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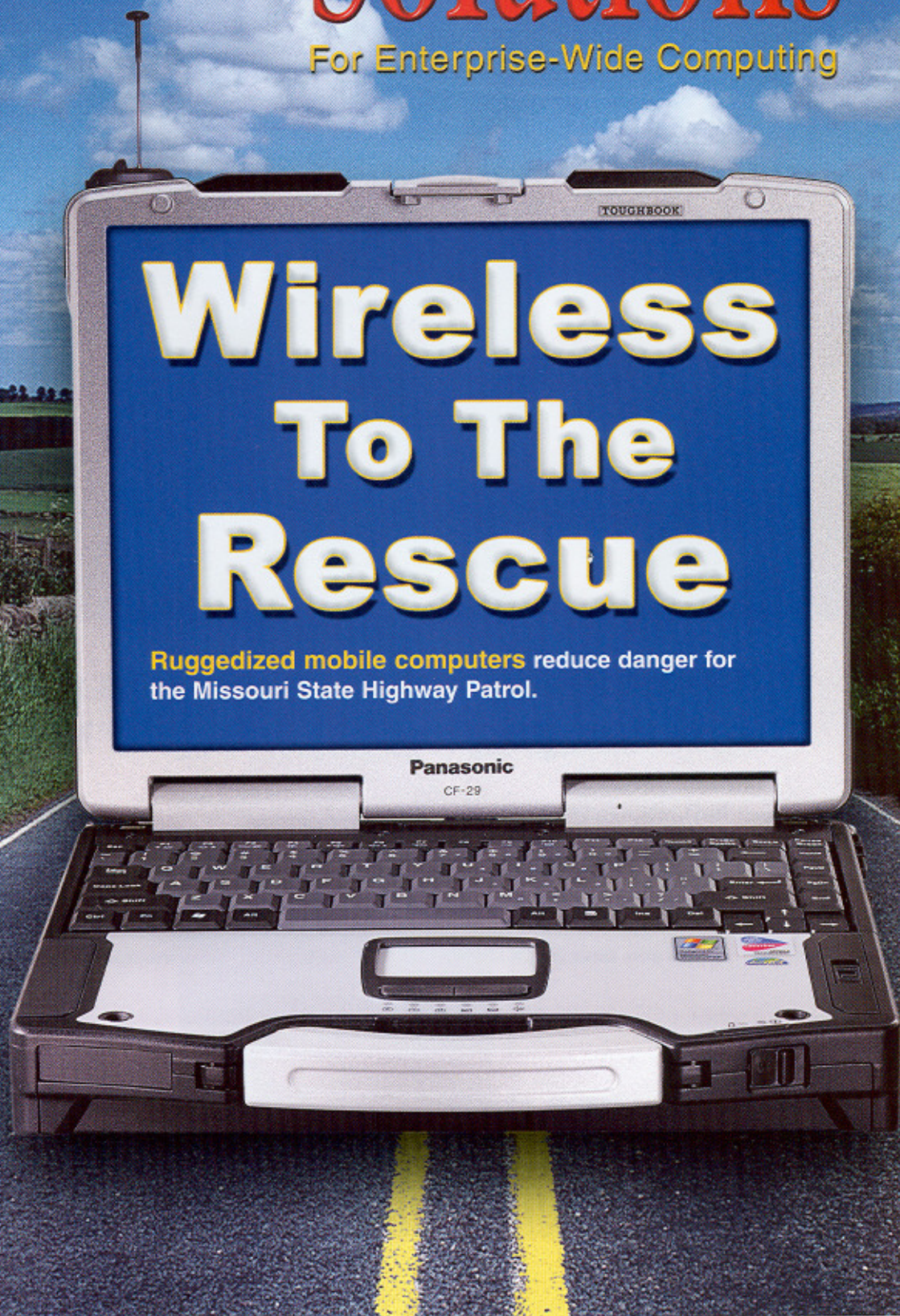
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For Enterprise-Wide Computing



Laptops Cure Communications Bottleneck

▲ Rugged laptop computers speed up background checks and reduce danger for Missouri State Highway Patrol.

