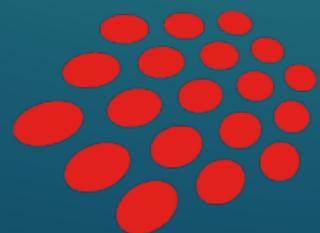


DATADOT TECHNOLOGY LTD

6 Ways to Combat the Problem of Counterfeit Drugs



DataTraceid
AUTHENTICATION SOLUTIONS





INTRODUCTION



STEVE DELEPINE

VP BUSINESS DEVELOPMENT

Steve Delepine is an international brand protection professional with over 20 years of experience in sales, marketing, operations and project management. Proven track record in growing sales, managing costs, increasing profitability and building brand awareness.



TEMOGEN HIELD

CEO DATADOT TECHNOLOGY GROUP

Temogen Hield is an innovative strategic thinker with a natural change and future focus. He is passionate about customer engagement and trust, and building lasting relationships that are mutually beneficial and uses a range of executive capabilities to lead and motivate teams to achieve by taking responsibility for results. He is a strong integrator with excellent stakeholder management skills.

6 Ways to Combat the Problem of Counterfeit Drugs

- **1. INTRODUCTION**
A summary of webinar topic and content
- **2. WHO'S AT RISK?**
Why Brand owners should care
- **3. THE 6 ESSENTIAL BRAND PROTECTION ELEMENTS**
How to enhance and protect your brand
- **4. PRODUCT AUTHENTICATION**
How it can help Brand owners protect their products & reputation
- **5. DATATRACE OVERVIEW**
- **6. Q&A SESSION**
Free time to answer questions and provide further information

6 Ways to Combat the Problem of Counterfeit Drugs

Counterfeit drugs are a \$200 billion business in the US, with an estimated one in every ten pharmaceutical products sold around the world being a fake. As well as the obvious financial toll counterfeit drugs place on the pharmaceutical industry, they also pose a very real risk to consumer health.

Objectives:

- This webinar will detail the benefits of combining **a diverse range of product authentication solutions** that can be easily modified to **stay a step ahead of pharmaceutical counterfeiters**.
- Our featured speakers will discuss the **pros and cons of single source authentication vs. multi-factor authentication**
- Participants will learn about the **6 essential brand protection elements to enhance and protect their pharmaceutical brand**
- In addition, the speakers will discuss **effective ways to engage customers and build brand loyalty** through **product authentication**

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WHO'S AT RISK?

Why brand owners should care

COUNTERFEIT PHARMA IS A REAL THREAT TO HUMAN LIFE

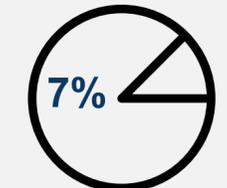
Global Brands

\$1.77 Trillion

Global impact of counterfeit goods in 2015, up from \$250 billion in 2009 (OECD Report)



The Global Counterfeit market is the size of Italy's GDP, the 9th largest economy (OECD Report)



Of all global trade is estimated to be in counterfeit goods (World Customs Organization)

5.4 million

Estimated number of legitimate global jobs at risk from counterfeit goods (OECD Report)



Healthcare Industry & Shareholders



10% of medicines worldwide are fake. 60% contain no active ingredients, 16% incorrect ingredients (World Health Organization WHO)



\$200 Billion of fake pharmaceutical drugs are sold annually (Sophic Capital)



13,000 illegal online pharmacy websites identified and shut down in just 1 year (U.S. FDA, 2013)



90% of drugs purchased online come from a different country than claimed by the website (PWC)



€10.2 Billion EU pharmaceutical sector loses per year, or about 4.4% of total sales, to counterfeit medicine (EU IPO)



Individual Consumers



1 Million deaths occur each year from counterfeit pharmaceuticals containing toxic and ineffective substances (PWC)



450,000 preventable malaria each year are caused by counterfeit pills (IPN)



149 people died in the U.S. from counterfeit blood thinner Heparin in 2008 (US FDA)



4 Million fake tablets confiscated by German authorities in 2015 (German Customs)



Fake Botox found in the United States along with counterfeit versions of Cialis and Viagra (FDA)



Consumers now rank product safety, experience and transparency as key drivers in purchase decisions (Deloitte US Consumer Trends 2016)

KEY POINT: Authenticity and Trust are the new imperatives for brands and provide a key opportunity for companies to differentiate and build brand value through product authentication and consumer engagement

A LOSS OF TRUST = LOSS OF SALES & PROFIT

The threat of counterfeiting is a significant risk for all companies globally and continues to grow in terms of size and probability...



