

Rural/Metro Gears Up for the Next Century

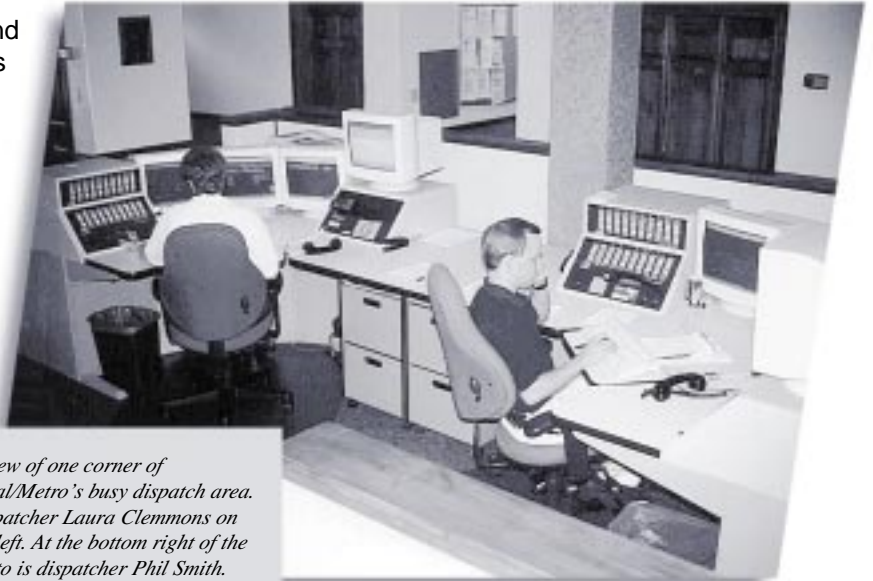
It is always a great testimony for a vendor and a manufacturer when a major company chooses them to supply and install equipment. But perhaps an even stronger testimony is when that same customer returns to the original vendor and manufacturer several years down the road when the time has come to upgrade its existing equipment.

Rural/Metro:

In 1994, the *Advantage* featured an article on Rural/Metro's operation in Knoxville, Tennessee. Rural/Metro was then, and still is, the second largest provider of emergency services in the United States. The 1999 statistics are equally impressive. The Knoxville facility serves a population of 586,000 spread across 526 square miles, answers in excess of 99,000 emergency calls a year, and dispatches for multiple agencies including Rural/Metro Fire, Rural/Metro EMS, Knoxville Knox County Volunteer Rescue Squad, Heiskell Volunteer Fire Department, Karns Volunteer Fire Department, Seymour Volunteer Fire Department, and Rural/Metro—Nashville EMS.

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When Rural/Metro began its search for a new console system six years ago, one of their most important criteria was the ability to upgrade the console equipment. Gary Morris, Communication Manager for the Knoxville Rural/Metro operation, was specifically interested in “a modular-type system that would allow us to grow intelligently and efficiently ... that would grow with our operation.”



A view of one corner of Rural/Metro's busy dispatch area. Dispatcher Laura Clemmons on the left. At the bottom right of the photo is dispatcher Phil Smith.

Cartwright Communication Technology:

Rural/Metro selected Cartwright Communication Technology of Knoxville, Tennessee as the vendor to supply the new system. At Louis A. Cartwright's recommendation, Rural/Metro went with Zetron consoles, purchasing a Model 4024 Common Controller and four Model 4116 Radio Consoles with a pair of Model 4115B Console Expanders. When Cartwright chose the Zetron equipment he knew its expandability would provide a system capable of taking Rural/Metro well into the next century. Six years later he has been proven correct. As predicted, Rural/Metro has continued to expand its capabilities to meet the ever-growing demand for its services. In 1996 it added another Model 4118 console. Despite that, by 1999 Rural/Metro wanted to add another console position, but the Model 4024 was already maxed out.

“The Model 4024 we installed in 1993 had reached its maximum capacity with five consoles and 20 channels in service,” Cartwright said. “To meet Rural/Metro's need for additional consoles and channels, as well as to anticipate future growth and satisfy the need for complete redundancy, we recommended an upgrade to Zetron's Model 4048.”

The Model 4048 Common Control Unit is specially designed to meet the needs of larger dispatch centers and is capable of dispatching up to 48 radio or telephone channels, and supports as many as 16 operating positions. When configured with dual redundant system controllers the Model 4048 features an extraordinary degree of reliability—no single point hardware failure will disable the entire system.

Cartwright added that the upgrade to the Model 4048 was relatively easy and economical, since all of the channel cards in the Model 4024 were simply re-used in the Model 4048.

