Micro Database Less Encapsulation (MDLE)

Micro Database Less Encapsulation (MDLE) is the most effective audit tool for detecting the proliferation of superfluous, falsified, or adulterated medicine into the supply chain, detect for lost/stolen/diverted goods, and is track & trace ready to meet worldwide regulation.

Counterfeiting will not go away on its own, the criminals are here to stay. This will have an impact on your Brand and damage customer trust and Brand reputation.

More counterfeit goods are being sold online than ever before, and at a growing rate, because this is extremely lucrative for Brand abusers.

The global trade in counterfeit goods is booming, and it is becoming more sophisticated. No longer confined to fashion items such as shoes and

Micro Database Less Encapsulation (MDLE)

handbags, the counterfeit products include vehicle parts, medicines and pesticides, products that carry serious health and safety implications.

Impact Brand Protection utilizes cutting-edge technology which allows us to encrypt tremendous amounts of data onto the most popular tags on the market today — 2D barcodes, RFID tags, etc. This technology is so advanced that we can tag every single item with its own unique ID. The individuality of the unique IDs, coupled with the great amount of data we can encrypt, provides a true breakthrough in multiple aspects of your business.

Since each item has its own uncrackable digital "signature," we enable law enforcement, customs officials and consumers to verify product authenticity by scanning it with a camera phone. When a counterfeit product is identified, the system immediately alerts the brand owner's legal department, anti-counterfeit personnel, or other selected delegates. And by involving consumers in the fight against counterfeiting, we arm brand owners with what we call, "A Million Eyes Inspector."

Beyond anti-counterfeiting, these unique ID's inherently provide outstanding tracking capability, per item and per pallet — it's far beyond anything on the market today. Further, that same scan from the camera phone could unlock item-specific targeted marketing (coupons, instant win, sweepstakes, etc.). And since the encryption can hold so much information, the entire database is held within each barcode or RFID tag, eliminating the time and hardware needed for a database. IBP provides a one-stop solution for brand owners' operations, marketing, and security. We save brands

time. We save them money. And we simplify multiple facets of your business.

Industry and Product Applications

Pharmaceuticals, Secure Access Cards, Banking and Financial , Tax Stamps, Fashion and, Accessories , Luxury Goods, Electronics and Components, Automotive and Aviation, Food and Beverage , Insurance Certificates, Alcohol and Tobacco, Medical Health Cards, Driving Licences and ID Cards, Credit Cards, Passports and many more…….

2D TECHNOLOGY

What 2D Offers

Counterfeit Protection, Grey Market, Track & Trace Ready, Brand Loyalty, Document Security, ID/Biometric Card Security and Credit Card Security.

Industry and Product Applications

Pharmaceuticals, Secure Access Cards, Banking and Financial , Tax Stamps, Fashion and, Accessories , Luxury Goods, Electronics and Components, Automotive and Aviation, Food and Beverage , Insurance Certificates, Alcohol and Tobacco, Medical Health Cards, Driving Licences and ID Cards, Credit Cards, Passports and many more…….

Pharmaceuticals:

According to the World Health Organization (WHO), as much as 70% of prescription drugs are counterfeit and have been responsible for thousands of deaths in some of the world's most impoverished nations. The Centre for Medicine in the Public Interest (CMPI) estimates the counterfeit drug

Micro Database Less Encapsulation (MDLE)

industry at over $75 billion and expects it to grow 20% annually in the coming years. According to CNBC, counterfeit pharmaceuticals are undoubtedly a billion-dollar industry, though some estimate it to be much larger. IBP's solution goes far beyond anti-counterfeiting by complying with the GS1 regulations as well as ePedigree and serialization initiatives. Every case, box, bottle, blister, or pill itself may be protected and then traced all the way to the consumer. If a consumer gets a hold of a product without an encrypted 2D barcode, they will rightly assume it to be a counterfeit. Once the consumer scans the product, instantly they will be able to verify it's authentication. They will see intended destination for product, expiration date, name of medicine, and other relevant information the pharma company would like to provide. This way, medicine packaging cannot be altered to show falsified information or labelling. Medicine cannot be repackaged if every pill has its own unique barcode on it guaranteeing its authenticity. With IBP's technology, consumers can be sure of the legitimacy of their medicine.

