Centra Health

HP and TROY Prescription Printing Solution enables cost-effective prescription security

hp

Centra Health

"Using HP and TROY Prescription Printing technology allowed us to deploy a cost-effective electronic prescription solution. Our physicians can now generate prescriptions simply and easily, and Centra can be confident that those prescriptions are protected from unauthorized duplication and fraud."
—Ben Clark, vice president and chief information officer, Centra Health, Lynchburg, Va.

HP customer case study: Health network protects prescription integrity with HP and TROY solution

Industry: Health care

Objective:
Protect integrity of electronic prescriptions

Approach:
Deploy HP LaserJet Printers and TROY solution

IT improvements:
- All electronic prescriptions include security protections
- Solution simplified printer hardware requirements (two-drawer models instead of four-drawer)
- Security features transparent to physicians, easy to use

Business benefits:
- Projected paper budget reduced by an estimated $12,240 per year in ER alone
- Prescriptions comply with Centra and CMS security requirements
- Solution eliminates need to lock printer drawers, paper storage facilities

When Centra Health—a network of hospitals, medical practices, outpatient facilities and other services in central Virginia—first began planning its new Emergency Department electronic medical records (EMR) system, ensuring the security of electronic prescriptions was a key priority.

Centra's commitment to technology dates back to 2003, when it implemented a high-speed data network to connect its Lynchburg, Virginia, facilities—including the 270-bed Lynchburg General and the 315-bed Virginia Baptist Hospitals—to its other regional health care facilities: primary care physicians' practices, a home health care service, nursing homes, and numerous other physical and behavioral health businesses. Today, Centra's technology leadership is

nationally recognized. It's been named as one of the top 25 Most Wireless health systems in the country by H&HN (Hospitals & Health Networks) magazine, for instance.

One area where Centra has demonstrated that leadership is its use of electronic prescriptions. Like all health care providers, Centra traditionally used handwritten prescriptions. Today, Centra's Allscripts EDIS and McKesson Horizon to generate printed prescriptions that help meet the Centers of Medicare and Medicaid requirements.

Cost-effective security

Centra has been standardized on HP printers for many years now. However, it didn't originally plan to use the TROY solution for its EMR systems, notes Tony McKinney, EDIS manager of Clinical Informatics, Centra Health. "We didn't know about the technology," McKinney says. "We were planning to print prescriptions on security paper."

Ensuring prescription security was a critical component of Centra's EMR blueprint. Using security paper, however, has a downside: cost. When McKinney ran the numbers on Centra's planned Emergency Department EMR system, he budgeted about 10 cents per sheet for security paper. Centra's main emergency center at Lynchburg General handles about 90,000 patients per year. About 68,000 of those patients will leave the center with, on average, two prescriptions. At 10 cents per sheet of security paper, that adds up to an estimated $13,600 in paper costs at that facility alone.

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A related issue is wasted paper. Centra planned to equip its EMR network with four-drawer printers. Emergency Department staff would stock one of the drawers with security paper, and the others with plain paper. If the drawers with plain paper ran out, however, the printer would print all of its documents—including documents like patient discharge instructions—on the security paper. McKinney knew that this would add additional overhead to his printer supply budget.

Then there were the soft costs. The printer drawers loaded with security paper would need to be kept locked. Supplies of security paper would also have to be kept under lock and key. Managing the security paper in locked drawers and storage rooms would create new demands on staff. In some cases, Centra would have had to make additional capital investments to ensure its security paper would be adequately protected from the risk of theft.

These were prices Centra was prepared to pay, of course. Like all health care providers, Centra recognizes the serious nature of prescription fraud and the need to put precautions in place to protect the integrity of its prescription-writing processes.

Fortunately, Centra discovered another, less costly way to keep its prescriptions secure. "I attended a health technology industry user group," McKinney says. "That's where I first learned about the TROY solution."

McKinney realized the solution might represent a more cost-effective way to produce secure electronic prescriptions. The only problem: He was only weeks away, at the time, from deploying his first EMR printers. "Delaying our 'go live' wasn't an option," he says. "We'd had that date set for a year."

So McKinney asked TROY and HP to help him determine whether this solution solution would work for Centra—and if so, whether they'd be able to implement it without causing the EMR deployment date to slip.

Validated technology, expedited procurement

A key step, McKinney says, was to test the technology. This solution offers several security printing features to protect the integrity of printed prescriptions. One is a copy-void pantograph, a special pattern printed in the background of the prescription that reveals the word "COPY" multiple times if the prescription is photocopied. Another feature allows providers to print a customizable text message around the prescription in a special 0.6 font, optimized by TROY for laser print applications. On an original prescription, this micro- print can be authenticated under magnification with a 5x loupe. If photocopied, however, the micro-print degrades into a solid line or unreadable characters. TROYMark™, a variable print anti-alteration feature, displays prescription print data in repeating diagonal patterns across the prescription.

In addition to these features, a description of them prints in a warning box on the prescription. This way, anyone filling the prescription would know how to verify its authenticity.

Centra was intrigued by these features, but needed to validate them on-site. So HP and TROY demonstrated the solution to Centra, and then TROY helped McKinney set up a series of tests. "We made sure that when the software lays down the security features, they were dark enough to be visible," he says. Centra also validated that no one could obscure the features by changing a copier's settings.

Once Centra's tests confirmed that the HP and TROY solution would meet its security requirements, it was time to cross the next hurdle. Implementing the technology meant that Centra could make another change to its EMR infrastructure— downsizing to two-drawer printers instead of four-drawer printers in the Emergency Department and one drawer for the physician offices, because it can use the same paper for its prescriptions that it uses for its other documents. The only question was whether Centra could make the print device change without impacting its deployment timeline.

"Normally, we allocate six to eight weeks to procure a new printing device," McKinney explains. When he turned to HP, however, the company expedited
Centra's order of the printer models it needed for its initial deployment of the electronic prescription application. "With HP's help, we were able to get the two-drawer printers in-house quickly for the Emergency Department to meet our timeline."

Projected costs reduced by thousands

Centra has adopted a phased approach to its EMR implementation. It started with its Lynchburg General ER. Next, it began deploying in selected clinics and physicians' offices. Future plans include implementing the technology for its in-patient hospital facilities.

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McKinney is pleased with the printers. "HP printers are high quality and easy to maintain," he says. And Centra health care providers are happy with the new electronic prescription workflows. "Our physicians simply enter the prescription information electronically, and then sign the prescription as required by Virginia state law when it's printed."

Using the HP and TROY solution means Centra's paper costs for its prescription printing are only a penny per sheet, instead of the 10 cents per sheet it would have cost to use security paper. Therefore, McKinney was able to reduce his ER print supply cost projections by an estimated $12,240 per year.

Using the this technology also freed Centra from needing to lock its printer drawers and paper storage facilities.

And the solution is completely transparent to Centra physicians. When they create an electronic prescription, the software automatically detects that it is a prescription and adds the required security features.

"Protecting the integrity of our electronic prescriptions is a priority for Centra Health," McKinney concludes. "Thanks to HP and TROY, we now have a system in place that meets our security requirements easily and cost-effectively."