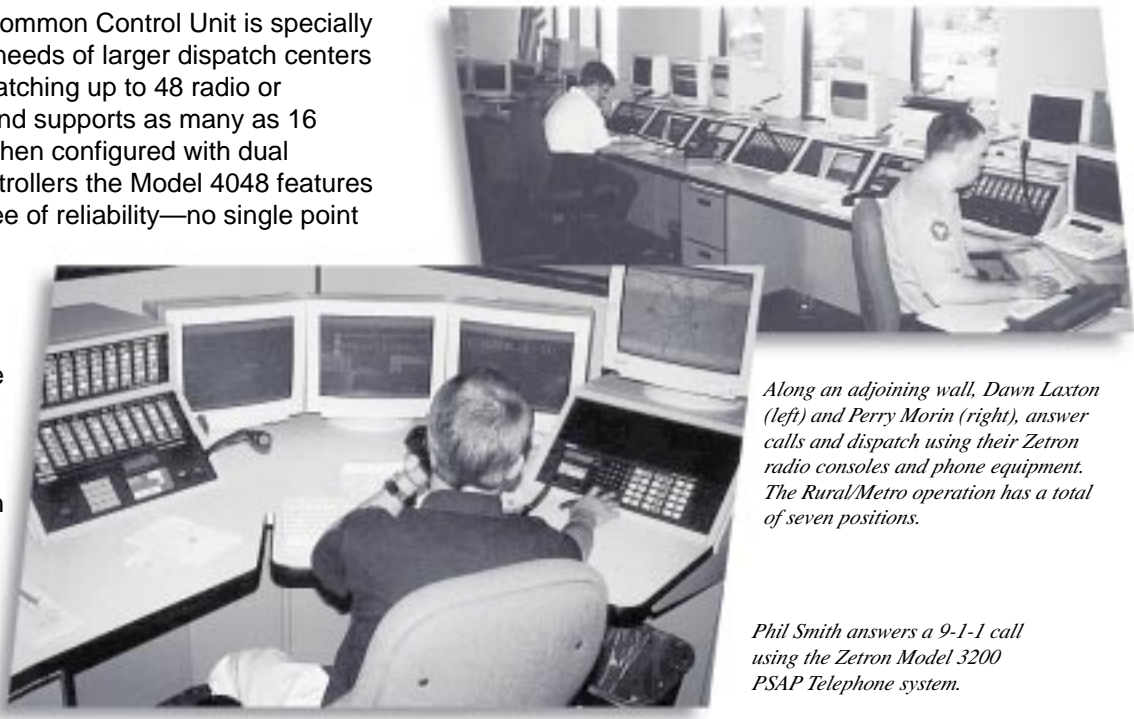
Need for a more reliable phone system:

The Model 4048 addition was just part of the upgrade, which included two more Model 4118 console positions (for a total of seven) and seven Model 3200 PSAP Telephone systems. The Model 3200s replaced a competitor's system that had been installed alongside the original Zetron consoles, but which had proven less than 100% reliable.

"In 1993 we installed Positron IAPs at 4 console positions," Louis Cartwright explained. "However, due to the high call volume the Positrons required replacement of the Release/Hold pad every six months. In 1996, when the fifth Zetron console was put in service, we also installed a Model 3100 telephone. Since the day it was put in service, the Model 3100 has not required a single button replacement. The usage versus maintenance benefits alone were enough for us to recommend replacing all of Rural/Metro's IAPs with Zetron's new Model 3200 PSAP telephones. The Model 3200 also provides additional features such as built-in Caller ID, TDD (Telecommunication Device for the Deaf) detection with button panel response, and Instant Recall Recorder (IRR)."

Although Rural/Metro is not currently using the feature, the Model 3200 also has the ability to provide ANI/ALI if that becomes a requirement.

No time for "down-time":



Along an adjoining wall, Dawn Laxton (left) and Perry Morin (right), answer calls and dispatch using their Zetron radio consoles and phone equipment. The Rural/Metro operation has a total of seven positions.

Phil Smith answers a 9-1-1 call using the Zetron Model 3200 PSAP Telephone system.

Because of the critical nature of the communications they handle, downtime at a public safety dispatch is not an option. During the Rural/Metro installation, Cartwright avoided downtime by wiring the new Model 3200 phone line card and station card equipment in parallel with the existing phone equipment.

"Once all the line wiring was done, we replaced each phone panel one-at-a-time with the new Model 3200 stations," Cartwright explained. "Although the total wiring rework took some time, the Model 3200 equipment was installed in one day."

Stove-bolt reliability:

Louis Cartwright pointed out that the original Model 4116 consoles and Model 4115 expander panels installed in 1993 have not had any failures or buttons replaced in six years of heavy use. Rural/Metro's director of communication, Gary Morris, also praised the reliability of the Zetron equipment and the excellent product support he has received both from Cartwright and Zetron:

"We had button problems with our original phone product," Morris said, "but we have not had a single failure with any of our Zetron equipment since it was installed in 1993."

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