...where the consequences of counterfeiting are often catastrophic and should not be ignored or underestimated

75%

of companies experience at least one major supply chain disruption a year¹

48%

of companies experienced a loss from conducting business overseas in the past 3 years
(2014 Chubb Multinational Risk Survey)

| | |
|--|--|
| | Loss of sales revenue and profit |
| | Loss of consumer trust and loyalty |
| | Brand and reputation damage |
| | Lost market share and growth |
| | Overproduction and supply issues |
| | Product liability claims and legal costs |



| | |
|---------|--|
| \$3.2bn | Average estimated loss in market cap of a Fortune 500 company from reported supply chain breach (World Economic Forum) |
| 72% | Of consumers prioritise product purchases from brands they trust (Nielsen Research) |
| 60% | Of companies reported a loss of 3% or higher loss of value from counterfeit breaches ¹ |
| 54% | Of companies have sales revenues negatively affected by supply chain breaches ¹ |
| 64% | Of companies suffer declines in customer service levels from supply chain disruption ¹ |
| 3-5% | Of revenue is estimated to be lost due to product warranty claims due to counterfeit product substitution ¹ |



KEY POINT: Counterfeit has the potential to rival or exceed a major data breach in terms of the financial and reputational damage it can do to a brand

DEMONSTRATING AUTHENTICITY CAN HELP YOU SELL MORE!

9

Consumer trust in a brand is increasingly playing a bigger influence in the product purchase decision and consumers are placing a higher emphasis on product safety and information to provide consumer assurance

Western consumers concern about product safety is playing a major role in purchase decisions



72% of consumers prioritise product purchases from brands they trust (Nielsen Research)



The latest raids in Operation Pangea (an international police campaign against illegal online pharmacies) involved **100 countries and shut down more than 18,000 online pill-pushers.** (The Economist)



42% of shoppers said they rely on retailers to assume a greater role in managing food safety, up from 25 percent in 2009 (FMI Study)



61% of US Consumers said they are concerned about food safety (Hahn Public Research)

...whilst Chinese consumers have a high level of concern about food safety and a general lack of trust in the food supply chain...



Chinese consumers have a high level of concern in relation to adulterated, counterfeit and incorrectly described food, and therefore a stronger attitude and intention to purchase authentic food



Chinese consumers have a general lack of trust in the Chinese food supply chain, particularly manufacturers and retailers



Demonstrating the authenticity of food has a positive effect on both attitude and intention to purchase

Presentation by Dr Sharron Kuznesof @ 2016 Asia-Pacific International Food Safety Conference



KEY POINT: The increasing incidence of product tampering and counterfeiting has elevated consumer awareness and concern over product safety whereby product security features are now becoming a point of brand quality and differentiation

DSCSA & MULTI-FACTOR AUTHENTICATION COMPATABILITY

(Drug Supply Chain Security Act)

Key Concepts

Regulatory Requirements

Product Identification

Manufacturers and re-packagers to put a unique product identifier on certain prescription drug packages, for example, using a bar code that can be easily read electronically. The EU also requires tamper evidence (also required for OTC Pharma in the USA).

Product Tracking

Manufacturers, wholesaler drug distributors, re-packagers, and many dispensers (primarily pharmacies) in the drug supply chain to provide information about a drug and who handled it each time it is sold in the U.S. market.

Product Verification

Manufacturers, wholesaler drug distributors, re-packagers, and many dispensers (primarily pharmacies) to establish systems and processes to be able to verify the product identifier on certain prescription drug packages.

