



Breaking Into The Public Safety Market

▲ Sterling McKanna, president of Mobile Dynamics Computers USA, has found his niche in selling ruggedized wireless notebook computers to the public safety market. In his first year of business he plans to reach \$1.2 million in sales and expand to become a system integrator.

by Dan Schell

Company: Mobile Dynamics Computers USA

Headquarters: Carrollton, TX

Founded: July 2000

2000 (July-Dec.) sales revenue: \$1 million

2000 sales growth rate: N/A

2001 projected sales revenue: \$1.2 million

2001 projected sales growth rate: 20%

Employees: 3

Principals: Sterling McKanna, president

Markets: public safety, military

Vendors: Itronix

Customers: Air Force, Coast Guard, Navy, various Texas police departments

Phone: (214) 731-8366

Web site: www.mdcusa.com

E-mail: sterling@mdcusa.com

The two tornadoes that touched down on March 28, 2000 in Fort Worth, TX created one of the worst natural disasters in the city's history. The five-mile-long swath of destruction included thousands of blown out skyscraper windows, overturned cars, and destroyed homes. Public telephone, cell phone, and pager services were all knocked out. Consequently, the 800 Mhz (megahertz) public safety system was overloaded, resulting in low transmission and limited broadcast range. The only communication system that prevailed amidst the chaos was AT&T's CDPD (cellular digital packet data) network. Luckily, the sheriff's department owned 45 Itronix ruggedized wireless mobile data computers (MDCs) that communicated via the CDPD network. Using the MDCs, emergency operations were coordinated throughout the night until the other communication systems were restored.

Sterling McKanna, president and owner of Mobile Dynamics Computers USA (MDCUSA) (Carrollton, TX) was the VAR who sold the Itronix MDCs to the Tarrant County (Fort Worth) sheriff's department. "The most critical network in any municipality is its 911 network. That's what I provide support for," McKanna said. Fort Worth is just one of five Texas police departments that



McKanna lists as customers. Although he tends to stay regional, he does have installations in places as far away as Alaska and Guam. Those types of distant projects are usually done for the Coast Guard or another branch of the military.

A Niche For Rugged Wireless Data Collection

Prior to starting MDCUSA in July 2000, McKanna was VP of marketing and sales for Arbor Systems, Inc. Founded in 1988 by John Watters, Arbor Systems



"If you make a mistake in this business (public safety) everyone knows about it."

Sterling McKanna, Mobile Dynamics Computers USA

had built a strong customer base as a hardware and software provider for CTOS (convergent technologies operating system) network technology (similar to a local area network). "The CTOS market declined because the technology was expensive and outdated," McKanna explained. "Therefore, we realized we needed a new product." McKanna went to the Coast Guard marine safety office in Port Isabel, TX, Arbor Systems' largest CTOS client, and started asking the officers what type of field equipment would make their commercial vessel inspections safer and faster. Their answer was a rugged wireless data device for onboard field reporting. That led McKanna to Itronix. When the owner

of Arbor Systems retired and dissolved the company, McKanna started his own company and positioned MDCUSA as a dedicated provider of rugged wireless data collection devices. He expects to end 2001 with \$1.2 million in sales revenue.

What Kind Of Data Will Be Transmitted?

McKanna described that first Coast Guard installation as "pounding a square peg into a round hole." In other words, the Itronix product was not originally designed for that type of application. Instead, the units were being used almost exclusively in the telco and service industries. The Coast Guard planned to use the units to map shipping channels. "Initially, all they wanted was a product that could survive the salt water," McKanna explained. "So, I put a unit underwater in the ocean for 20 minutes while it was still running. After I took it out, I let it sit for a few days. The only damage was some slight corrosion around the serial and parallel ports." This demonstration convinced the Coast Guard to purchase the units. However, after installing the Itronix laptops, McKanna started getting calls from the Coast Guard about problems they were having interfacing external radios with the units. "Integrated communications was never part of the original plan. I evidently didn't understand enough about their application or their needs."

McKanna, with support from Itronix engineers, fixed the problem and learned a valuable lesson in the process. Now he always tries to discover exactly what a customer wants its network or device to do (e.g. transmit voice data only or transmit text and images). That's the reason why when he's working with a new police department, he'll ride in a patrol car with officers and talk to the network adminis-

EDGE Technology Offers 384 Kbps

Lieutenant Rob Durko, communications director of the Tarrant County (Texas) sheriff's department, is looking forward to EDGE (enhanced data rates for global evolution) technology. That's because Lieutenant Durko's department currently uses a CDPD (cellular digital packet data) network that transmits data at 19.2 Kbps (kilobits per second). EDGE technology provides wireless communication at speeds of up to 384 Kbps. "With that kind of transmission speed we will be able to transmit simultaneous voice, text data, and video between patrol units and headquarters as events are happening. You're looking at changes that could impact law enforcement as fundamentally as onboard cameras did," Durko said.

VARs who plan to add this technology to their existing product line should have little difficulty doing so. EDGE is based on GSM (global system for mobile communication) and requires relatively small changes to network hardware and software. In fact, many devices, like Durko's Itronix X-C 6250 Pro laptops, are already designed to accommodate an EDGE modem.

