



Sneak peek of HTQ's 2010 **SPRING ISSUE**

Hear from **JOHN EDWARDS**, Senior Director of Global Healthcare Solutions at Primex Wireless, on why healthcare providers can't afford to have clocks unsynchronized



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Time Sync

Why We Need It, How to Get It

In the healthcare industry, timing is everything. Treatment methods like resuscitation, for example, are reliant on minute by minute objectives and hospitals depend on accurate time records when dealing with legal liabilities. **JOHN EDWARDS**, Senior Director of Global Healthcare Solutions, Primex Wireless, discusses the importance of having all the clocks, computers and equipment in your healthcare facility in sync

Healthcare Trends Quarterly Before we get started, could you give us a little bit of background on yourself and Primex?

JOHN EDWARDS I am a registered nurse by education and have been in the healthcare business for 30 plus years with extensive experience in the pharmaceutical and medical industry. I've been with Primex in various capacities for five years, but primarily I look at how to expand our business in the healthcare market since that's my forte.

Primex has been in the time business since 1974 when we actually made clock parts; we've shipped approximately 100 million clock components around the world since the company was founded. About ten years ago we had a demand from healthcare customers regarding synchronizing time in their facilities. We came up with a platform driven by a GPS signal that was broadcast to clocks with the ability to receive that signal. Two years ago, because of the ubiquitous nature of WiFi technology, our customers came to us again and asked if there's anything we

could do to help them leverage their 802.11 technology. Enhancing our Synchronous Network System (SNS), which uses GPS technology, the WiFi platform was launched two years ago for the healthcare community.

We are leaders in modern synchronized time technology, so to make that point and show our commitment to the healthcare industry, we are members of a number of organizations, such as the Healthcare Information and Management Systems Society (HIMSS) and American Society for Healthcare Engineering (ASHE), which is an association of executives in healthcare and nursing who are specialists in IT. We have a presence in these organizations to let our customers know we are aware of what they are doing in IT and WiFi technology.

HTQ Getting a bit more into Primex's specialization, why is time synchronization so important, especially within the healthcare field?

JE Every time we do a procedure on a patient,

there is always a reference to time. That time should be continuous and synchronized from the start of the procedure to the finish. Unfortunately, this is not always the case, which is why synchronization as we know it today from a modern technology standpoint has become a crucial issue.

In addition to that, documentation is very important to healthcare professionals and hospitals where risk management and legal issues are at stake. If all clocks can be synchronized, this in turn would reduce many of those liabilities that hospitals face.

Perhaps more important, when it comes to the patient, particularly in resuscitation medicine with things like heart attacks or in labor and delivery, time is absolutely critical. Everyone doing procedures on a patient should be referring to a single standard in time, so you need synchronization.

HTQ Do you have any real world examples you could use to illustrate this point?

JE Yes, indeed. When a patient has a heart attack, for example. There are many hospitals

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in America and around the world that are members of what’s called the D2B (Door to Balloon) Alliance. These facilities conform to a Joint Commission standard from the time a patient is picked up for a heart attack to the time they are reperfused, that’s to say the time when they have the balloon in place to re-establish blood flow. (The standard) calls for critical time sequences and arteries must be opened up in under 90 minutes. Therefore, there has to be a way of tracking when that procedure started and when it finished. If it’s not done, you can have what’s called mortality and morbidity consequences: the patient can become sicker or die and sometimes the hospital may not always get the full reimbursement from the insurance when they submit their claims.

HTQ How are synchronized systems actually outperforming some of the clocks used in hospitals and healthcare facilities today?

JE Many of the old clock systems have been around for 40 or 50 years. These are wired clocks driven by a signal from a central system. Unfortunately, the clocks have worn out and they don’t give the right time. On some clocks you’ll see variations of an hour before

or after. Systems today, certainly our system at Primex Wireless, prevent that from happening. All clocks receive the signal at the same time, unlike old systems where time was sent by a pulse and the pulses may not be synchronized. At daylight saving time, for instance, (old systems) might take anywhere from four to six hours to change, whereas the wireless systems we have will change just after midnight or 2 a.m. depending on how the system is set up and all the clocks will change automatically. There’s a radical difference between the old system and the new systems of today.

HTQ You mentioned wireless and GPS origins earlier. Why do many healthcare facilities utilize wireless temperature sensing in particular?

JE About 80 percent of hospitals in North America function under the joint commission standards, so they have to monitor temperature in critical areas in the hospital. The WiFi system we have, which allows for electronic monitoring of temperature parameters, will in fact do just that. It means that the valuable time nurses and others would spend recording this temperature is saved, it is now all done automatically via the installed WiFi system. In fact, adding these nodes, like clocks

and temperature sensors, is one way (healthcare facilities) can see a higher and faster return on their investment after putting an expensive WiFi infrastructure in place.

HTQ How does Primex Wireless actually work on helping the healthcare industry?

JE The healthcare industry, as I mentioned earlier, has to live with the Joint Commission standards and we as a company help providers conform to those standards. If they violate them, it means that they can be given only partial accreditation or even closed down, which can create havoc in the community for the people they serve. Primex helps the healthcare industry adhere to standards, those set by the Joint Commission as well as the healthcare providers’ own internal policies and procedures, by providing synchronized time and interoperability with the preponderance of WiFi technology.

There are so many different and disparate pieces of biomedical equipment that all have a time reference. We make sure that all references to time use the Primex system as the sole reference so that everybody, from a workflow to patient management standpoint, is conforming to the same time standards. **FH**



JOHN EDWARDS is the Senior Director of Global Healthcare Solutions at Primex Wireless and has been with the company for five years. Before joining Primex, Mr. Edwards spent over 25 years in the healthcare industry, gaining extensive experience in the pharmaceutical industry. He is a registered nurse and member of several healthcare organizations, including HIMSS, ASHE, ACHE, ASHRM and the AORN.

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