BLOCKCHAIN & BIG DATA:

THE FUTURE OF BRAND PROTECTION OR HYPE?

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DSS
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THE ISSUE

Brand protection strategies & tactics were developed to combat a nuisance level problem- not a $960 billion plague

Counterfeiting was often confined to national borders with small time criminals as perps

IP wasn't out in the open nor were advanced reproduction technologies readily available

Online markets didn't exist to create a massive addressable market

*OECD/EUIPO, (2016). Trade in Counterfeit and Pirated Goods: Mapping the Economic Impact, OECD Publishing, Paris

ADAPTING BRAND PROTECTION

With new threats & growth in counterfeiting brand protection must evolve

New tools are necessary with technology based solutions providing the most obvious path

Less control of IP & explosive growth of online markets mean passive BP tactics create tremendous exposure

Solutions must fit today's supply chain where multiple parties are involved from manufacturing to distribution

LEVERAGING DATA

Connectivity has democratized knowledge so actions previously restricted to internal stakeholders can now be shared.
i.e: Product Authentication

With always on connectivity business systems have moved to data driven models because so much information is now captured.
aka: Big Data

Since data is now the main asset the open framework which can be supported creates tremendous new possibilities
eg: Systems integrated with partners

REACTIVE TO PREDICTIVE

REACTIVE MODEL

Enforcement

- Investigation
- Interdiction
- Internally Focused

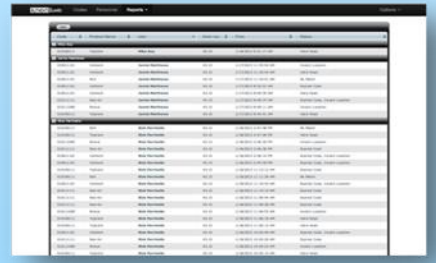
Issues

- Not Scalable
- International Constraints
- Risks Customer Trust
- Costly

A DATA CENTRIC APPROACH

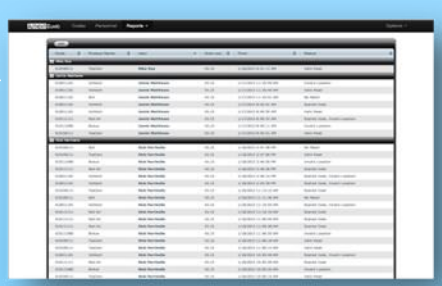
SHIFT FROM REACTIVE TO PREDICTIVE REVOLVES AROUND THE USE OF DATA TO VALIDATE PRODUCT AUTHENTICITY.

In-field Authentication



Aggregated Data

Product is authenticated based on algorithmic risk analysis engine with both data from marking, associated data, & historical data



Data Capture

Archiving of data from authentication activities is saved which strengthens the overall analysis so accuracy improves over time

ALGORITHMIC RISK ANALYSIS

Existing BP technologies & tactics revolve around validating a mark or packaging

This presents problems because if its printed, it can be counterfeited

Algorithmic analysis offers a much stronger approach because mark/packaging is only one single factor

Additional factors can include intended destination, product, date from manufacture, authorized outlet, propensity to counterfeit, etc.

Risk analysis will look at these factors and others to generate a score which will determine authenticity

Approach is more difficult to counterfeit because it isn't any one factor but a wide range of data used to make the determination

Added benefit is the use of existing bar codes or other marking

BLOCKCHAIN

What is blockchain?

- System of distributed ledgers used to aggregate data across an open network

- Strong encryption & data replication mitigates many threats from hacking which might otherwise exist

Blockchain in supply chain applications is built on two themes

- **Data:** The idea that currently lots of data is being generated but not captured or used

- **Openness:** Unlike a proprietary system, a blockchain deployment would be built upon the idea of openness for multiple parties

BLOCKCHAIN CHALLENGES

Physical to Digital

- Blockchain was created for a purely digital good

- Challenges exist in transporting data from the physical world into a virtual one

How much process disruption is the supply chain ecosystem willing to tolerate?

- Most companies have limited control over their supply chain and lack the institutional will to dictate change

- Can incentive be created to facilitate process change?

BLOCKCHAIN IN BRAND PROTECTION

Data Archiving Mechanism

- Blockchain in itself has no value in brand protection, it's merely a network which connects related companies

- Data is at the center of everything whether on a blockchain network or not

Utilizing The Data

- Data can be accessed and used by supply chain personnel, law enforcement, & consumers

- Used by brand to provide authentication, help in takedowns, & understand developments in the supply chain

FACTORS TO CONSIDER

1. DATA IS EVERYTHING

Even if not being used right now, collecting & storing data will pay dividends in the future. Find ways to implement & collect data in an iterative process, trying to create from scratch is doomed to failure.

2. MOVE TOWARD PREDICTIVE

Any new BP initiative should be moving towards a predictive model. Passive is ineffective & a waste of resources.

3. BLOCKCHAIN?

Shows promise but challenges will delay adoption. Data is still key whether it's gathered in a blockchain network or not.

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