



# NO STRINGS ATTACHED

IT Pros Implement Mobile Printing  
in Busy Environments

Forrester Research has characterized almost a third of the global workforce as anytime, anywhere information workers – those who use three or more devices, work from multiple locations and use many apps. Forrester predicts there will be 905 million tablets in use for work and home globally by 2017.<sup>1</sup>

Those tablets and smartphones give employees flexibility to be on the frontlines and still connected to the office, to important files and to communication tools.

But while they allow workers to cut the cords that tie them to their desks, they can present challenges when workers need to print out hard copy documents. Often, mobile printing is not supported, and because of security concerns companies can't grant carte blanche access, forcing workers to revert to pulling up content on and printing from their PCs – limiting some of the convenience and effectiveness of the mobile movement.

But printers increasingly allow for printing from a range of mobile devices through wireless connections, including peer-to-peer wireless connectivity. The movement toward a more mobile workforce is changing the way the workplace functions and creating a more nimble workforce that can operate where the action is – and office functions must be able to keep up.

To better understand how mobile printing can enhance the workplace in a variety of industries, three IT pros share their experiences setting up and operating mobile printing in their environments. Their stories include:

### EDUCATION

A university that changed with the times, matching its printing capabilities to its students' increasing use of smartphones, tablets and laptops

### MANUFACTURING

A medical device manufacturer that uses mobile printing options to free up its employees to be where they need to be on the production floor

### HEALTHCARE

A healthcare organization that uses mobile printing to avoid logjams in its busy emergency department, and to give physicians more freedom in its clinics

# EDUCATION

**MARK MESZAR**  
Senior Applications  
Analyst

**ORGANIZATION**  
Kent State University

**EMPLOYEES**  
More than 25,000  
students and 2,000  
faculty members and  
staff, including about  
200 employees in  
information services



Five years ago, students at Kent State University carried books, binders and cellphones, which they mainly used for texting and phone calls. Today their phones are mini computers that let them text, swap notes, email, engage in social media, do research and retrieve documents from cloud storage. And, they're carrying around tablet or laptop computers that they use to do all of that plus write papers. Currently, each student at the university averages about 2.5 wireless mobile devices, according to Mark Meszar, senior applications analyst in the university's IT department.

Needless to say, the university has had to evolve with students' needs.

Computer labs with wired computers connected to printers just don't cut it anymore – students expect to be able to print documents from their mobile devices.

"Cell phones are now mobile computers. People are doing more and more on them. Tablets certainly are used heavily in class with note taking, and their laptops have become even more convenient as well," Meszar says. "We've seen a huge proliferation of bring-your-own-devices, and obviously it's hard to install printer drivers on a phone or tablet without completely revamping every printer on campus to a new model that supports those devices."

When the university's print-management system released an application that allowed users to print remotely, the members of the university's IT staff were excited. Through the app, users could upload a document directly from a web browser or email the document as an attachment to the printer server. Now students upload to the printer server, which connects to 135 printers throughout campus, then swipe their student card at any network-connected printer to pay and begin printing.

The university has tweaked the software to better serve its needs; for example, students have their own queues that follow them around, and they only see their own jobs. This helps preserve privacy, because there aren't pages resting in the printer tray to be picked up and viewed by anyone.

**“We were immediately excited about the notion of mobile printing because we’ve seen a huge up-tick in the number of devices students bring to campus.”**

—Mark Meszar,  
Senior Applications  
Analyst

While the new mobile printing system hasn’t cut down on printer queues, it has taken the load off of lab computers. Before, students would reserve lab computers simply to print documents – sometimes many pages long. Now, they can use their own devices for research and writing, then send the document directly to the printer.

Meszar says implementing mobile printing was easy. The software was intuitive and simple to set up and use. However, while common formats are supported, some of the file types used in creative industries and colleges aren’t supported, such as AutoCAD and Adobe Illustrator. For those, students still have to print via traditional routes.

