

Linking RFID to Enterprise Apps

New ConnecTerra software aims to simplify enterprise-wide RFID deployment, data collection and management.

By Jonathan Collins

Oct. 3, 2003 - Many middleware vendors have been developing products that filter data from RFID readers. Most of the products are based on Savants, distributed software created by the [Auto-ID Center](#) to provide smooth data and to find information related to Electronic Product Codes (EPCs). [ConnecTerra](#), based in Cambridge, Mass., has gone up the food chain and created what it calls the first platform to employ an application-level event-based (ALE) Savant.

ConnecTerra, which developed the software, describes an ALE Savant as an emerging standard that is going through the process of accreditation by the Auto-ID center. It's a higher-level software that lets companies set up Savants using pre-programmed definitions that manage how data from tags and readers from a range of vendors are used by enterprise applications.

ConnecTerra says the new platform, dubbed RFTagAware, would eliminate the need for much of the custom-made programming usually required when using a Savant to link readers and enterprise middleware with already developed code and application programming interfaces (APIs) for connecting to existing enterprise systems. The benefits to enterprise customers would be quicker RFID implementation and easier data collection and management.

ConnecTerra's RFTagAware system is comprised of three layers: software deployed on servers at the edge of the network (near the RFID readers), application servers to integrate that data, and centralized control servers that allow monitoring, management and security access across the system to be controlled from a central point.

The ability to centrally manage an enterprise-wide RFID system will be essential to large companies, says Kenneth R. Traub, ConnecTerra's chief technical officer. "A retailer like Wal-Mart will have half a million to 1 million readers," he says. "They can't have someone standing next to each reader, so there has to be a way to know that the readers are working correctly and anticipate problems."

Equally critical will be the need to effectively capture and filter the enormous amounts of raw reader data generated by such a system. "If businesses are to trust their decisions to data collected by remote autonomous devices often operating in harsh environments, they have to know how good that data is and they have to be able to manage the data," says David Douglas, ConnecTerra's senior VP for products and strategy.

ConnecTerra's new architecture collects data on servers running its Edge software. Based on the Auto-ID Center's Savant architecture, the Edge server software delivers an automated way to collect and filter raw RFID data. The company estimates that by using an ALE Savant, a customer could cut developer time by a third or even a half.

"With RFTagAware, there's no need to program each Savant," says Douglas. "That programming burden is lifted by including programming templates and procedures."

The next tier has RFTagAware Application Server software collecting data from the Edge servers and integrating that data into enterprise Web services or Java environments. Enterprises are using either .NET Web services or Java 2 Platform, Enterprise Edition (J2EE), to build applications and recognize data within their enterprise computing environments, which makes it easier to share standardized data across the enterprise and between business partners.

The top tier of the architecture, the RFTagAware Control Server software, provides a centralized console to manage, monitor and control readers and devices. It also handles the integration of RFID-collected data into enterprise management applications.

All three servers are based on the ConnecTerra's Device Computing Platform, initially developed for other distributed-network edge devices such as cash registers deployed throughout a retail chain. "There is already momentum for our RFTagAware platform in the retail space from the use of applications based on bar codes," says Douglas.

ConnecTerra plans to run three beta tests of the RFTagAware platform in the coming months. Pricing won't be set until the tests have been completed. The software, which runs on Sun Solaris, Linux or Microsoft's Windows NT servers, should be on the market by the end of the year. It will be competing in an increasingly crowded field: [GlobeRanger](#), [OATSystems](#), [Sun Microsystems](#) and others are marketing Savant-like software to manage RFID networks.

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