

RFID News Roundup

Presented here are news announcements made during the past week by the following organizations: Ardian, Avery Dennison, Cartesiam, Expeto, Ondas Networks, Pod Group, Sensormatic Solutions, Siemens Mobility, Smartrac, SOTI, STMicroelectronics, SUKU, Swissbit, TSC Printronix Auto ID, and the Zhaga Consortium.

NFC System from Smartrac, SUKU Authenticates COVID-19 Test Kits, PPE

[Avery Dennison](#)-owned RFID company [Smartrac](#), which specializes in the design and manufacture of labeling and functional materials, and blockchain startup [SUKU](#) have announced a digital verification solution to authenticate COVID-19 testing kits and personal protective equipment (PPE). The Near Field Communication (NFC)-powered platform enables instant verification of authenticity, the companies report, and provides supply chain transparency.

By equipping COVID-19 test kits and PPE with Smartrac's CIRCUS NFC tags, the solution utilizes Avery Dennison's Digital Identity Platform to feed tag data to SUKU's blockchain-based supply chain application. The data from the mobile engagement then confirms the authenticity and provenance of the tagged product for the purpose of reassuring customers and increasing trust. In addition, customers can view their PPE purchase price compared to the global average, thereby providing transparency to help reduce price gouging.

The test kit solution allows organizations to access real-time data from kit results so they can make informed decisions regarding the allocation of doctors, facilities and resources. By opening a communication channel with healthcare officials, the solution provides patients with guidance on appropriate behavior in the event of a positive test result.

“By combining Avery Dennison’s Digital Identity Platform and Smartrac’s NFC technology with SUKU, we are enabling true transparency for users of COVID-19 testing kits and PPE,” said Francisco Melo, the VP and general manager of Avery Dennison Intelligent Labels, in a prepared statement. “Pairing each physical item with a unique digital identity enables visibility of where the items are being distributed, helping healthcare providers, governments and consumers make better, faster decisions based on access to real-time data.”

According to Smartrac and SUKU, this solution is one of several contributions from Avery Dennison-owned companies intended to help supply chain members respond to the COVID-19 pandemic. The system is designed to increase manufacturing capacity for essential medical and health-related products.

“As providers around the world are working to quickly expand the availability of PPE and tests for COVID-19, it’s important to build technology that’s easy to adopt,” said Yonathan Lapchik, SUKU’s CEO, in the prepared statement. “Our goal is to offer a simple solution that doesn’t require complex systems integration, providing the right transparency, provenance, supply availability and real-time data needed using NFC tags enabled by the SUKU blockchain.”

Smartrac’s CIRCUS inlays and tags come with [NXP](#)’s NTAG213 chip. They offer 144 bytes of user memory and come with unique ID (UID) mirror functionality, which enables the chip’s serial number to be mirrored as part of its encoded URL. This feature allows every tag to be seen and read as unique from the application perspective, without requiring users to encode inlays with different numbers.

Sensormatic Solutions Helps Retailers Protect Employees, Customers During Pandemic

Johnson Controls has announced that [Sensormatic Solutions](#), its retail solutions portfolio, has expanded its offerings to help

retailers protect employees, customers and assets in brick-and-mortar store operations and warehouses amid the COVID-19 pandemic. These new offerings are intended to help retailers adhere to recommended store-occupancy and social-distancing guidelines during the current situation and in preparation for the reopening and recovery period.

“As retailers face their new reality as a result of COVID-19, we [Sensormatic Solutions] believe that the industry needs to begin to restore consumer confidence, and that starts with helping to ensure the store is a safe environment,” said Bjoern Petersen, Sensormatic Solutions’ president, in a prepared statement. “Never before has there been a greater need for retailers to be equipped with the right technology along with real-time insights to make business critical decisions.” Sensormatic Solutions offers the following solutions:

The ShopperTrak Real-Time Occupancy solution lets retailers understand shopper density within a store for compliance with social-distancing guidelines or ordinances, as well as meet maximum limits. It helps companies optimize cleaning schedules for common facilities or high-touch areas, such as self-checkouts, and provides an understanding of staffing needs for fulfillment of BOPIS or curbside pickup orders.

The new solutions provide thermal and color images of individuals or crowds entering a store. If a camera detects elevated temperatures above defined thresholds, a notification will be sent to store or warehouse managers in order to help maintain proper health and safety measures.