The EDGE standard uses the same time division multiple access (TDMA) frame structure and existing cell arrangements as GSM. This makes the technology particularly beneficial to existing operators seeking a way to roll out wide-band services rapidly and cost-effectively across large areas of existing networks. EDGE is expected to be commercially available this year.



trator before installing a system.

CDPD Is Preferred In Law Enforcement

MDCUSA's typical customer is a midsized police department with up to 200 officers. Most police departments use communication systems that are permanently mounted in a vehicle. These systems display text and other information such as mug shots and fingerprints. However, the trend is to move toward hardware, like the laptop, that can be removed from the vehicle and still maintain radio communication.

"Standard police radio networks are becoming overloaded with voice and text data," stated McKanna. "This has made a lot of radio systems obsolete that were just installed in the past few years. That's why CDPD has become the preferred specification." McKanna said the only limitation to using CDPD for sending video, voice, or graphic files is its speed (19.2 Kbps [kilobits per second]). However, CDPD is twice as fast as 9.6 Kbps standard RF (radio frequency) systems



Before working with a new police department, Sterling McKanna, president of Mobile Dynamics Computers USA, rides in a patrol car with officers to discover what they want the new system to do.

but significantly slower than wired networks. He predicts that new specifications like EDGE (enhanced data rates for global evolution) (see sidebar on page 52) will be the future technologies that transmit larger multimedia files.

Currently McKanna provides only the hardware and public safety software for his clients. He contracts with Microsoft certified engineers for all integration services. His future plan, though, is to add more technical staff and become a systems integrator. He also plans to add a Bluetooth-enabled (Bluetooth is

a short-range wireless technology) PDA (personal digital assistant) to his product line. With this unit, the customer could leave the vehicle yet still have contact with the vehicle's Itronix laptop via Bluetooth. For example, "In the Coast Guard, you don't want to be carrying a 7 pound laptop when there are 5 foot swells and you're boarding a vessel," McKanna explained. "Instead the boarding officer carries a Bluetooth-enabled PDA. The same would be true for a

VDC Predicts Significant Growth For Ruggedized Laptops

Some people would say that Sterling McKanna's approach to his business is limited. After all, McKanna, who is president of Mobile Dynamics Computers USA (MDCUSA), sells almost only Itronix (Spokane, WA) products. However, recent studies from Venture Development Corporation (VDC) seem to support McKanna's business approach of focusing on ruggedized personal computers like Itronix. VDC expects this market to grow from \$1,498 million in 1999 to over \$2,481 million in 2004 - at a 10.7% compound annual growth rate (CAGR). The studies indicate that communications and service providers are the key markets for these types of products.

In response to this trend, Itronix has introduced the GoBook, a ruggedized notebook PC with integrated wireless communications. The GoBook includes a Pentium III or Celeron CPU (central processing unit), 256 MB SDRAM (synchronous dynamic random access memory),



Studies indicate that communications and service providers are the key markets for ruggedized laptops like the Itronix GoBook.

and up to 20 GB of hard disk space. It also has a 12.1-inch color touch screen.

Change Networks In The Field

"All of my customers require access to remote data sites by using radio frequency (RF), CDPD (cellular digital packet data), or wireless LAN (local area network)," McKanna said. The GoBook supports all of those radio options, in addition to GSM (global system for mobile communication) and Motient technologies. What's more, it incorporates Itronix's new CRMA (common radio module architecture) field-upgradeable wireless capability. This feature allows users to upgrade radio modems or change

networks from the field. Already more than 1,500 GoBooks have been sold to Sprint and 1,000 more to Telus-Verizon for their field service workforces.

For More Info. On Itronix

Go To www.itronix.com



police officer entering a potentially dangerous environment."

How To Get A Military Contract

"If you make a mistake in this business (public safety) everyone knows about it," McKanna said. That's why he goes out of his way to make sure his products serve his customers' needs. For example, he recently paid \$8,400 for a customer to have all 35 of its Itronix units upgraded with the newest computer screen technology. The new technology improved the viewing of the screen in daylight. Since this technology wasn't available when the units were first installed, McKanna wanted to assure his customer's satisfaction by providing the upgrade.

As a small VAR, McKanna relies on leads from customers for new business. However, he also uses direct

mail and exhibits at public safety trade shows. Otherwise, as with his military clients, he has to resort to good old-fashioned cold calling. "I didn't have a contact in the military so I just started calling different bases. Eventually, I even called the Pentagon. It literally took me years to get a contract." Now he has Itronix laptops being used for aircraft maintenance in both the Navy and the Air Force. McKanna says that his customers demand the same thing he does: a product that has successfully been tested in the field. "Just because something works in your office doesn't mean it will work in a vehicle," he explained. "I'll make the sale if I can prove that the device and its network can withstand extreme field conditions like being dropped or even staying operational after a tornado." □

<p>MOBILE DYNAMICS COMPUTERS USA</p> <p>MDCUSA.COM</p> <p>Developers of MobileCOP & MobileLINC</p> <p><i>Specializing in State / Local Police & Military Rugged Wireless Mobile Computer Applications</i></p> <p>ITRONIX X-C 6250Pro & GoBook</p>	<p>Sterling McKanna President / CEO</p> <p>4253 Hunt Drive Suite 1110 Carrollton, TX 75010</p> <p>214 435 7651 24HR Cell 214 731 8366 Office 214 731 8616 Fax</p> <p>e-mail: smckanna@mdcusa.com</p>
---	---