

Al Jaber Tags Its Vehicles

The construction company is using RFID to track its large fleet of vehicles in the United Arab Emirates.

By Jonathan Collins

Mar. 31, 2006—Since October of last year, Al Jaber, a United Arab Emirates (UAE) construction company based in Abu Dhabi, has been working to place active RFID tags on its fleet of 20,000 construction vehicles and trailers. During the RFID deployment's first phase, completed in February, the company tagged 2,000 bulldozers, cranes, cars, truck and other assets.

The goal of the tagging is to help the company ensure that its vehicles, whether used on its own construction sites or leased to other construction companies, are reliably checked in and out of their storage facilities.

"The company believes that many drivers are taking the vehicles and either using them [for their own personal benefit] or rehiring them out," says Tapan Desai, the international sales manager at Amtel Security Systems, a Miami-based company specializing in access control, parking and security systems. "If a vehicle is only supposed to be out for 10 days but isn't returned for 15, Al Jaber wants to know so it can recover additional charges, either from their customer or the driver."

Amtel supplied the RFID tags and interrogators (readers) for Al Jaber's RFID deployment, as well as the design. So far, four sites have been fitted with RFID readers at the entry and exit gates, which automatically check tagged vehicles in and out at Al Jaber's storage lots. Two pairs of readers are deployed at each gate, with each side of the gate opening fitted with one of the pairs. Three of the sites are in Abu Dhabi, the fourth in Dubai. Only the site at Al Jaber's Abu Dhabi headquarters required four pairs of readers, as it has separate entrance and exit points.

The system is using Amtel's Secure Card 252 MF1 active RFID tags, which measure 86-by-54-by-5-millimeter in size and operate at 433 MHz. The only data stored on the tags is a unique ID number to identify the vehicles they are attached to. The fixed readers mounted at the gates of Al Jaber's sites are the Amtel Integrated RFID Master & Slave Controllers, which combine a reader and an antenna in a single unit.

At present, the data collected from the tags is used to manage the fleet only at the specific lot where the tags are read. However, upon completion of the project's second phase, expected in April, these four separate sites will be linked together via a network connection that will also integrate the collected RFID data into Al Jaber's JD Edwards enterprise resource planning (ERP) software.

"Once the data is integrated with the ERP system, Al Jaber will be able to automate the production of reports and alerts regarding its fleet," says Desai. By that time, an additional 5,000 vehicles and trailers are expected to be tagged. Afterward, Al Jaber will continue to tag its vehicles in batches of 5,000 until this summer, when the company expects to have placed tags on its entire fleet of 20,000 vehicles and trailers.

In addition, Al Jaber is also set to begin using handheld readers. So far, only one unit is being tested, but once deployed, the handheld interrogators will enable the company to locate and track trailers parked outside its premises on public roads.

"We couldn't put the fixed readers out there because it is a public road, but with the handheld readers, the trailers can be checked once a day and the details downloaded from the handheld into the site system," says Desai.

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