Sensormatic provides CoronaGuard partition and containment solutions in areas requiring person-on-person interaction, such as point-of-sale, pharmacy counters and customer service windows, in collaboration with Polymershapes. The lightweight, see-through and impact-resistant acrylic sheets and sneeze-guard systems form a barrier to help protect employees and

customers.

The company leverages consumer mobility data to help retailers plan store reopening and recovery strategies, in partnership with Unacast and complementary to ShopperTrak's in-store Market Intelligence traffic benchmarking. Unacast's opt-in, location-based data provides insights into when and where retail will recover, by understanding consumer mobility patterns and people's comfort with public spaces. A Social Distancing Scoreboard layers statistics related to new reported cases with changes in mobility and non-essential store visits, providing daily community grades to help retailers evaluate reopening individual store locations across their enterprise.

Pod Group, Expeto Form Partnership to Foster Global IoT Connectivity

[Pod Group](#), a provider of platforms, software and connectivity services for the Internet of Things (IoT) and connected enterprises, has announced a strategic partnership with [Expeto](#), a platform provider of disruptive cloud and edge IoT connectivity technologies. The joint solution enables Pod Group to offer integration of industrial-grade public and private LTE/5G networks to customers' existing enterprise IT network, offering the agility, speed and security required to launch IoT applications globally as extensions of their existing networks.

The agreement allows Pod Group to offer large, connected enterprises, such as those with smart manufacturing facilities, the ability to control every aspect of their network, combined with the scalability of global wireless connectivity and data path control. The solution puts network control inside the enterprise network, in the cloud for public LTE/5G with global coverage and at the edge for private LTE/5G installations for high speed and low latency. Enterprises can deploy new applications and enact network changes in real

time, using existing security assets and protocols, managed via a single centralized platform.

Pod Group can now offer IoT connectivity in more than 185 countries on 600-plus networks worldwide, including support for private LTE/5G networks. This enables the creation of centrally managed private networks in any geography with seamless roaming between private and public wireless networks, the companies report. The ability to dynamically slice a network in real time and group assets under different packet gateways provides flexibility to set different requirements in terms of speed, quality of service and data path control.

“For globally connected enterprises, especially those with remote sites in the manufacturing, logistics, mining or oil and gas sectors, existing connectivity options such as Wi-Fi or traditional cellular networks do not provide adequate control, security and QoS, especially in mission critical environments,” said Sam Colley, Pod Group’s CEO, in a prepared statement. “Public and Private LTE networks provide a way to benefit from the promise of 5G today, whilst ensuring complete security and control of connected assets. Our partnership with Expeto adds a whole new dimension to our modular connectivity platform, enabling enterprises to build and control their own networks on a global scale.”

“Enterprise customers require secure, fast and affordable IoT solutions to enable meaningful efficiencies and revenue streams,” added Michael Anderson, Expeto’s CEO, in the prepared statement. “With Pod Group’s extensive solutions and customer base coupled with Expeto’s groundbreaking IoT Connectivity platform, we can help enterprise customers enable meaningful IoT outcomes without risks of complex integrations, security vulnerabilities and incremental operating costs associated with existing options.”

Ardian Acquires Embedded IoT Solutions Provider Swissbit

Private investment house [Ardian](#) has signed an agreement to acquire [Swissbit Holding](#), based in Bronschhofen, Switzerland. The company manufactures storage and embedded Internet of Things (IoT) solutions with its own production facilities in Germany. Ardian will acquire a majority stake in Swissbit. Swissbit's existing management team, led by Silvio Muschter, Thomas Luft, Vincenzo Esposito and Matthias Poppel, will reinvest in the company as part of the transaction, and will hold a stake in the company, ensuring continuity in the business's management. The parties have agreed not to disclose financial details of the transaction, which is subject to approval by the antitrust authorities.

Swissbit is an independent European provider of NAND flash-based storage and embedded IoT solutions for niche applications in a range of end markets. The company manufactures storage media such as SD and microSD cards, SSD hard drives, and USB memory modules for mission-critical applications. The products are manufactured exclusively at Swissbit's production facility in Berlin. Such solutions are used for industrial-automation applications and network-communication technologies, as well as in the security sector and with medical technology. Swissbit's embedded IoT storage solutions are suitable for use in the fiscal and security segments, while its storage solutions can be customized for specialized storage and computing applications.