Detection & Response

Manufacturers, wholesaler drug distributors, re-packagers, and many dispensers (primarily pharmacies) to quarantine and promptly investigate a drug that has been identified as suspect, meaning that it may be counterfeit, unapproved, or potentially dangerous.

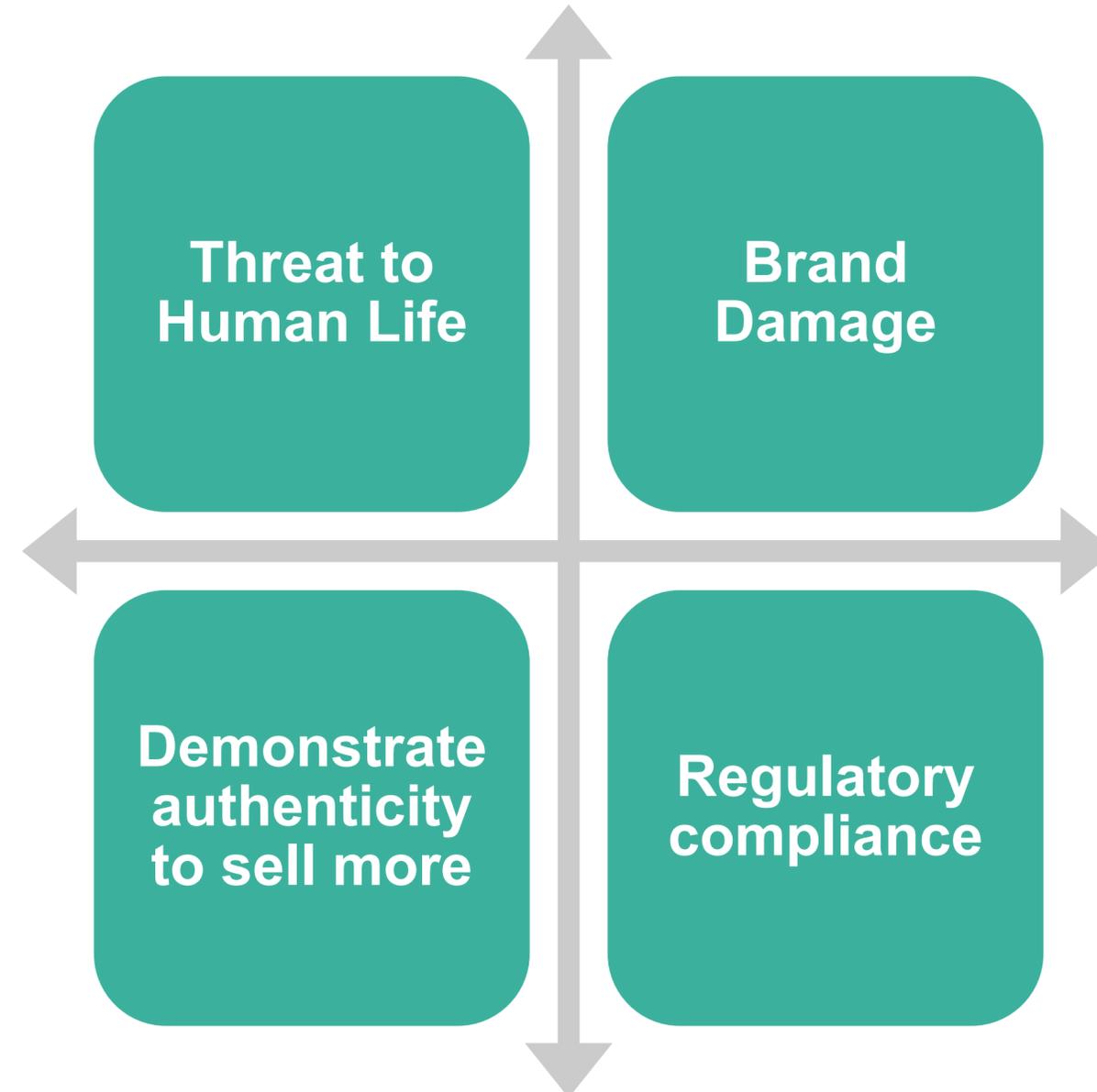
Notification

Manufacturers, wholesaler drug distributors, re-packagers, and many dispensers (primarily pharmacies) to establish systems and processes to notify FDA and other stakeholders if an illegitimate drug is found.