Not everyone immediately took to the new mobile printing. Some students didn’t like having to input their username and password – they wanted the convenience of simply pressing the print button.

But Meszar says, “We learned there’s always going to be a certain portion of the population that dislikes change. When we made that change, there was a lot of pushback from students who weren’t used to having usernames and passwords to protect themselves. It caught us a little bit off guard, but our answer was that this is for the overall greater good. We hear the concern you have, but the short answer is, you will quickly adapt to it. And they did.”

It took about half a semester for students to get used to the new printing solution and recognize the convenience and security benefits. Then, they discovered its value: Within the first year, prints from the mobile app more than tripled.



### **MOBILE PRINTING TIPS**

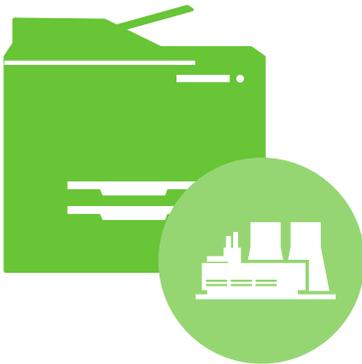
Make sure your mobile printing portal is running on a robust server. In addition, if your organization is large, it’s a good idea to roll out a new mobile printing process gradually rather than all at once, company-wide.

# MANUFACTURING

**SERGIO AVILA**  
IT Specialist

**COMPANY**  
A&M Biomedical Inc.

**EMPLOYEES**  
20 - 40



A&M Biomedical Inc., a small manufacturing company in California, builds medical devices that have to operate in clean, controlled environments. Device development takes place in sterile “clean rooms.” Each time supervisors, assistant supervisors or project leads leave the room with their company-issued laptops to print a document, they have to wipe down the laptop before re-entering. This can be time-draining and inefficient.

So when the company was seeking a new printer in 2014, it made sure the printer had mobile printing capabilities, says Sergio Avila, half of the company’s two-person IT team. It settled on a printer that included built-in Wi-Fi and was Apple AirPrint certified. The iPads kept in the clean rooms - to generate automatic reports about environmental states - automatically locate the printer for remote printing; but their laptops still had to be manually connected to the network.

Now, these 10 employees use mobile printing exclusively, Avila says. The printer is also connected to a desktop computer by Ethernet cable, but more than 60% of jobs through it are from the mobile devices. “There are really no limits – it can print anything work-related.”

Deploying the software was a simple plug-and-play task, Avila says. He set up the printer on the network and configured a few ports. The Wi-Fi interface is user-friendly, letting Avila select who has access to the printer. And because access is contained on the company’s already established network hosted on an on-premises server, it didn’t require any security measures beyond those already in place.

“Mobile printing was one of the features we looked for when we upgraded our printers. It makes it a lot more convenient, since some of our employees needed to be mobile.”

—Sergio Avila,  
IT Specialist

Avila reports that by letting people print from wherever they're working, mobile printing has increased productivity. “Some workers need to be mobile, they're not just stuck to a workstation. Now they can pretty much work from wherever they need to be. That makes it convenient, and if it's a production supervisor, they can still supervise a line and have access to whatever they need so they don't have to stop what they're doing to go print something out. It definitely makes things a lot more convenient.”



### **MOBILE PRINTING TIPS**

From an end-user standpoint, it's a good idea to create and distribute visual aids showing every step that is changing from your existing print processes. Anything you can do to ease the learning curve will help smooth the conversion process.

# HEALTHCARE

## JIM MCNEIL

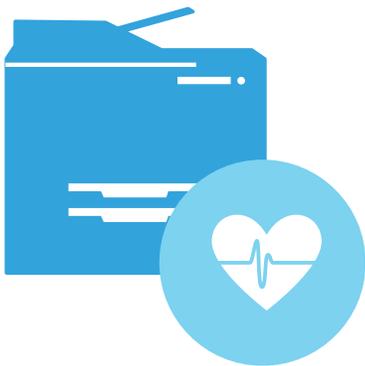
Network Engineer

## COMPANY

Claxton-Hepburn  
Medical Center

## EMPLOYEES

500 - 800



When Claxton-Hepburn Medical Center in Ogdensburg, New York upgraded its printing options, it had two goals: 1) To support “guest printing” for the EMS crews that brought patients to the emergency department; and 2) To allow more staff flexibility at the system’s lightly staffed remote clinics.

