



## CASE STUDY A PAPERLESS HOSPITAL RELIES ON SCRIPTING WHEN THE PLUG IS PULLED

Citizen's Memorial Healthcare • Bolivar, MO

### Challenge:

In a paperless environment, how do you keep going in the event of a power failure?

**Solution:** Automate the regular backup of critical information to usable file formats

**Result:** Seamless access to critical data when the power is down

Citizen's Memorial Healthcare used to operate as a traditional rural hospital with regards to technology - disparate systems and databases, no common patient identification, lack of clinical documentation systems, lack of continuity of patient care information across the delivery system and minimal information technology (IT) standards.

Nearly four years ago, Citizen's overhauled its IT structure in an effort to operate more efficiently, improve patient care and manage rising costs. Today, a fully integrated, 100 percent paperless healthcare information system connects the 74-bed hospital with five long-term care facilities, 16 physician clinics and home care services across southwest Missouri.

Located in Bolivar, Mo., Citizen's is a nationally recognized, rural healthcare system with 1,500 employees that provides a number of services including: inpatient care, outpatient care, emergency room services, behavioral health services and imaging services.

Citizen's has received many accolades including: the first rural hospital to earn the Nicholas E. Davies Award of Excellence, presented by the Healthcare Information and Management Systems Society (HIMSS) for advanced use and implementation of health IT; and the Stage 6 Electronic Medical Record adoption recognition from HIMSS Analytics.

### What Happens if There's a Power Outage?

When the Citizen's administration and board decided to implement an integrated health record throughout all its facilities, they envisioned replacing all paper charts with electronic records. About a week prior to going live with the patient care system (PCS) documentation, the IT staff was removing the paper from the charts at the nurse's station when a thought crossed their minds.

"It kind of dawned on us, 'What are we going to do if the hospital's systems go down?'" says David Tilley, network administrator, Citizen's Memorial Healthcare. "The charts were all going to be electronic and the nurses wouldn't have the paper to fall back on. We had a little more than a week to decide what we were going to do in that case."

The IT staff decided to script the reports to a PDF or some other type of file. In the event the hospital's systems crash, they would be able to create paper charts on the fly from the scripted reports, enabling physicians and others who provide patient care to be able to access the data they need without missing a beat. They turned to Boston WorkStation.

Boston WorkStation is a workflow automation technology that allows healthcare organizations to automate common tasks throughout the organization. These tasks include revenue cycle projects, interactions with Web sites, integrating new applications, systems and devices, and



electronically monitoring and managing user activity.

"I spoke with Boston Software Systems for an hour over the phone to familiarize myself with Boston WorkStation," says Tilley. "In that time, I realized that this tool would be powerful enough to successfully get the scripts running unattended. We looked at a couple of other scripting tools, but they weren't capable of accomplishing that task well enough."

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#### **Planned and Unplanned Downtime**

In the event of a system failure, a hospital must be able to fully function as it still needs to continue to care for its patients. Using Boston WorkStation, Citizen's now has downtime reports for short-term or long-term outages that help transition records from electronic to paper, providing instant access to pertinent patient information.

Citizen's has a dedicated server with Boston WorkStation scripts that gather and deliver the important patient data to the hard drive once an hour, 24 hours a day, unattended. The reports then get "pushed" to a central location where all departments can pick them up in case of a system failure. The reports are also pushed to each of the long-term care facilities because they are spread out over five counties. In addition, Citizen's has a second location where it stores Boston WorkStation scripts and pushes other important backup information in case of an extreme disaster.

Every other month, the hospital schedules planned downtime of two and a half hours, allowing staff to perform regular system maintenance to test and implement new systems, and to test disaster recovery procedures. During this time, each department is encouraged to follow its downtime plans. Unfortunately, Citizen's has occasionally had to deal with unexpected downtime when Mother Nature strikes in the form of ice storms and tornadoes. "We've had power outages due to tornadoes in our area," says Tilley. "They didn't hit our facilities, but they hit a part of our town and zapped our WAN (wide area network) connectivity for one of our sites for a day and a half. The only information that site had on hand was what we scripted for them in reports that day. Being able to retrieve those documents was a lifesaver."

It's not always just a natural disaster that causes unplanned downtime. IT staff members recall a Friday afternoon three years ago when they were down for 82 straight hours due to hardware failure. "We were at the hospital the entire time, and the scripts were very helpful in transitioning to the paper records so we could still tend to our patients' needs," says Tilley. "We had to make some adjustments to the downtime scripting, but we didn't have to start from scratch. Fortunately, we made good decisions in the beginning as to which reports would be necessary."

"We can proudly say that CMH has been paperless for four years, but there have certainly been instances when the system was down and we had to rely on the paper files," adds Tilley.

"Although having systems down is very inconvenient, we feel confident that we can remain fully functional as our staff is still able access the critical data they need to deliver exceptional care to our patients."

For more information about Boston WorkStation visit [www.bostonworkstation.com](http://www.bostonworkstation.com) or call 866 653 5105.