Information Requirement

Wholesale drug distributors to report their licensing status and contact information to FDA. This information will then be made available in a public database.

UNDERSTANDING YOUR DRIVERS WILL BE KEY TO DECIDING WHICH COUNTERMEASURES TO DEPLOY



69% of companies responding to our Counterfeit Counsel survey in 2018 have taken some form of counter-measure to combat counterfeiting

POLL QUESTION 1

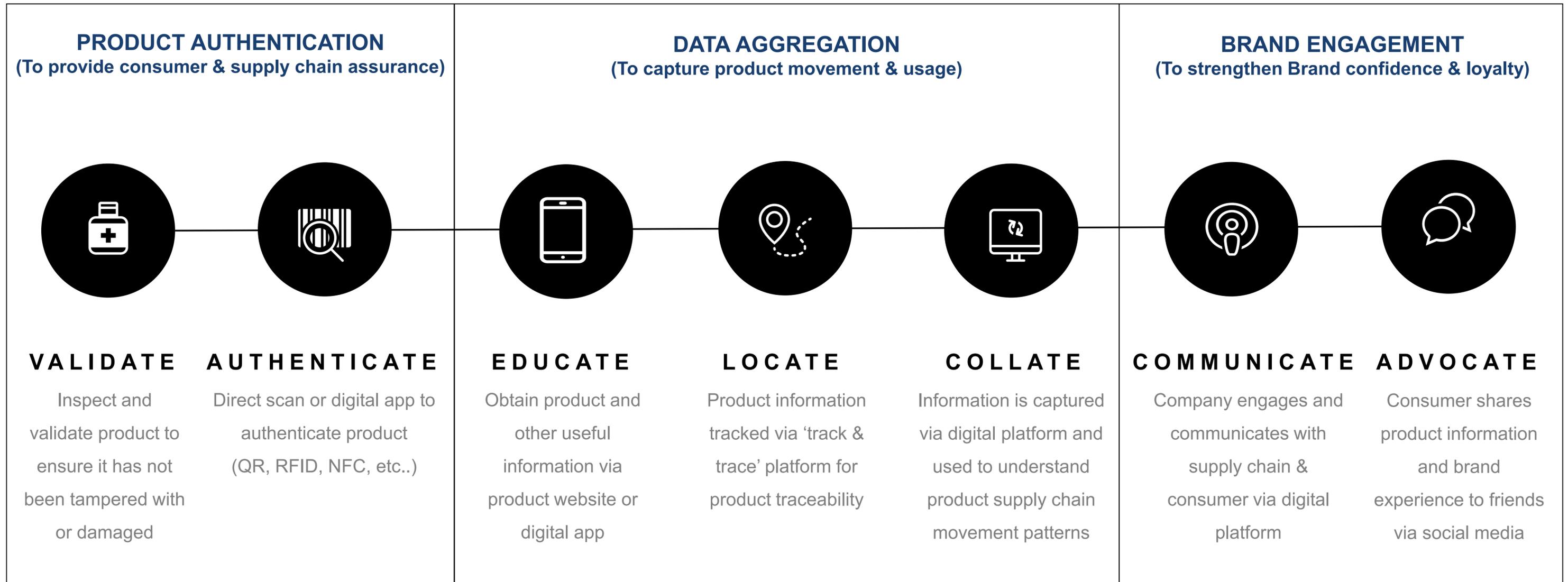
3

THE 6+ ESSENTIAL BRAND PROTECTION ELEMENTS

**How to enhance and protect your brand with an Integrated
Authentication solution**

INTEGRATED AUTHENTICATION ADVANTAGES

The challenges of brand protection can be addressed with an integrated authentication solution
 “Without differentiation you have no brand” - Bernard Kelvin Clive



KEY POINT: Product authentication can create a powerful competitive differentiator through enhanced consumer assurance, engagement and experience that can lead to increased customer loyalty and sales

DSCSA & INTEGRATED AUTHENTICATION (COMPATABILITY)

Key Requirements

DSCSA Requirements

IA Applicability

Product Identification

Manufacturers and re-packagers to put a unique product identifier on certain prescription drug packages



Authenticate

Product Tracking

Manufacturers, wholesaler drug distributors, re-packagers, & dispensers in the drug supply chain to provide information about a drug and who handled it each time it is sold in the U.S. market.