Swissbit was created through a management buyout from the Siemens Memory division in 2001. The company currently has more than 700 customers, including industrial, medical and technology companies. "The main factors for our investment in the company were Swissbit's convincing and promising business model combined with an excellent management team with many years of industry experience and strong technological expertise," said Dirk Wittneben, Ardian's managing director and head of expansion in Germany, in a prepared statement. "We look forward to working in partnership with the management and

supporting the company as it continues down its path of growth towards a successful future.”

“The digitization and networking of devices in the Internet of Things drives the demand for secure, high-quality storage products from our memory division and the security solutions from our embedded IoT division,” added Silvio Muschter, Swissbit’s CEO, in the prepared statement. “Above all, data is the most valuable asset. At Swissbit, we see it as our central task to reliably store and protect this data. For this reason, we have systematically created a new, state-of-the-art electronics production facility in Berlin, set up the Embedded IoT business unit and successfully developed innovative hardware-based security products in recent years. With Ardian, we have found a financially strong and globally connected partner for our further planned growth in new markets.”

TSC Printronix Auto ID, SOTI Team Up for Printer Management

[TSC Printronix Auto ID](#), which comprises two barcode printer brands, has announced a partnership with [SOTI](#), a mobile and IoT management solutions provider. TSC Printronix Auto ID is a thermal barcode printer manufacturer, and the new deal will provide businesses with access to a range of devices compatible with the SOTI Connect solution. Under the terms of the arrangement, TSC Printronix Auto ID is authorized to extend this solution through its distribution network.

“As an industry leader in thermal print technology, we are committed to bringing the best technology and tools our customers need to keep their businesses operating efficiently,” said Victoria Grobushkina, TSC’s sales director for EMEA, in a prepared statement, adding that SOTI Connect enables TSC Printronix Auto ID users to manage and maintain a fleet of barcode printers from a central dashboard, thereby boosting visibility, while lowering the cost and complexity of managing IoT devices.

Since the initial product integration was announced last autumn, the partnership has been expanded to the companies' joint channel and customer community. The partnership enables TSC Printronix Auto ID and SOTI to provide remote printer management for a suite of business-critical devices, including desktop, industrial and RFID barcode printers, as well as heavy-duty print engines; mobile printers are slated to be added to the SOTI Connect-compatible lineup later this year.

SOTI Connect was created as an IoT solution for the retail, manufacturing, transport, logistics and healthcare sectors. It provides lifecycle management of all IoT devices, including printers, and empowers organizations to accelerate deployment of their IoT initiatives. "SOTI Connect complements our growing line of innovative solutions designed to save time, reduce costs, and improve accuracy in fast-paced enterprise environments," Grobushkina said in the prepared statement.

A free 30-day trial is available to customers looking to evaluate the solution before committing to a full license. SOTI Connect can be purchased through established TSC Printronix Auto ID distribution channel partners.

STMicroelectronics Joins Zhaga Consortium for NFC Technology

[STMicroelectronics](#) has announced that it has become an associate member of the [Zhaga Consortium](#), which is focused on advancing the deployment of Near Field Communication (NFC) technology in the industrial lighting market. The Zhaga Consortium is a global industry organization formed to standardize interfaces of LED luminaires.

ST's membership in the Zhaga Consortium is intended to facilitate the integration of NFC in lighting products and accelerate the emergence of new standards, the company reports. One benefit of NFC technology is its ability to improve flexibility and efficiency of LED-driver manufacturing lines.

“With the Zhaga Consortium, the lighting industry is paving the way towards harmonized and interoperable usage of NFC technology, driving new opportunities to enhance lighting-equipment connectivity,” said Sylvain Fidelis, ST’s head of marketing and application for NFC tags and readers, in a prepared statement. “Our solid know-how in connectivity and lighting technologies is key to building the bridge between NFC standards and lighting-industry requirements.”

“We welcome ST as a solid partner with strong NFC and lighting expertise and look forward to defining best-in-class standards together for connectivity in industrial lighting,” added Dee Denteneer, the Consortium’s secretary general, in the prepared statement. ST offers a range of solutions for the lighting industry, including LED driver chips and a portfolio of NFC tags, such as the ST25DV series_for NFC Forum type-5 dynamic tags.

