



Using Information Byproducts

When I think about the stereotypes of “technophobia” and environmental unfriendliness the public has hung on our industry, I’m reminded of Michael Crichton’s *The Andromeda Strain*. One of a group of scientists analyzing a mysterious pathogen from space figures out how the awful thing grows and remarks, “Andromeda consumes everything, wastes nothing.” With those words he might as well have described our industry, which routinely recycles fly ash, slag, and wastewater.

Now comes the informational counterpart to material reuse. Just imagine how powerful the ability to track operating data from several components of a concrete delivery truck would be. The data have always existed; the question has been how to capture and put them to good use.

Such uses of otherwise wasted information byproducts must have

inspired the developers of TracerNET Corp.’s Intelligent Mobile Asset Tracking (IMAT) platform. I got a glimpse of the information recycling future at the company’s World of Concrete booth in Las Vegas last March.

Unique to the system is a Mobile Data Unit (MDU) equipped with a Global Positioning System (GPS) receiver and a wireless Internet Protocol (IP) modem. The MDU can interface with up to about 20 truck components, such as the engine in a mixer truck or flatbed truck or a truck-mounted

mixer. This system provides two-way text messaging as well as automatic vehicle location (AVL) without driver intervention like several others, but the similarities end there. A traditional limitation of AVL systems is their inability to pinpoint truck waiting time, since GPS can’t provide real-time status by itself. This system overcomes this limitation by processing operating data. The large company can integrate the system with an existing network, and the small company can use the Internet to send data through TracerNET’s servers.

The MDU senses drum direction and uses mathematical algorithms to sense whether a truck is charging or discharging, and it sends this data back to the dispatch computer via modem. The “begin pour” time stamp is determined easily enough. “End pour” is a little trickier to determine when the contractor wants a few yards of concrete here and more over there. In this case, the system can be adjusted to report several begin-pour and end-pour readings per truck.

The dispatcher can draw appropriate location “hot zones” on the computer screen with a mouse or by entering a street address. The system can report “leave job” and “back at plant” time stamps automatically by measuring time interval against

► Web-enabled on-board intelligence reveals just how efficiently a fleet is operating.

TracerNET

TracerNET Corporation

OVERVIEW MDU 200 TRACERFLEET TRACKING IMAT TAG

TracerNET's solutions provide

- Intelligent integration of critical information
- A platform on which to grow and expand
- On-vehicle status for accurate and reliable delivery information

TracerFleet™ provides the ultimate benefit from wireless fleet management by fully integrating with your existing dispatching and back office systems, regardless of whether they are homegrown or commercially available solutions. With advanced mapping features, you can monitor fleet operations with real-time precision. TracerFleet also provides two-way messaging capabilities with on-boardly fixed, parameter based and location based messages. The storage and manipulation of sensor readings and delivery information provide the data for all business functions to analyze and streamline operational performance.

TracerIMAT™ is a turnkey offering for organizations looking for an easy to implement solution available over the Internet. TracerIMAT allows you to see your fleet's critical information in real time, both anywhere that has access to a standard web browser. The easy-to-use interface allows to streamline deployment into your fleet for the fastest use of the mapping, messaging, and job status information in order to gain immediate benefits.

TracerNET™ MDU 200 is the in-vehicle computing system that collects and processes GPS position and data from vehicle-mounted sensors to automatically track job status. Progress reports including time, vehicle position and customer-specific status information, are reliable and automatically communicated to dispatch at critical junctures—without operator intervention. Drivers do not have to push buttons or call dispatch at the completion of each task.

Regardless of your fleet size, TracerNET is a strong investment for your business. Our solutions are based on our **Intelligent Mobile Asset Tracking™ (IMAT) platform**, which is scalable and expandable to meet your needs today and in the future.

The Intelligent Mobile Asset Tracking (IMAT) platform converts operational data from truck components—an engine or truck-mounted mixer, for example—to useful dispatching and maintenance information.

engine rpm and by taking vehicle “hot zone” location into account.

Sales and accounting can format the data from the system’s databases and put them into spreadsheets. When quoting a job, sales can use these data for pricing so that—imagine this—a company can recover its operating costs. Also, the dispatcher can use the data to schedule trucks with reasonable accuracy for similar jobs.

Another unique feature is the system’s ability to capture data for the fleet manager. Using the software, the system can notify the fleet manager automatically when oil pressure or engine temperature sensors detect problems, for example. The fleet manager then can decide which trucks to take out of the revenue stream for service. If a critical fault occurs, e-mail or a page from the MDU indicates to the fleet manager which part is failing. He can grab a replacement, jump in the pickup, alert the driver by e-mail or two-way radio to pull off the road, and fix the problem—maybe even in time to save a hot load. Contrast this with the traditional scenario of the fleet manager receiving a call from a stalled driver through dispatch, jumping in the pickup, plugging a laptop into a stalled truck engine’s computer, determining the problem, driving back to the plant, getting the appropriate replacement part, and then driving back to the stalled truck.

If necessary, the system can request more concrete for a given job with fixed messages. Also, it can alert either dispatch or the fleet manager or both, depending on managerial preference, when a truck records a critical fault code. The dispatcher might reroute another truck by using fixed or free-form text messaging. Imagine the job superintendent’s surprise if a truck appeared in the distance just moments after an order was placed.

Theoretically, customer accounts could be made accessible to drivers if order tickets were no longer necessary, and drivers would know whether to accept COD credit card orders only. With

Congress having passed a law allowing electronic signatures a year ago, the system can suit a module for this purpose and a paperless operation. The system also suits credit card swipe modules. Also, the producer can have on-board printers installed in trucks to print job tickets on the spot.

If this information recycling thing catches on, our industry will get the “technophobic” monkey off its back. Improved customer service just might turn concrete into more of a worldwide epidemic than it already is, something the bacteria threatened to do in Crichton’s book.

— DON TALEND

For more information about the TracerNET system, circle 1 on the reader service card.

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