Locate

Product Verification

Establish systems and processes to be able to verify the product identifier on certain prescription drug packages.



Collate

Detection & Response

Quarantine and promptly investigate a drug that has been identified as suspect, meaning that it may be counterfeit, unapproved, or potentially dangerous.



Validate

Notification

Establish systems and processes to notify FDA and other stakeholders if an illegitimate drug is found.



Communicate

Information Requirement

Wholesale drug distributors to report their licensing status and contact information to FDA. This information will then be made available in a public database.



Educate

4

INTEGRATED AUTHENTICATION (EXAMPLES)

How to help brand owners protect their products & reputation

TAMPER EVIDENT SEALS (Validate)

- The packages of most over-the-counter (OTC) drug products have at least one thing in common: They must be tamper-evident.
- A tamper-evident package, according to the regulations of the Food and Drug Administration (21 CFR sect; 211.132), "is one having one or more indicators or barriers to entry which, if breached or missing, can reasonably be expected to provide visible evidence to consumers that tampering has occurred."
- Ensuring your packaging has a tamper-evident design is critical for packaging security and to protect against everything from consumer tampering to bioterrorism and product counterfeiting.

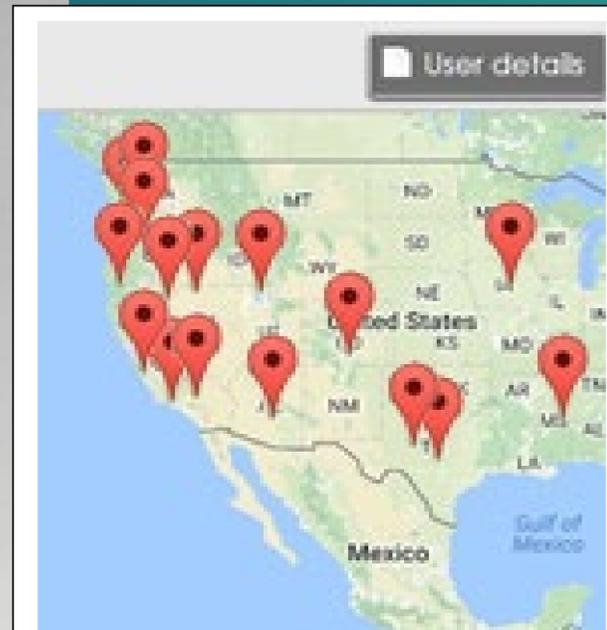




SERIALIZATION

Encrypted QR, RFID, NFC, GS1
(Authenticate)

- Unique product/item identifier that can be easily read electronically
- This digital platform is also ideal to share information across multiple platforms.



Product, consumer and geographic data is captured in Track & Trace serialization database to provide real-time product and consumer information

TRACK & TRACE

(Locate & Collate)

- Provides manufacturers, distributors & dispensers real-time tracking information about a drug and who handled it each time it is sold in the U.S. market drug supply chain.

COVERT MARKING (Authenticate)

- A covert layer of product authentication can be applied to a product in many ways and uses a forensic level of technology to confirm the authenticity.
- Company inspectors or supply chain managers log onto DataTrace app and scan product to test whether it is authentic or fake
- The DataTrace app can record other information in addition to the authentication scan result, including photos and notes.
- Authentication scan data is aggregated to provide real-time product and geographic data and reporting to monitor and manage counterfeiting. This data can be combined with other data sources



The screenshot shows a web browser window with the URL `datadot.taggyt.com/?link=serialization`. The navigation bar includes links for CERTIFICATES, SERIALIZATION, FOOD, NOTIFICATIONS, and MOBILE USERS. The dashboard has tabs for Dashboard, Production orders, Stock, Shipping orders, Code browser, and Feedbacks. The main content area is divided into three sections:

- Tasks:** A box indicating "No tasks".
- Local serial numbers pool:** A table showing the quantity of different serial number templates.
- Central serial numbers pool:** A table with headers for "Serial number template" and "Quantity", currently empty.