by Steve Webb

In 1999, an officer in the Missouri State Highway Patrol (MSHP) was fatally shot after stopping a suspect who had left a truck stop without paying for gas. Although an alert had just been issued indicating that the man was armed and suicidal, the officer never received that notice via the patrol's two-way radio system. The officer had called the suspect's license plate number into the dispatch center, but the dispatcher there was busy fielding calls. By the time the dispatcher was able to relay the information, the officer had been shot following a struggle with the suspect. Captain Kim Hull, technology projects director for the MSHP, says the tragedy might have been prevented if the officer had been using the wireless, rugged laptop computers the department began using in 2002. With those devices, the officer would have typed the license plate number into his keyboard, and seconds later a notice alerting him to the danger of the situation would have appeared on his computer screen.

"Without a doubt, the most important motivation for this project was officer safety," says Hull. The MSHP now has 638 of the Toughbook 28 units by Panasonic (Secaucus, NJ) in its squad cars, and recently purchased 94 units of the updated Toughbook 29 model.

Determine Benefits Before Making Selection

Before purchasing the laptops in 2002, the MSHP conducted a two-month test in which 18 officers were issued the rugged laptops and 14 others continued using the two-way

Installation Profile

Technology User: The Missouri State Highway Patrol (MSHP) is a full-service police organization with 1,012 officers and a civilian office staff of 1,095.

Problem: When using the highway patrol's two-way radio system, officers sometimes had to wait 5 minutes to obtain a radio frequency to speak with dispatchers. The long wait posed a danger to officers who needed to call dispatchers to report incidents and obtain background information on potentially dangerous suspects.

Solution: Over the past two years, the state installed Toughbooks from Panasonic (Secaucus, NJ) in squad cars. Officers retrieve background data in seconds by entering a license plate or driver's license number into the computer.

radios. Officers using two-way radios called a dispatcher to obtain information on suspects. Due to the heavy call volume on the radio network, officers sometimes had to wait up to 5 minutes for an available frequency. Officers using the laptops, on the other hand, retrieved background information in seconds.

The study, which involved troops in Kansas City and Jefferson City, determined that officers using the laptops con-

ducted between 50% and 115% more background checks because of the greater speed of the system. Due to the increase in inquiries by the officers using the laptops and the positive comments from officers about the technology, the MSHP agreed to purchase the units. The highway patrol picked the Toughbooks because of their reputation for dependability and durability. The units are designed to withstand spills, drops, and vibrations caused by bumpy roads. FormRunner integration software from IBM Corp. (Armonk, NY) enables officers to access the state's motor vehicle, driver's license, and warrant data.



By using rugged laptops, Missouri State Highway Patrol officers conducted up to 115% more background checks than they did using two-way radios.

Boost Morale, Productivity

Hull says several officers have told him the laptops have significantly increased their productivity. When an officer stops a car with multiple people in it, background information can be obtained by typing in the driver's license number of each person, rather than waiting for an available radio frequency and then obtaining the information from a dispatcher. Officers also can conduct research on the laptops because they provide access to the state's database of reports, including stolen vehicles and missing persons data. In addition, officers can instantly send messages to each other rather than relying on the spotty two-way radio coverage. In fact, a 20-year veteran told Hull that the laptop is the most useful tool he's ever been given on the job. "He said having the information within a few seconds of entering it gives the officer a big edge," Hull says.

The highway patrol received federal funds to purchase 150 of the Toughbook 28 units in 2002 and 431 of the units in 2003. Federal funds weren't available this year to buy the laptops for the remaining officers in the field, but the MSHP used money from its own budget to purchase 94 of the new Toughbook 29 models. "The laptops have really proven their value, so we've sacrificed in a couple areas to go ahead and get everybody else up to speed on them," says Hull. The MSHP reduced spending on other portions of the IT budget to pay for the computers. The cost per unit is \$6,800, including about \$5,000 for the laptop and docking station, \$900 for the modem and antennas, and \$900 for the software. □

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