Brand Protection and Counterfeiting Protection

IBP offers the most powerful and secure brand protection and anti-counterfeiting technology in the world. The stronger-than-military-grade encryption is more secure than the anti-counterfeit technology currently used on passports, precious gems, pharmaceuticals, electronics, and more. It is the strongest offense money can buy and cannot be cracked. With the global counterfeiting trade estimated to reach $1.7 trillion by 2015, this technology could save brand owners millions, even billions, of dollars in the prevention of revenues lost to counterfeiting and grey market goods.

Micro Database Less Encapsulation (MDLE)

The technology we provide is different — a new weapon against counterfeiting. Here's how… First, it's the world's only symmetric, polymorphic, non-mathematical encryption — it cannot be cracked. Second, we arm brand owners with a tool enabling you to tag each item produced with a unique identifier — an encrypted 2D barcode. Third, as a result of these two powerful attributes, we developed what is referred to as Micro Database Less Encapsulation (MDLE), which eliminates the need for a product database, so there's nothing to hack. Fourth, we've incorporated consumers into the verification process — products can be authenticated with a simple scan of a camera phone. This gives brand owners direct connection to consumers and unleashes the power of "A Million Eyes Inspector," yet another potent layer of security. This also means the technology provides entire supply chain validation — brand owners can enlist supply chain partners to assist with brand protection. In essence, the cutting-edge technology offered by IBP provides a dynamic unequalled security system for brand owners everywhere.

And it goes even further… When an item is scanned, it is immediately identified as authentic, counterfeit, or diverted. Further, whether scanned by a supply chain partner or a consumer, your system is instantly updated with real-time analytics (GPS location, time of scan, and other valuable data). Once a counterfeit, diverted, lost or stolen item is identified, the system alerts the brand owner who can then properly activate their investigators, inform law enforcement, and even reward consumers for assisting in the fight against counterfeiting. Further, we do all of this without the need for any special equipment and with little to no modification to the IT infrastructure, thus creating a low barrier to entry for virtually any industry.

Micro Database Less Encapsulation (MDLE)

Track & Trace

With the technology Impact Brand Protection provides, manufacturers can tag items the moment they are created with a unique encrypted ID in the form of a 2D barcode. This uniqueness, so important for marketing and anti-counterfeiting, also creates a manufacturer's dream for tracking and tracing. Items can be tagged at individual, carton, pallet and container level, creating a system that can literally follow an individual item from the point of manufacture, through the supply chain, and into the consumer's hands.

But it doesn't stop there. Each time a product is scanned, it registers information such as date, time, geolocation and other data in a log file on the company's server. The company can collect information about which products consumers are attracted to, and strategically market those products in the regions where they are most successful. And by allowing for track and trace to the end user, brand owners can detect grey market merchandise, stolen goods, and counterfeit products, and combat these quickly and more efficiently.

Best of all, this technology eliminates the need for a product database. The product's entire information is contained within the same 2D barcode, saving brand owners money and resources. Put simply, this state-of-the-art technology provided by IBP offers brand owners full track-and-trace, superior anti-counterfeiting, and marketing solutions all on the same 2D barcode.

Marketing Acceleration

Micro Database Less Encapsulation (MDLE)

Impact Brand Protection delivers a cutting-edge marketing tool to brands owners, allowing you to connect with your consumers in radical new ways. Each coupon or incentive has its own unique identifier, giving brand owners the power to track if, when, and where a coupon is used, as well as reward consumers who share promotions on their favourite social networking sites.