Local serial numbers pool data:

| Serial number template | Quantity |
|------------------------|----------|
| Pure numbers | 10,930 |
| Seq. serial template | 0 |
| SSCC template | 1,000 |
| BeansTemplate | 0 |
| Hrana | 1,966 |
| Aplha18 | 1,000 |
| WoTC SSCC | 0 |

Latest events:

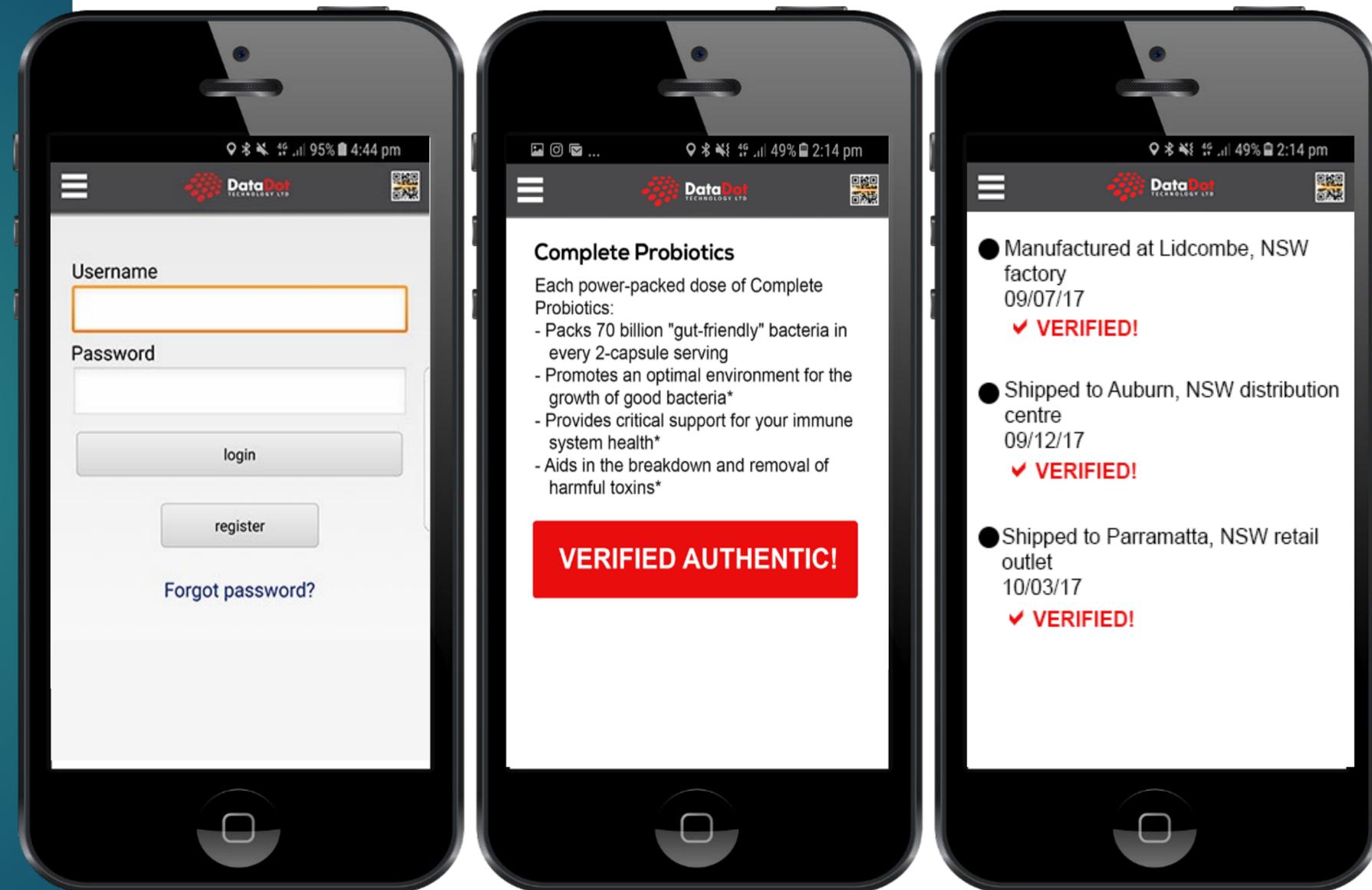
- 2095312 **Activate product**
Product 8 activated.
24.10.2017 18:35:46 - Krešimir Đuračić
- 2095224 **Edit location**
Subject location 27 inserted.
24.10.2017 18:33:08 - Krešimir Đuračić
- 2095182 **Edit location**
Subject location 24 inserted

