

Siemens Unveils Gen 2 System

Some components of its first UHF RFID system, targeted at companies looking to integrate RFID data into legacy systems, are now available.

By Mary Catherine O'Connor

Aug. 31, 2005—German industrial systems maker Siemens is rolling out a series of UHF RFID hardware and software components it says can be used to create an end-to-end RFID tag and tracking system. The system, Simatic RF600, is designed to help companies deploy an RFID system that integrates with their legacy manufacturing execution, supply chain management and enterprise resource planning systems.

"We're focused on integration," says Alex Stuebler, business manager at Siemens Energy & Automation, based in Atlanta. "We're not directing our business strategy on piloting. If customers want to test our products against another system, sure, we'll take some tags, antennas and engineers and show them how it works compared to brand X." However, he says, the system is designed for companies looking to deploy hundreds of readers at production, warehouse and retail facilities across the United States and around the world.

Stuebler says many companies required to meet tagging mandates have purchased readers and tags and from small RFID companies. Some have also bought middleware platforms. These RFID systems might work well for very small tagging operations, Stuebler claims, but as the size of the deployment increases, they won't scale.

Siemens is rolling out the components of the Simatic RF600 system in waves, starting with a fixed-position interrogator (reader), reader antennas and smart labels, all of which are now available. A mobile reader PC card and RFID printer-encoder will be offered in the first quarter of 2006, followed by reusable UHF passive tags in an industrial form factor in the second quarter. Finally, Siemens will introduce data and device management software and a globally operable mobile reader PC card in the third quarter of 2006.

The RF660R interrogator supports up to four antennas and comes with configuration software based on the Microsoft .NET infrastructure. The RF660R reads and encodes tags compliant with EPC Class 1 Gen 2, EPC Class 1 Gen 1 and ISO 18000-6, and has an operating system that can filter tag reads. It can be used in the 865-868 MHz UHF band in Europe and the 902-928 MHz UHF band in North America.

The RF660R has three communication ports: one Ethernet and two serials (RS 422 and RS 232). It also supports up to three input and three output devices. The RS 422 connection can link the RF660R to process controllers in a warehouse and, through an interface module, send data from the interrogator through Siemens' manufacturing execution system (MES) infrastructure, Simatic IT. From there, the company says, RFID can be integrated with supply chain management (SCM) systems or enterprise resource planning (ERP) systems. Alternatively, data integration with SCM and ERP systems can be done through the reader's Ethernet port using an application program interface (API). Siemens has a library of APIs that would be used to feed RFID data into a range of SCM and ERP platforms, as well as a software development kit (SDK) that includes APIs. Customers would use the SDK to develop customized applications for data integration.

Jeff Schaengold, an RFID specialist for Siemens, says the company will work with customers to develop the interface module with the Siemens MES. He notes that the firm has a long history of integrating data with SAP's Exchange Infrastructure and NetWeaver systems.

Siemens is outsourcing the production of its UHF smart labels, which it expects to be available in production quantities by the end of October. The company has not yet released the per-label price, but Schaengold says it will be moderate.

According to Schaengold, the firm developed the reusable passive UHF tags for use on pallets, totes and other reusable containers. The containers would be collected in depots, where the tags could be recommissioned. Siemens is developing and manufacturing the mobile RFID reader PC cards in-house and outsourcing production and development of the RFID printer-encoders.

Schaengold says the data device and management software will be used primarily for receiving shipments of tagged goods in distribution centers and warehouses, where large groups of tags need to be read, filtered and aggregated. The company first announced its plans to develop this UHF system in September of last year (see Siemens Announces UHF Products).

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