

William Frick intros UHF RFID security access cards; SkyeTek announces smaller, low-power UHF reader module; GAO RFID unveils EPC Gen 2 wristband; Wavetrend's reader gets safety certification for mining industry; Ekahau teams with ArrowSpan to offer mesh Wi-Fi RTLS; Augusta Systems products interoperate with BizTalk Server RFID.

Feb. 20, 2008—The following are news announcements made during the past week.

William Frick Intros UHF RFID Security Access Cards

Label and RFID tag maker [William Frick & Co.](#), headquartered in Libertyville, Ill., has added a new RFID badge to its SmartMark line. The CR80 is the size of a credit card and has an ultrahigh-frequency (UHF) EPC Gen 2 inlay with a read range of up to 12 feet. Because of the longer read range, the company claims the card is ideal for use by end users with more stringent security requirements, such as nuclear power plants, military bases or ports. The CR80 operates at a frequency range of 860-960 MHz, though it can be tailored to other frequencies, depending on customer needs and the inlays used, says Andrew Magnuson, William Frick's marketing manager. With the longer read range, companies can set up portals to track personnel as they move throughout a facility. Security access cards typically contain high-frequency (HF) RFID inlays, which have much shorter read ranges, requiring personnel to wave the card directly in front of RFID interrogators. "Because of the CR80's long read range, even when it is worn next to the human body, you could track people throughout a plant," Magnuson says. "It is important to be able to track where people are at any given time in high security areas." The CR80 is available now, with pricing dependent on quantity ordered.

SkyeTek Announces Smaller, Low-Power UHF Reader Module

[SkyeTek](#), a Boulder, Colo., designer of RFID modules, has introduced a new UHF reader module that is smaller than a matchbook and draws only a quarter of a watt of battery power. The M7, according to Martin Payne, SkyeTek's VP of marketing, could be used to turn a handheld PDA into an RFID interrogator. The M7 is a derivative of the SkyeTek M9, which is about half the size of a business card, draws a half watt of power and was designed for such embedded UHF applications as item-level inventory, printing and handheld reading and encoding. The new reader module could replace the HF RFID technology employed in machine-to-machine communications, such as robotic equipment used on factory floors, or it could be deployed in RFID-enabled shelving. "We're collapsing the traditional gap between HF and UHF," Payne says. "This expands the market for UHF and EPC Gen 2. Also, with the combination of the size and the power, you could now turn a PDA into a handheld reader. The M7 could be made into a compact flash (CF) card. With a higher-power RFID reader module, you would drain the battery of a PDA in a short time. But the M7 draws less power from the power source." Payne declines to provide specific pricing for the M7, but says its price tag is at least 20 percent lower than that of the M9, which costs \$199 at volume. The M7 is available now for original equipment manufacturers (OEMs), systems integrators, resellers and distributors. Support for international regulatory standards is expected to become available at the end of March.

GAO RFID Unveils EPC Gen 2 Wristband

[GAO RFID](#), a member of GAO Group, has developed a new RFID-enabled wristband designed for

patient care and tracking that leverages inlays compliant with the EPC Gen 2 and ISO 18000-6 standards. The company's GEN 2 RFID Wristband is made of non-allergenic silicone and has a read range that varies from 8.8 feet (2.7 meters) to a minimum of 4.2 feet (1.3 meters). Test results of the wristband were calculated using [Sirit's](#) 510 RFID interrogator, and read distances varied based on body type. The average read distance during testing was 6.3 feet (1.9 meters). GAO RFID, with offices in Toronto and Seattle, created the wristband using micro-machining techniques and patented processes. Ed Rucels, the firm's business development manager, declines to provide details, noting that the company was able to achieve the higher read ranges "in the way we fabricated the wristband." The GEN 2 RFID Wristband will go into production in the second quarter, and is currently being tested by a U.S. military installation (which has requested anonymity) that is using the wristband for patient tracking.

Wavetrend's RFID Reader Gets Certified for Mining Industry

[Wavetrend Technologies](#) has announced that its interrogator for its active 433 MHz RFID tags is now certified as Intrinsically Safe (IS) under the [International Electrotechnical Commission's](#) new IECex standard, which sets forth specifications relating to equipment for use in explosive atmospheres. When a device is designated as IS, this signifies that it can be operated in areas containing flammable gases or fuels because the device is incapable of igniting such gases. The RF reader was developed in partnership with Wavetrend's accredited partner NLT Australia—a subsidiary of [NL Technologies](#) (NLT), a designer and manufacturer of underground digital communications solutions for the mining industry—and is designed to be integrated into NLT's Northern Light Digital Network. The Northern Light Digital Network is a wireless local area network designed to withstand the rigors of underground environments. The Wavetrend interrogator could be employed to track personnel and assets tagged with active 433 MHz tags, and the collected RFID data (including each tag's unique ID number and location) could then be communicated via the Northern Light Digital Network. NLT currently has a number of major coal projects underway, both in Australia and overseas.

Ekahau Teams With ArrowSpan to Offer Mesh Wi-Fi RTLS

Real-time location systems (RTLS) provider [Ekahau](#), based in Saratoga, Calif., with offices in Virginia, Finland and Hong Kong, has partnered with [ArrowSpan](#), headquartered in Santa Clara, Calif., to begin offering an RTLS that leverages ArrowSpan's mesh Wi-Fi network. A wireless mesh network differs from a traditional Wi-Fi network in that the mesh technology untethers the multiple client access points that make up the network by allowing them to use dual 802.11a wireless technology as a backhaul connection, rather than utilizing Ethernet cables. That means a wireless network can span miles without the need for cables, thus reducing the costs and complexities typically associated with wireless networks covering large distances. At least one access point, also referred to as a base station, serves as the access point that backhauls data via cable to the Internet or other private network. The Ekahau RTLS solution includes the Ekahau Positioning Engine (EPE) server, battery-powered Wi-Fi tags and application software. The EPE server can track the real-time location of more than 10,000 objects on one server, Ekahau reports, and calculate up to 600 locations per second. According to Ken Wang, a spokesman for ArrowSpan, the combined Ekahau RTLS and ArrowSpan wireless mesh network offers an ideal solution for installations that are either larger in space, such as a campus, or where it is difficult

to deploy Ethernet cable, "such as a seaport, where pulling cable is very difficult." The solution is available now, Wang says.

Augusta Systems Products Interoperate With BizTalk Server RFID

[Augusta Systems](#), a provider of software and edge appliances designed to enable enterprise networking solutions, has announced it has partnered with [Microsoft](#) so its products can work with Microsoft BizTalk Server RFID device management and event-processing middleware. The integration will enable Microsoft BizTalk customers to manage and process data collected from Augusta Systems' sensors and RFID systems, such as SensorBridge, which manages a variety of data from edge devices including motion detectors, actuators, wireless sensor networks, RFID systems and imagery devices.