

Crossing Technologies: One Hot Topic

If you think a story about a systems integrator that sells document management software doesn't pertain to your data collection-oriented business, you're wrong.

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Systems integrator ARvee Systems creates its own document management software. If we didn't believe in crossing technologies at *Business Solutions*, ARvee Systems would never be the subject of a feature story under a heading of automatic identification and data collection (AIDC).

However, ARvee Systems' president and co-founder Mike Gencarelli shares our interest in crossing technologies. VARs and systems integrators need to integrate a variety of technologies to provide customers with viable solutions.

"All of our installations involve our document management software, *millennium::OMS*," Gencarelli explains. "But in most instances, the software needs to be coupled with data collection devices. We don't even think of our software and data collection devices as separate technologies. We integrate the tools our customers need to provide the most efficient system possible." ARvee Systems' installations include data collection devices, such as handheld computers, radio frequency identification (RFID), voice verification, and storage.

The company, which was founded in 1990, built its foundation in specialized software development and technology consulting. ARvee Systems' installations are a combination of three fundamental aspects:

- a need for document management software
- a need for a custom solution - not a problem that can be solved with boxed or off-the-shelf solutions
- a need for multiple technologies to complete the solution.

What makes the company different, says Gencarelli, is not understanding a variety of vertical markets, but understanding the technology that can be applied to these markets. ARvee Systems has shied away from some vertical markets that are already inundated with specific vertical market solutions, such as the legal and medical billing arenas. The company prides itself on remaining horizontal in its market pursuits.

"Every time we enter an industry," explains Gencarelli, "we are asked how much experience we have in that area. We are proud to say we have no experience as a vertical market systems integrator. We feel this is a benefit to our customers, because we have no preconceived notions of what solutions they need. We always bring a fresh approach. That makes some of our potential customers wary; but by being fresh, we show that we are continuing to grow and update. Business is business no matter what you do. We just happen to have a unique approach to solving business problems."

Technology Knowledge Keeps Firemen Safe

Inexperienced with fire departments, ARvee Systems implemented an RFID solution with its document management software for the Mask Service Unit of the New York City Fire Department. The unit wanted to implement RFID for tracking breathing apparatuses, such as oxygen tanks.

"One VAR pitched a solution that included readable/writable RFID tags," Gencarelli explains. "The VAR didn't realize that those tags would explode when exposed to extreme heat. This is a perfect example of a company not understanding the technologies it is proposing. Memory tags are powered by lithium batteries, which explode under extreme heat. Those tags would imbed in a fireman's back like a bullet if they exploded. We knew that with such extreme conditions, bar codes would melt, burn, or be unreadable due to high heat and thick smoke. We produced a solution that contained a non-battery RFID memory tag from Motorola."

"The fire department is tracking inventory of items it can't afford to lose," Gencarelli continues. "Oxygen tanks must be tested, filled, and disposed of when they're no longer

usable. A fireman could die if there's a mistake in the system. It was important for us to mix the right technologies and understand the fire department's processes. Our software came into play because all equipment testing needed to be documented."

According to James Laurice, vice president of operations and company cofounder, firemen needed to be alerted if a tank was no longer usable. "The Mask Service Unit takes care of all breathing apparatuses for the entire fire department. They go out every day to pick up used oxygen tanks from different fire stations. When the tanks are brought to the unit, they are scanned, and the information is sent to a computer. The computer shows which tanks are scheduled to be hydro tested (tested with water), which have been refilled too many times, and which are past the normal 10-year life cycle. Right away, these firemen know not to refill the tank with oxygen. Since the testing area is very noisy, a loud bullhorn and red strobe light alert the firemen if the tank is due for any testing."

"There needed to be an audio and video message, since the unit can be very noisy," Gencarelli explains. "You can't design a computer to reach out and slap the firemen."

Say That Again

ARvee Systems also integrated voice recognition software with its document management software at a medical records company wanting to integrate speech capture. "The medical company we worked with provided the language models for very specialized medical applications like ophthalmology and radiology," Gencarelli explains. "We provided our document management software coupled with speech recognition software. While anyone can go to a store and buy speech software and install it on a computer, that doesn't mean the software is integrated into the solution. We took all the aspects of document management and added speech recognition as a document management function. Next, we tied these elements with specific language elements related to medical specialties and medical records."

Understanding Technologies Is Vital

"Most VARs can cross technologies by understanding the technologies that they are trying to integrate," Gencarelli explains. "Too many companies try to integrate, push, or sell technologies they don't understand. I call it the 'sale of the month.' Many times, VARs or systems integrators will sell the product they're getting the best deals on from their distributors that month. Suddenly, this technology happens to fit every client's requirement in that timeframe."



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"If we think a technology could be used in conjunction with our software, we'll research it," Gencarelli continues. "Obviously, we don't know every technology on the market, but we can research the ones we know are available. The next step is to experiment. We have to spend money to understand these technologies. We need to make sure that the technologies work before we try to sell them to a client. For every strong technology, we find five weak technologies."

Not only must VARs understand the technologies they are implementing, that knowledge must be strong enough to allow VARs to offer continued support of their installations. "Too many VARs will implement a technology that they can't support," he continues. "They lose money in post-sales service, and their customers are left with an unsupportable technology."

ARvee Systems also integrates storage systems, such as redundant array of independent disks (RAID), which can be used to back up the data collected by the document management software. "About 60% of our installations involve some sort of storage system," comments Laurice. "Storage technology and computer processing power is growing at an extremely fast rate. Often, if our customers have the money, they want to upgrade to a faster storage system. We find ourselves upgrading many of our customers. They take their existing storage systems and back up another area, such as an e-mail system."

Bring On The Difficult Installations

ARvee Systems doesn't want easy-to-install solutions. "Why should we try to force a custom solution on a company if a boxed solution can solve its problem?" Gencarelli asks. "If the end users can buy whatever they need right off of the shelf and get a lower price than we can offer, they will be much happier with the result. We want companies who have difficult problems."