

# New Device Combines Active, Passive RFID

Identec Solutions has introduced the i-HUB, a device that can support active and passive UHF interrogators.

By Mark Roberti

Mar. 16, 2006—[Identec Solutions](#), a Lustenau, Austria, provider of radio frequency identification systems, has introduced the i-HUB, a device that can be connected to as many as eight RFID interrogators. The i-HUB can simultaneously control Identec's active interrogators, as well as passive UHF interrogators based on the Electronic Product Code (EPC) air-interface protocols.

"It's a totally modular RFID data collection and central processing unit," says Barry Allen, vice president of technology for Identec. "You can plug in different interrogator modules based on your application."

Identec currently offers interrogator modules that read its long-range active i-Q tags, short-range active i-D tags, i-B beacon tags (which continuously emit a signal rather than waiting to be woken up by an interrogator) and other vendors' EPC Class 1 Gen 1, EPC Class 0 Gen 1 and EPC Class 1 Gen 2 passive tags.

The hub uses the Linux operating system and Identec software to aggregate the RFID data and pass it to back-end systems via an Ethernet, Wi-Fi or USB interface. Identec has created generic application program interfaces (APIs) in C++ or .Net, so any programmer fluent in those software languages can integrate data from the i-HUB with back-end systems. In addition, Identec supplies an API for Oracle Edge Server and is working on one for IBM WebSphere, as well as an interface that will enable the i-HUB to transmit data to a back-end host in XML format.

"With the i-HUB, you can read passive and active tags and have one application program interface to your back-end enterprise system," says Gerhard Schedler, CEO of Identec. "This reduces both the cost and complexity of any deployment."

A company could connect the i-HUB, which sells for about 1,840 euros, to a passive UHF EPC interrogator mounted at a dock door and hook up one of Identec's active UHF interrogators mounted nearby. With this setup, the company could use the same system both to read tags on cases and pallets entering a facility, and to track reusable containers and other assets with active tags. The data would all flow through the hub into a single asset management system.

Identec also announced that it has partnered with [RFTrax](#), a Sugar Land, Texas, provider of asset management solutions. RFTrax's solutions combine several technologies, depending on the application, including sensors that can detect motion, temperature, humidity, radiation and other environmental conditions. They also have the ability to transmit the sensor data via GPS, GSM cellular communication and software to help companies track not just the location but also the condition of assets and products.

RFTrax is owned by [Fairfield Industries](#), a global company specializing in manufacturing electronic equipment, including seismic monitoring. RFTrax plans to offer customers the option of putting an Identec

interrogator inside shipping containers to read tags on pallets or cases of product while goods are still in transit. Such data would then be communicated to the back-end system via RFTrax's existing GPS and cellular capabilities.

The RFTrax's software lets companies set up business rules for condition alerting and corrective actions. For instance, if an object were moved when it wasn't supposed to be, the system could send an instant message to a security guard.

"The difference between what we offer and what RFTrax offers is that they can tell you about the health and location of containers; we can tell you what's inside the containers as they are in transit," says Identec's Allen. "They have a sophisticated sensor network; our expertise is in active RFID technology and battery management."

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