

Case Study

Wabash General Hospital Creates Hybrid Clock System to Achieve Accurate Time

Wabash General Hospital is located in the peaceful town of Mount Carmel, Illinois. Bordered by the Wabash River, this county seat is centrally located between St. Louis, Nashville and Chicago where the rural critical access hospital is licensed for 25 beds.

When the original wired clock system from 1983 starting giving the Engineering Department trouble, Director of Plant Operations, Steve York and IT Director, Bobby Gage, worked together to implement a customized hybrid clock system using SiteSync IQ Wireless Clocks and Power over Ethernet clocks from American Time.

To ensure all clocks would show the exact same time all the time, it was decided that the Domain Controller would be the master clock for WGH. York and Gage synced all PoE clocks, SiteSync IQ wireless system controller, and Computers to their domain controller. This is their single time server for all their devices. The SiteSync IQ controller is connected to the wired clock system to control the remaining wired synchronous clocks in the hospital.

A new medical office building was constructed near the main hospital campus starting in late 2010. It was completed in the spring of 2011. A fiber optic cable was installed to connect the two buildings to the same computer network. During the early stages of construction on the medical office building near the hospital, running the Cat6 Ethernet cables for the PoE clocks was easy. "We installed the cabling for the PoE clocks above the ceiling near the locations decided upon by each department during construction.

After the walls, painting and decorating was complete, the Director of Physical Therapy and the physician's office manager could decide the exact location for the clocks. By installing the clocks after the pictures and furnishing were in place it was easy for the staff to decide on a location for the clock. If the clocks had been installed prior to the furnishing some of them may have had to be relocated. It was easy to drop a cable down the walls for the PoE clocks at that point and install the clocks," said York.

Wiring wasn't quite as easy in the existing hospital even though PoE clocks were considered as an option, it wasn't the most affordable option available. York explains, "I've been working on swapping out our battery-powered, non-synchronous clocks in all patient rooms for wireless battery-operated clocks a few at a time. The plan is to get synchronous clocks in every patient room to have accurate clocks throughout the entire hospital. With the computers and sync clocks all synchronizing from the same domain controller all battery powered and hard wired sync clocks and computers are on the same time, down to the second. I started the conversion in the monitored care area first, then orthopedics, then the patient rooms. We'll continue with synchronized clocks (if and when) we expand."

York is looking forward to the day when the entire system is complete. "Wireless clocks with battery boosters operate for years without changing batteries. It should be a good, long time before I ever have to touch the clocks again. Before the new system, if a patient room didn't have a sync clock, when Daylight Saving Time change occurred the nurses and patients would have to wait until Monday for the clocks to be corrected when the Engineering staff was back at work. Both the wireless clocks and the PoE adjust automatically for Daylight Saving Time. That's one thing I love about all the synchronous clocks!" With the installation of a computer in each patient room for the Electronic Medical Records all of the clocks and the computer time are exactly in sync to the second.

When York discovered free custom logo dials were available on the analog clocks, he collaborated with the CEO and the Director of Nurses to brand both the PoE clocks and the wireless clocks with the hospital logo. "This might be a deterrent to someone wanting to take a clock from the room. And I thought we might as well have our name on them instead of a manufacturer's name. We can look at any logo clock now and know it's exactly the right time down to the second."

To discover more details of the SiteSync IQ Wireless Clock System, visit american-time.com.