#### **OBJECT PERMANENCE**

AUTHENTICATION AND OBJECT IDENTIFICATION,

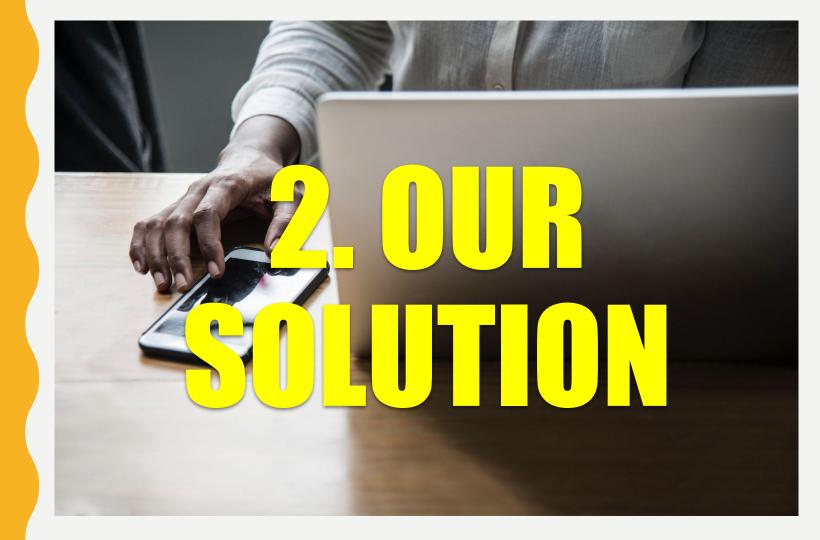
USING ENCRYPTION
AND
BLOCKCHAIN TECHNOLOGY





### Problems of Object Authentication

- With object identification, the goal is to guarantee object permanence of items that may not immediately or easily be identified from other similar objects.
- An example might be to identify authentic pharmaceuticals, fashion bags, physical copy of important documents. How does one tell real ones from fake ones?
- Many of these functions have been previously undertaken by written or printed tags, magnetic strips, special ink. Only to be defeated by the next generation of printers and clever tricks.



### **Proper Tagging**

We developed a solution using smart computerized decals

- Decals are inserted into an item or attached to it.
- Tags are encrypted and therefore can't be copied by any means. They, mathematically, guarantee authenticity
- Tags can be read and authenticated by any smartphone with internet. Scanning is real-time and all data is immediate and extensive. Instantly check and log assets.
- Tamper proof tags will detect removal or tampering with tag or item itself.
- Tags are inexpensive and do not require batteries

#### **Additional Benefits**

There are a number of amazing side benefits

- High speed tag encoding solutions are available.
- Tags are washable.
- Provides for direct user connection. Easy interaction with the end user, using up to date information, in their own language.
- Facilitates a long term relationship/upsell/reorders with the end-user through web push notifications.
- No ink to rub off or be damaged

# Companies using similar technologies

Apple	Ć		
Google	G		
Samsung	SAMSUNG		
Nike	NIKE		
Visa	VISA		
Mastercard	mastercard.		

### The Killer App

The counterfeit market is, by most measures, becoming a trillion dollar industry and it's everywhere. Pharmaceuticals, clothing, consumer tech and even aircraft parts. It's not so much that it's eating into brands profits which is how we often think of it. It's that it's also now presenting a danger to life. These tags aren't going to solve this problem – they aren't some silver bullet. But they can protect genuine brands and genuine products and provide the consumer and businesses with a level of confidence that what they have in their hand is what they expect it to be. All while maximizing brand recognition and reverence - what most marketing efforts attempt but fail at.



## Typical Tagging Mistakes - Label Tags

It is not uncommon to use tagging to identify an item. Every item in most stores comes with a UPC or QR code, many also contain some specialized printed or stamped tags

- Most of these can be defeated by using a printer or a cheap custom printing shop
- When authentication can't be performed by end-user the usability of the tag is limited
- Tags can rub off or be damaged by water

#### Typical Tagging Mistakes - Electronic

In recent years several solutions have popped up which use various Bluetooth, RFID and NFC tags (and even combination of) which are encoded with a verification code.

- These can be copied by using a manufacturer willing to make hardware copies or manufacture to weakened standards
- Most require special devices to read and/or write, so for many the authentication can't be performed by end-user
- They can cost up to \$15 per tag, some require batteries.

#### **Data Security**

- Proper encryption has always been about securing the encryption keys.
- Unfortunately most common methods today revolve around a single secure key or a checksum, all easily defeated using computing power
- Best encryption today uses two-key algorithms which allow for proper key management. So do our tags.
- Blockchain technology and SSL uses two-key algorithms at it's core to keep transactions and internet secure



#### **Contact Us**

Please visit us, ITBS LLC, at www.ITBSLLC.com

See about our wide expertise and client base, and our experience with blockchain and security sector.

There is a form for contacting us on the website. We would love to hear from you.