage the same allocation, but gave the 6th formers (Key Stage 5) a larger allocation. We also introduced the concept of buying additional print credit in our two Open Learning Centres (OLCs). The OLC staff were given training in using the Pcounter Admin program to do this. The money they collected was credited to the PC consumables budget. It was also decided that teaching staff would also be charged for printing through Pcounter and each member was given an allowance. If they exceeded their allowance they could "buy" credits through the same mechanism that existed for purchasing photocopy credits. The charge for print credit was debited to the department's annual capitation and credited to the PC consumables budget.

## THE BENEFITS & RESULTS

Students were made aware that print metering was coming and teaching staff left students in no doubt that every page they printed could be tracked and that "Big Brother" was most definitely watching! We ran WBalance from the Netware login script and students were shown how to check their balances and were also shown that they did decrease.

The day Pcounter went live was a revelation. Students were, for once, checking what they printed and were checking their balances regularly. At the end of the first day there were only two sheets of scrap paper beside one of the printers and none beside the other.

In the first week we used only two reams of paper instead of the normal five or six. We were very happy with the result.

Subsequently, we decided to allocate the students a monetary sum rather than a number of pages. We did this because colour and double-sided printers were being introduced with different prices per sheet. Also, we felt that a monetary charge was more tangible to students. We price black & white A4 at 5p/sheet. Double sided is charged at 3p/sheet & A4 colour at 30p/sheet. We use Pcounter rules to enforce 1 page only on colour printers & PCL only to minimise the cost if a student chooses the colour printer by mistake.

We took the decision to implement one print server on each site. This reduced the number of Pcounter licences we needed and made implementation easy. We created the Pcounter print server in NWadmin and then configured the default costs, rules and paper sizes. We then as-

Keith Bailey  
Computer Manager  
Kingsbury High School

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sociated the printers and modified the default rules and costs and we were in business.

As we migrated our servers to Netware 6 we introduced Novell Distributed Print System (NDPS) printers. These were easier to deploy because the drivers were stored in NDS and were pushed down to the PC when the printer was installed. Pcounter had also been developed to support NDPS and we simply upgraded and were able to run both traditional queue-based printers and NDPS simultaneously. This was a great advantage and it was something that Pcounter did "out of the box".

## COMMENTS

Keith Bailey, Computer Manager at Kingsbury High School commented:

"We estimate that Pcounter has reduced our paper consumption by half. This also has a knock-on effect on printer consumables. Pcounter was saving us at least £30 per week in paper and consumables so the project paid for itself inside one school term. In addition, it made students put a value on printing and they are now much less profligate. Also, they know that they are accountable for what they print and they cannot claim that they have printed little yet have no credit. We simply show them their print history. The payment system is still in use and the move to a monetary allocation rather than a page allocation has made it easier for students to understand the real costs."