Cartesiam Updates Its AI Software for ST Microcontroller Development Boards

[Cartesiam](#), which creates artificial intelligence (AI) software for embedded systems, has announced a new release of its NanoEdge AI Studio optimized for [STMicroelectronics](#)’ STM32 microcontroller development boards. The NanoEdge AI Studio development environment removes traditional AI barriers, the companies report, and is designed for businesses that lack expert resources in machine learning. This new release allows embedded developers to create AI-based solutions using STM32 microcontrollers, while enabling live data logging in NanoEdge AI Studio directly through the STM32 serial/USB port and an enhanced version of Cartesiam’s automatic data-compliance and quality-verification tool.

NanoEdge AI Studio is a software tool that allows system designers using Arm-based low-power microcontrollers to integrate machine-learning algorithms directly into a range of applications, including connected devices, household

appliances and industrial machines. The software enables on-device learning of a nominal behavior and is capable of detecting any variation of this behavior, even in a complex and noisy environment. Developers now have the option of directly selecting ST's Nucleo-F401RE or Nucleo-L432KC development boards as hardware platforms, which allows the download of a custom machine-learning library that can be run on the selected hardware platform.

"Customers developing with ST's microcontrollers can benefit from Cartesiam's solutions in the same ecosystem of boards and development environment they are already used to," said Miguel Castro, ST's AI solutions manager, in a prepared statement. "NanoEdge AI Studio complements our AI offer by adding simple machine-learning library generation to our Neural Networks development environment, STM32Cube.AI. ST development boards are the perfect platforms for developing the next generation of smart products on low-power and cost-effective microcontrollers."

"Since its launch in February, NanoEdge AI Studio has been used by customers of all sizes and on all continents to develop predictive maintenance, fraud detection, and smart-security solutions," added Joel Rubino, Cartesiam's CEO, in the prepared statement. "This new release of NanoEdge AI Studio custom-made for specific STM32 boards, will give our customers a solid hardware and software combo to rely on, when developing and testing new companion devices as well as built-in sub-systems designed for predictive maintenance."

Siemens Mobility, Ondas Networks Partner on Railroad IoT System

[Siemens Mobility](#), a provider of sustainable and secure transport solutions, has entered into an exclusive partnership with [Ondas Networks](#), a developer of private licensed wireless data networks for mission-critical industrial markets, to bring a [Siemens-branded portfolio of wireless radio](#)

[communication systems](#) to the North American rail market. [Ondas's MC-IoT architecture](#) is designed to provide railroads with wireless networks that are built specifically for mission-critical use, the companies report.

The portfolio will feature new radios interoperable with Siemens Mobility's installed base of Advanced Train Control System (ATCS) radios. The new radios will be MC-IoT-capable, enabling railroads to embrace future advanced train control, signaling, crossing and monitoring applications. The new ATCS radios for both base station and wayside are expected to be available within the next year.

The North American private rail network consists of 140,000 miles of track, 25,000 locomotives, 1.6 million railcars and 200,000 highway crossings. A significant portion of the communications infrastructure is more than 20 years old, the companies explain, and requires an upgrade to support the technology required for automated railroads. "These new ATCS radios will provide the railroads with a seamless migration path to build up this intelligent infrastructure," said Marc Buncher, the CEO of Siemens Mobility for North America, in a prepared statement. "The full complement of radio products that we can offer, through our partnership with Ondas, will enable our customers to further leverage the extensive investments that they have already made in the RF spectrum and in their communications infrastructure."

Using the frequency-agnostic, software-defined radio architecture from Ondas, these products will enable a capacity increase utilizing the railroad's existing wireless infrastructure and dedicated FCC-licensed radio frequencies, as well as the flexibility to adapt to future changes in RF spectrum availability. Siemens Mobility and Ondas will work closely with international standards organizations and North American rail representatives to promote a public open standard intended to benefit railroads, suppliers and application providers.

“Siemens Mobility is an ideal partner to accelerate the adoption of our wireless technology in the North American Railroad market,” stated Eric Brock, Ondas Networks’ CEO, in the prepared statement. “Siemens Mobility is a world-renowned leader and innovator in transportation with the reach and support systems to truly drive our technology to wide scale acceptance. Our technology has enormous potential in the North American Railroad market and we’re very excited about the future we see with this partnership.”