DATA AGGREGATION (Educate & Collate)

- Provides an open yet secure system to verify the product ID and contributed information
- Authentication scan data is aggregated to provide real-time product and geographic data and reporting to monitor and manage the product movement within the supply chain creating an e-pedigree.
- This data can be combined with other data sources.

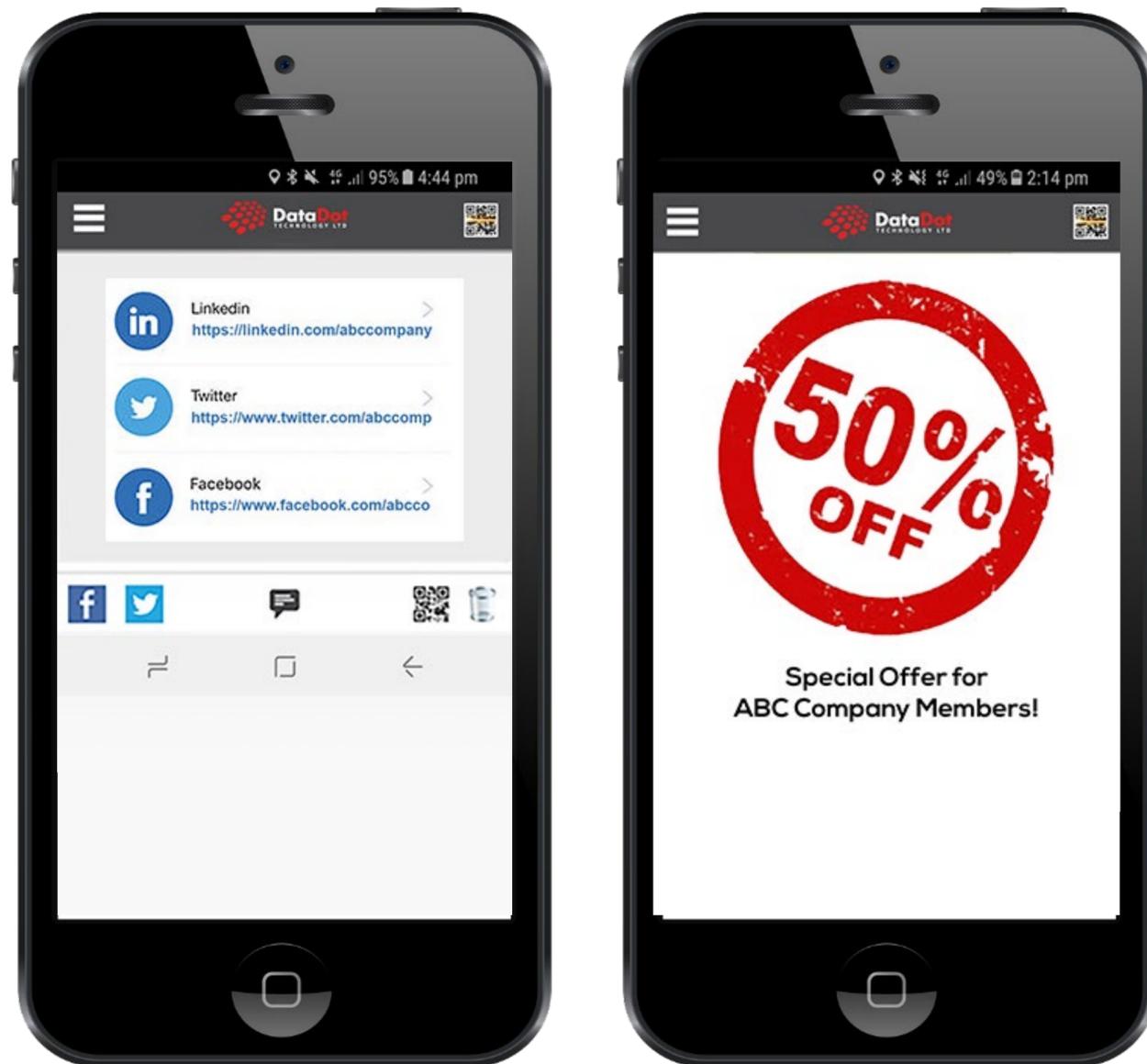
PRODUCT VALIDATION (Validate)

