# The Wharton School of The University of Pennsylvania

HP MFPs, Pharos print management solution deliver convenience, efficiency

*"We want to provide our students with the best technology and a good value. Just as important is providing them a high level of customer service and support. With HP, we can do it all."*

*—David Comroe, technical director, Public Technology, The Wharton School of The University of Pennsylvania*

**HP customer case study:** Prestigious business school enables chargeable printing solution that students actually like

**Industry:** Higher education

**Objective:**
Offer convenient on-campus student print capabilities with a built-in chargeback system

**Approach:**
The Wharton School of The University of Pennsylvania deployed new HP Multifunction Printers equipped with Pharos print management software

**IT improvements:**
- Remote management using HP Web Jetadmin software
- Wireless printing from notebook PCs enabled

**Business benefits:**
- Release process eliminates unwanted, wasteful printing
- Duplex printing default cuts paper costs
- Web portal facilitates print funding management, including adding to account balance
- User authentication in release process improves security for confidential documents

The new printing solution for students at The Wharton School of The University of Pennsylvania, featuring HP Multifunction Printers equipped with Pharos print cost management software, has been so successful that student print volumes have nearly doubled.

"Our new HP printers are faster, print quality is excellent, errors are down, and students find printing is much more convenient," reports David Comroe, technical director of Public Technology at Wharton.

The only downside is that printing demand has increased so much there are still lines at the printers between classes. So Comroe has added five additional HP LaserJet 9050 MFPs to meet the demand. "We were so happy with the HP 9040s we installed last year that when we needed

additional capacity we naturally turned to HP 9050s," Comroe says. "We've always considered HP the leader in printing technology and the best partner for our needs."

### Serving students first

The Wharton School of The University of Pennsylvania was the world's first collegiate business school, established in 1881. It remains one of the leading business schools, offering competitive undergraduate, MBA, PhD and executive programs. The school has more than 84,000 alumni in 140 countries around the world.

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To serve the printing needs of students, the school has long offered a "managed print" program. Each student has a printing account that begins with a certain quota of free printing ($20 per semester for undergraduates, $40 for MBA students). All printing is logged and tracked by automated systems connected to the printers. Printers are located in labs and 57 group study rooms.

Comroe says the managed print solution in place at the school until a year ago lacked some features. It didn't accommodate wireless printing from laptops and was inconvenient for students to replenish the money in their print accounts. So many students simply

exhausted their initial allotment and turned to nearby off-campus stores or elsewhere to do their printing.

"Our main priority for the print program is providing the highest-quality experience and service to the students," Comroe says. "Clearly we needed to make some changes."

Wharton Computing spent months planning a replacement program. It included LaserJet 9040 MFPs for black-and-white output and Color LaserJet CM4730 MFPs for mixed color and monochrome output. All the MFPs were equipped with Pharos print management software, making them integrated multifunction printers (iMFPs). Pharos software enables automated billing, adds security, and provides the convenience of enabling students to print to any printer in the school.

"We liked HP's relationship with Pharos," Comroe notes. "A group of IT leaders from the different distributed schools at Penn met to standardize print pricing, and they all decided to use Pharos."

When students want to print using the new HP iMFPs, they simply use the print dialog box as they would for any printer, but the job isn't immediately output to paper. Instead, it goes into a "cloud" print queue. When students are ready to pick up a job, they go to a printer, swipe their ID card and use a touch-screen interface to release the job for output at that printer. The job quickly prints out, and the student's account is also debited the appropriate amount.

This "release process" is new. In the past, as soon as a student submitted a job, it would be output at whatever printer the student designated. Sometimes, of course,

students had second thoughts. They decided to revise the document again and print it a second time. So a large number of printed pages were never picked up.

"The new release process eliminates all that waste," Comroe notes. "Since we started with the new HP/Pharos iMFP solution, students have put more than a million pages into the print queue that were never released for printing. That saves toner, electricity and paper. We want the school to be a leading eco-citizen, so this is a big advantage for us."

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The program is more efficient and eco-friendly in other ways, too. The school has set all iMFPs to default to duplex printing. That also cuts paper use dramatically. Students can change the default for a particular job, but few do. The billing system also favors duplex printing: students are charged 7 cents for a single-sided, single-color (black) page; but only 10 cents for a duplexed page. "So we're giving them a discount to print in duplex, and most accept that as the new standard." Color pages printed on the Color LaserJet MFPs are charged at 28 cents.

"We've saved over 2 million sheets of paper: 987,000 were saved by going to duplex by default; 1.45 million

were saved by the release model," he adds. All these calculations were possible due to the Pharos reporting, which was another feature Comroe and his department liked.

Overall, Comroe says, volume has virtually doubled since the HP/Pharos solution and new HP iMFPs were rolled out on campus. Based on current usage, he projects 2.5 million pages will be printed by the end of the academic year, versus 1.2 million the previous year.

Students apparently find the new print system easy to use and regularly recharge their print accounts. In the past, they had to go to the central reprographics department to add money to their account. But part of the HP/Pharos solution is a portal where students can log in and control their print interface, including adding money to their account. All students start with an automatic print credit. If that is depleted, the Pharos system will default to a Penn Cash account, another form of virtual currency used throughout the campus.

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From the student perspective, another huge benefit is the ability to print wirelessly from notebooks. So far, students are using the HP iMFPs almost exclusively for printing. Comroe explains they are currently using

scan-to-email now, and will implement copying features in the summer. "Students like this technology solution—there is no extra cost for them, it's all electronic and saves paper. It's a win-win for everybody," he enthuses.

The HP/Pharos system is designed for students, but they aren't the only ones who benefit from it. Comroe's staff finds it easier to manage than the previous system. One reason is HP Web Jetadmin software, which Comroe's staff can use to monitor printers (including cartridge replacement and paper supplies), check for errors, do remote resets when necessary, and upgrade firmware.

"Typically, if a student wants to complain, they'll go to Wharton Student Support and say, 'Printing is down,'" Comroe explains. "That's not very helpful, of course.

But now we can quickly check the status of any and all printers with Web Jetadmin, and see what is happening and where attention is needed."

All the printers are on an HP service contract calling for four-hour response. "In the past, we had an external contractor for service. HP's service is definitely better."

He advises peers looking to launch a new student print system to identify key stakeholders and get plenty of feedback from them early in the process. And, of course, to carefully choose the vendor. "We want to provide our students with the best technology and a good value. Just as important is providing them a high level of customer service and support," Comroe concludes. "With HP, we are able to provide our students with the technology to meet their demanding needs."

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