CONNECTING THE ENTERPRISE
THROUGH SERIALIZATION

by

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When manufacturers, suppliers, and other participating supply chain stakeholders thoroughly analyze the life of a product, numerous opportunities exist for connecting all enterprise units if that product is "serialized." Namely, this is the application of serial numbers onto the packages of a product in the form of a barcode, as 2D or data matrix, and/or a human readable alphanumeric code. Application is typically done at the packaging line, where each level of packaging (carton, case and pallet) is serialized and linked, or aggregated, so that all package levels are associated.

Serialization can commence in the manufacturing process through use of manufacturing execution software. Serialized raw materials can be aggregated into a batch number, which is then fed through a company's ERP system and to the packaging line. As products are packaged in the primary (carton), secondary (case) and tertiary (pallet), all of the data in the batch file can be linked to all packaging levels. As the product is stored in the company's warehouse, entries into the warehouse management system, or WMS, can be linked to individual package serial numbers, providing for continuous location identification of every package in that batch. As the product is shipped through the supply chain, each and every change in custody can be efficiently updated in the serialization database, which is typically hosted in a global cloud network. Packages can be authenticated at any point in the supply chain. Consumers can also authenticate their purchases using a mobile device with access to a web portal.

Once the package is in the hands of the consumer, a great deal of valuable information exchange can take place. The consumer is able to use a serial number to capture important information about the product, the brand owner, and the chain of custody throughout the supply chain. Discount e-coupons and other promotional product information can be accessed, by inputting the serial number into a mobile device app. To access this promotional information, a consumer may be asked to provide customer profile information, as well as valuable demographics such as time and place of purchase.

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This information can be provided to the brand owner's marketing department to get timely and accurate consumer data that now much be purchased from outside market research companies. This exchange of data provides a unique opportunity for the brand owner to establish a valuable direct relationship with the consumer, thus providing for future communication of important promotional information.

If the product is from the life sciences, food or beverage industry, and a recall is necessary, this recall can be managed with much more precision if the reasons for the recall are tied to specific serial numbers in a production lot, and not the entire lot. As product is returned, it can be identified and accounted for much more accurately, and if consumers have registered their products upon receipt using the serial number, recall information can be transmitted directly to these consumers.

In the case of a product that has a finite life and can be returned for credit—certain pharmaceutical products, for example—the price at which the product was sold, and sometimes the date of the sale, can be tied to the serial number. This enables the brand owner to apply credits that are tied to the selling price and not a contracted return price that may be much higher than is appropriate.

Authentication by consumers, any supply chain partner, or the brand owner's security inspectors can authenticate the product by inconspicuously scanning the barcode of a product on the shelf. This scan can also identify incidents of gray market diversion if, for example, the product is on a shelf in Asia and should be on a shelf in Florida.

Advances in technology have certainly increased the efficiencies of today's businesses, but too many organizational units have become increasingly isolated in silos, limiting opportunities for cross-collaboration and timely information from customers, suppliers and distribution partners. Serialization can be a highly effective solution for facilitating the transfer of timely and comprehensive information throughout the many functional units of an enterprise, its market, and external partners, most importantly, its customers.

About COVECTRA

Headquartered in Westborough, Massachusetts, COVECTRA offers multi-layered brand integrity and protection solutions, including its serialization-based AuthentiTrack technology, which includes serial number generation, event repository and event repository management; packaging line serialization, and front-end software applications such as ControlTrack to utilize serial numbers for a variety of business benefits, including counterfeit detection, adherence, and returns verification. By combining covert and overt security features printed on products and packaging materials COVECTRA provides a complete portfolio of products and services to protect and enhance a product brand. Visit www.covectra.com for more information.

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