

The book cover features a dark blue background with a faint, light-colored map of a city grid. A white line graph with several peaks and valleys is overlaid on the map. The title 'MEASURING UP' is written in large, bold, yellow capital letters. Below it, the subtitle 'THE BUSINESS CASE FOR GIS' is written in smaller, yellow capital letters. The authors' names are at the bottom in blue italics.

MEASURING UP

THE BUSINESS CASE FOR GIS

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County monitors false alarms, raises revenue, and reduces costs

SECTOR Public safety
INDUSTRY Government

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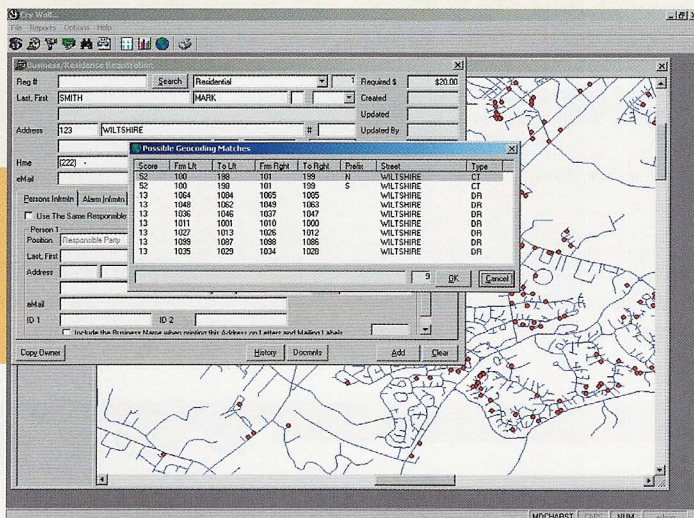
In 1999 emergency service personnel in Charles County, Maryland, knew that the growing number of false alarms was affecting service delivery. Diverting law enforcement, fire, and emergency medical workers and resources from critical property and lifesaving activities cost time and money and placed personnel in risky situations that otherwise could have been avoided.

Less than an hour commute from Washington, D.C., historic Charles County has a population

of 120,000 and is similar to a lot of other cities and counties across the country that are experiencing spiraling costs due to false-alarm responses. At the time, Charles County's alarm calls accounted for nearly 15 percent of all emergency calls for service, and nearly 98 percent of the alarm calls were false. A 10 percent annual increase in new alarm systems compounded the problem. At a weighted average cost of \$225 to respond to a single emergency, the county estimated that it was spending more than \$2.2 million a year to respond to approximately 9,800 alarms. That cost represented \$18 in taxes for every person in the county.

Charles County developed a three-step plan to mitigate the problem. Like many jurisdictions, the county council first formulated and passed a strong false-alarm ordinance that defined the problem

CryWolf, a GIS software, has relieved Charles County, Maryland, of performing many manual procedures by automatically tracking and billing alarm calls.



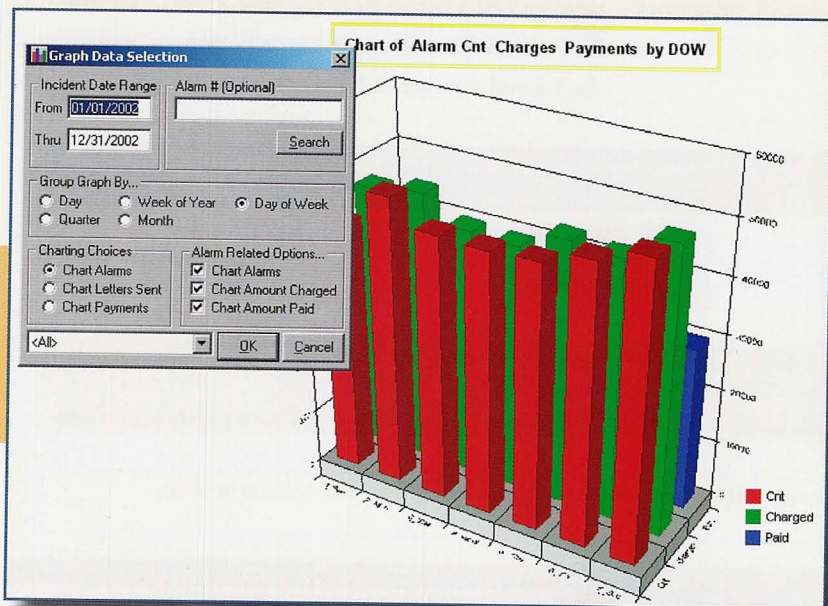
and established requirements to deal with it. The ordinance requires registration of all alarm systems in the county, subjects excessive false alarms to graduated fines, and ensures that citizens receive notice of all false alarms and due process through a formal appeals process. It also established a comprehensive program to educate the public about false alarms and describe ways to avoid them.

