Zetron Prescribes RX for “Sick” Dispatch

How did they evacuate a “sick” building and return with a “hot” transfer?

The term “sick building syndrome” (SBS) is used to describe situations in which building occupants experience acute health and comfort effects that appear to be linked to time spent in a building, but no specific illness or cause can be identified. A report issued by the World Health Organization Committee in 1984 suggested that up to 30 percent of new and remodeled buildings worldwide may be the subject of excessive complaints related to indoor air quality. Typically, building occupants complain of symptoms such as headache, dizziness and nausea, fatigue, and eye, nose or throat irritation. So called “sick buildings” are the nightmare of any building manager, as they may require long or short term evacuation of the premises until the cause or causes of SBS can be identified and fixed. The situation becomes even more serious, however, when the building in question is a 9-1-1 Call Center. Evacuating the premises is not an option, since such an action would quickly result in a public safety emergency. This was the situation faced by the Kane County Sheriff’s Office in Geneva, Illinois, when on Saturday evening, May 10th, 1997, their 9-1-1 dispatchers began falling ill for an unknown reason.

“We had a ventilation problem in the building,” explained Director of Communications, Len Notz. “The Communications Center was located in the lower level of the building. Because the building had been retrofitted, it created a ventilation problem between the Communications Center and the building’s air conditioning/heating unit. Dispatchers complained of dizziness, light-headedness, and nausea. This happened over a three-week period until we had a situation on May 10th when three operators were taken to the hospital. At that point, Sheriff Kenneth R. Ramsey made the decision to evacuate the building.”

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Solving the immediate crisis:

With a stop-gap fix in place, United Radio Communications sat down with Kane County representatives to determine what their long-term goals would be. After weighing the options, United Radio suggested procuring two Zetron Model 4118 desktop consoles and a Model 4024 controller with which to equip a temporary dispatch center.

“The reason we suggested the Zetron solution was the fact that the consoles were portable and allowed flexibility,” Wilk said. “Plus we didn’t want them to buy equipment they would use now and throw away when they were done.”
To ensure this, United Radio Communications identified other sources within the County that could make good use of the Zetron consoles once the existing 9-1-1 center was made habitable again. This turned out to be longer than anticipated, as the County discovered that fixing the Communications Center ventilation problem would put the facility out of commission for months.

We need it yesterday!

Based on this new information, the County made the decision to go ahead and purchase the Zetron consoles. However, when United Radio contacted Zetron, they found that delivery would take at least three to four weeks, due to the typical manufacturing lead times required.

Fortunately, Zetron’s production people were able to put together and ship all the necessary pieces for United Radio Communications to assemble and configure the system in the field.

“The order was accepted on Friday afternoon, and on Saturday morning I had a Zetron console sitting on my doorstep,” Wilk recalled.

A home away from home:

A former youth home next door to the main Sheriff’s Office was taken over to provide a home for the temporary dispatch. Other vendors also swung into action. Local phone provider, Ameritech, broke apart a pair of cables that ran to a communications tower to provide the extra pairs.

The original call center had been equipped with a five-position console system. For a period of eight months, the County operated with just the two emergency back up Zetron Model 4118s, which were interfaced to twelve different radio channels with full paging capability for Fire and EMS, as well as police dispatch.

Moving back in:

To remedy the old building’s ventilation problems, modifications were made to the heating and air conditioning systems, and air purifiers were added to the Communications Center. When the time came to move back into the old Comm Center, a live transfer was carried out. Since the back up and primary systems were paralleled, it simply involved dispatchers moving into the old center, and taking over without dropping a single call. The back up Comm Center with the Zetron consoles was kept on-line and “hot” for an additional two months—enough time to be absolutely certain that the SBS problem had been cured.

New life for consoles:

The two Zetron Model 4118s are still in active service to this day. Their new home is in the EOC (Emergency Operations Center) of the Office of Emergency Management. This agency is in charge of weather emergencies such as floods and tornadoes. The Zetron console system is also tied into the civil defense system and has the capability of communicating over police and fire networks in order to maintain operability in the event of a system failure.

A short hop from Schaumburg:

With the Chicago area literally being Motorola’s back yard, the competition for radio console sales is understandably tough. Despite that fact, United Radio Communications has five local Public Safety agencies currently operating Zetron Series 4000 consoles. One of the consoles is located at a resource hospital where it is used to patch all of the outlying hospitals to different radio and cellular telephone lines. Another application employing Zetron consoles is at the Bolingbrook Police Department.

“Without the support of the manufacturer, you just can’t get anywhere,” Wilk said. “We took a lightning hit a week ago Thursday that wiped out a number of cards in a two position Model 4116 console. We had some cards we’d ordered as spares, and from what we had on hand, we were able to restore one operating position and most of their channel capacity within three hours after getting there. We contacted Zetron and would have had the replacement cards in our hands by Saturday but for a problem with the UPS. We received them Monday morning and by Tuesday afternoon, the consoles were completely restored. We actually upgraded one of the consoles from a Model 4116 to a Model 4118. Without the help of the Zetron folks we wouldn’t be able to do what we do.”

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See Zetron price list for option pricing. Specifications subject to change without notice. Literature number: 005-7248A November 2000