### *Guest Printing*

Guest printing would accommodate the EMS crews that transfer patients to the hospital. These crews are required to leave patient information with the hospital. For years, the crews gave verbal reports, but recently New York State has been enforcing written reports. To help speed things along and help with congestion in the emergency department, a local EMS provider asked if their crews could print to the Medical Center’s printers from the crews’ iPads. The iPads already contain the formatted forms, making it a simple matter of quickly entering the specific patient information.

Claxton-Hepburn already had a wireless network that physicians and other staff could tap into, but they didn’t use it for mobile printing. They set up two printers in the emergency department on the wireless network for mobile printing. Jim McNeil, the hospital’s network engineer, entered the hospital’s SSID information into the EMS crew’s tablets so when they were in range, the tablets automatically connected to the hospital’s wireless network. The iPad’s automatically detect printers with mobile printing capabilities, so whenever the crews were within range, they could simply hit the print button and their documents would print to the Emergency department printers.

Implementation was surprisingly simple, McNeil says. “I thought it was going to be this really big pain. I thought it was going to be really hard. But the printers worked great. There were no flaws. We’ve had no issues, really.”

And because the hospital staff put the SSID access directly onto the tablets, the risk of someone else getting that access is minuscule, says McNeil.

“Everybody wants to be on the move. Nobody wants to sit down and plug in. So having mobile printing is just more convenient”

— Jim McNeil,  
Network  
Engineer

The only obstacle the hospital encountered was ensuring that the EMTs were printing to the correct printers. They didn't want a confidential, HIPAA-covered document spitting out a few floors away, even though they're confident that all staff members are discrete and HIPAA-compliant.

#### *Flexible Printing in Small Clinics*

While the hospital has a wireless network, its six small clinics – which are often staffed with just one nurse, one receptionist, and one physician or physician's assistant – did not have wireless networks. That changed recently. Now, physicians can jump on the network and print directly to the network-installed printer from their company-owned laptop via the wireless network.

The hospital also recently changed information technology systems to one that has more mobile options. The increased availability of remote access presents more options for patient rooms. If physicians can simply carry their devices from one room to another, this cuts down on the cost of having a computer in every room.

Not everybody is ready to make the switch, though. Even one of the champions for remote access insists that each patient room still have a wired computer. McNeil says, “The mobile world is kind of in and out for us...but people are slowly coming around to it.”



### **MOBILE PRINTING TIPS**

Today's applications and cutting-edge printers and tablets can make it simple to set up mobile printing. If both the printer and mobile device are on the same network (or can be connected through a peer-to-peer Wi-Fi feature), mobile printing deployment should be simple and issue-free.

## CONCLUSION

Mobile printing is about printing in new ways and in new places – and it's becoming essential in the workplace. Fortunately, the technology and applications available today make it simple to implement. Forrester believes that BYOD is an inevitable part of any workforce strategy and that companies must prepare for its spread across their organizations.<sup>1</sup> And that strategy isn't complete unless mobile printing is included – otherwise, there are still cords tying workers to their office space despite the use of convenient mobile technologies.

## Source

IT pro interviews conducted by Spiceworks on behalf of HP, April 2015.

<sup>1</sup>Ted Schadler, "2013 Mobile Workforce Adoption Trends," *Forrester Research, Inc.*, February 4, 2013. [http://www.vmware.com/files/pdf/Forrester\\_2013\\_Mobile\\_Workforce\\_Adoption\\_Trends\\_Feb2013.pdf](http://www.vmware.com/files/pdf/Forrester_2013_Mobile_Workforce_Adoption_Trends_Feb2013.pdf)