But that's just the beginning... Once your consumer shares that coupon, each person who accesses it is also given his/her own unique encrypted coupon. Brands can track when and where that coupon is used and shared. The system continues to create unique encrypted coupons for every subsequent person who accesses your original consumer's coupons... or his/her friends' coupons... or friends' friends' coupons... and so on. And since it can all be tracked back to your original consumer, brands have the real potential to reward the consumers who bring you business.

The best part is, the technology is secure and database-free. Unlike other encryption methods and/or pseudorandom number generators, the non-mathematical encryption method we provide cannot be cracked by any known methods. And since we're capable of encrypting vast amounts of information into a 2D barcode, we eliminate the need for a product database.

This state-of-the-art technology saves brand owners time and money in hardware and other resources while simultaneously bursting opening the door to marketing innovation that could revolutionize the way brand owners connect with their consumers. The marketing possibilities are endless.

Coupons on 10% of products

Sweepstakes

Rewards for sharing

Instant win

Contests

Games

Hidden Discounts

Scavenger Hunts

Date and place of creation

Born on date

Product history

Information on the guy who crafted your beer

Luxury and Goods

A diamond certificate is issued following an unbiased and professional examination to authenticate a diamond's attributes. The carat weight, colour, and clarity are all validated – together with the diamond's exact measurements. Cut grades are also included for Round Brilliant cuts. Certificates are essential in determining or testifying a diamond's value.

IBP can embed the entire certificate – fully encrypted – onto the girdle of the diamond itself.

Electronic/Tech

Counterfeit electronic parts entering the manufacturing supply chain costs the U.S. government and its contractors billions each year.

"One report notes the automotive industry alone lost $3 billion in sales, while another shows the semiconductor industry take a $75 billion annual hit."

IBP can embed the entire certificate – fully encrypted – onto electronic part itself.

Documentation

The business of forged identity cards is booming. The use of fake IDs is spreading around the world. With today's software and printers, good fakes are easier to make. Counterfeiters no longer need to produce one document at a time; the latest gear allows for mass-production.

IBP has the technology to stop counterfeit IDs passing as authentic.

IBP can embed the entire identification – fully encrypted – onto ID card itself.

Technology

Impact Brand Protection is a provider of the only symmetrical, polymorphic non-mathematical encryption method in the world. Its key strength (minimum 1 million bit key size) is truly chaotic and based on an innovative, patent pending technology called PHR Pure Human Randomization. PHR replaces the structuring and use of a pseudo-random calculative hash function. PHR cannot be cracked or brute forced by any known method(s).

Micro Database Less Encapsulation (MDLE)

Other encryption algorithms have a bit overhead of between 300-700% when encrypting small amounts of information. PHR on the other hand uses an unparalleled, non-dictionary compression ratio operational technique which has a bit overhead of 5-7%. Because of this, we are capable of encrypting entire columns of a database (up to 500 characters) into one 2D barcode. A process referred to as MDLE – Micro Database Less Encapsulation.

The Encryption Process:

Step 1: We use a state of the art compression algorithm to optimize the original content for efficient performance of the encryption engine.

Step 2: Salting the original content with white noise and PHR (Pure Human Randomness).

Step 3: The encryption engine creates both shuffle and move commands using a unique modifier, which is core based on the PHR and white noise engine, and performs the first layer of modification to the original content.

Step 4: XOR function on the PHR output results in a Random Oriented Enhanced Encryption (ROEE). When combined with a time set of instructions and a computational temporary set of instructions, the result is a real one time pad (OTP). This appears as a polymorphic function where the output (encrypted content) is variable.

Step 5: Reconstructing a file level on a multiple N-dimension code manipulation with zero use of a calculative algorithm, also referred to as a

Micro Database Less Encapsulation (MDLE)

secondary phase of salting, results in superior protection against Rainbow Crack, Dictionary Attack, Cryptanalysis, etc.