Next, the county established a False Alarm Reduction Unit (FARU) within the Department of Emergency Services to enforce the ordinance. In other jurisdictions, this responsibility has been successfully assigned to other departments such as police, sheriff, finance, or licensing. The key is to provide the public a central contact and focus the leadership necessary to combat the problem.

Charles County established procedures to implement the ordinance as its final step. Initially, it

used manual procedures but soon found that the complexities involved in tracking false alarms, generating alarm notices, billing, managing receivables, and following hearings and appeals required an automated system. CryWolf software, designed by AOT Public Safety Corporation and powered by MapObjects software from ESRI, is specifically used for tracking and billing alarm calls. It helped relieve the burden of manual procedures in Charles County. Approximately forty cities, counties, and regions throughout the United States and Canada use the software, which generates revenue by invoicing fees and fines as well as reducing time and money spent on responding to false alarms.

Charles County soon began processing more than eight hundred false alarms per month with CryWolf software. The county's computer-aided dispatch system automatically transfers false-alarm data daily



to CryWolf. It generates notices and invoices that are mailed to the alarm owners. This prompts owners of unregistered alarm systems to register immediately. The system also helps manage finances by aging receivables, highlighting slow payers, and generating late notices. Soon after installing the system, Donald P. McGuire, the county emergency services director, remarked, "With the CryWolf application, we've been able to accomplish more in four months than we were able to do in the preceding sixteen."

Within the first year, the number of false alarms fell, and registration and false-alarm fine revenue increased. Annual alarm company registrations soon more than doubled. During the next twelve months, alarm system registrations increased almost fivefold, registration and fine revenues dramatically increased to \$250,000 annually, and CryWolf helped reduce false alarms in Charles County approximately 20 percent. At an average cost of \$225, the county estimated it saved \$300,000 per year in personnel and equipment costs.

If the 9,800 false alarms tracked by Charles County in fiscal year 2000 had continued to increase at their historic annual rate of 10 percent, the number of false alarms would have reached more than 13,000 during the 2003 fiscal year. Instead, actual false alarms were 6,815—nearly half those expected. The approximately 6,200 false alarms eliminated represent an annual savings in response costs greater than \$1.3 million. This is in addition to the nearly \$400,000 in registration fees and false-alarm fines that the county collected during the year.

With the new system, Charles County officials can devote more time to community education, crime prevention, heightened response time, and greater police presence. Alarm users better understand the impact of repeated false alarms and frequently inspect and update their systems.

According to McGuire, the implementation of the CryWolf application "has made FARU far more efficient and effective in reducing false alarms." He looks forward to its continued contribution to reducing the false-alarm rate in Charles County. ☉

Estimated FY2003 cost without GIS	FY2003 cost with GIS	Annual response cost savings with GIS
13,000 alarms/year × \$225 \$2,925,000/year	6,815 alarms/year × \$225 \$1,533,375/year	Saved: 2,925,000 -1,533,375 \$1,391,625

Plus revenue generated—
registration fees and false-alarm fines.

\$387,000/year (FY2003)—A 1,300 percent increase from FY1999.

Together, the cost savings and fee/fine revenue produced a total financial benefit of approximately \$14.80 per county resident.

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ADDITIONAL BENEFITS