- Registered agents or customer can log into app which registers details creating a communication link with ABC Company and provides specific product information based on the users credentials.
- Product and brand collateral encourages customers to download the app
- Customer uses consumer app to scan QR code and enter product serial number – app confirms authenticity of product
- Consumer app provides provenance information about the product; enhancing transparency and trust



CONSUMER MARKETING (Educate, Communicate & Advocate)

- Consumer can connect and interact via social media to share product information and experiences with others creating product and brand advocacy and trust
- ABC Company can communicate with customer via consumer app to provide:
 - Promotional offers
 - Loyalty rewards
 - Product usage tips
 - Product recall notifications



POLL QUESTION 2

5

DATATRACE OVERVIEW

DIAGNOSTIC SOLUTION PROCESS

Integrated Authentication Solution

Discover



Building an understanding of the customer and their business to create a value hypothesis for change

Key Activities:

- Conduct initial meetings to build understanding of customer's business and stakeholders
- Develop Problem Definition Statement with stakeholders
- Create a value hypothesis for change

Diagnose



Exploring the elements of the customer's problem to identify and prioritise the key issues to resolve

Key Activities:

- Construct an Issue Summary identifying the key issues to solve
- Create an Issue Risk Assessment
- Quantify and validate business impact of issues and assign priority to resolve

Design



Develop a tailored solution to address the customer's needs

Key Activities:

- Assess possible solution options against customer criteria
- Develop Solution Design Statement with stakeholders
- Create Test Plan for solution
- Create Business Case and Pricing Model for solution

Deliver



Create and implement the tailored solution to realise the benefits

Key Activities:

- Finalise and sign Solution Proposal
- Execute Solution Implementation Plan and manage deliverables
- Provide benefit realisation reports to validate solution success

Stable & Secure

Listed on the Australian Stock Exchange.
Headquarters in Sydney, Australia

Agile

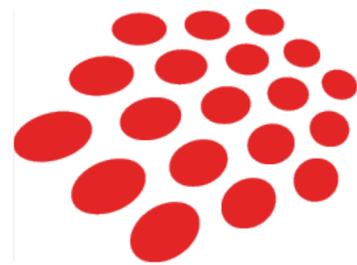
An agile team from CEO down; With focus on delivering customer benefit efficiently

Industry Applications

Pharmaceuticals, Food and Beverage, Automotive, FMCG, Government, Textiles, National Security & Defence, Gaming, Industrial Assets, Bulk Materials

Global Reach

Offices in Australia, USA and UK. With distribution network across Europe, Africa, The Americas and Asia



DataDot
TECHNOLOGY LTD

Experienced

Over 10 years of experience in providing customised authentication solutions

Leading IP

The patented DATATRACE Forensic marking system is “Best-in-Class” and deployed in conjunction with a range of partner technologies

Major Brands

The brands worked with include:



SUBARU



NOVARTIS



CROWN



Associations

ISO Certified, Crime Stoppers, Institute of Packaging Professionals, Interpol, National Insurance Crime Bureau, International Association of Auto Theft Investigators

COUNTERFEIT COUNSEL SURVEY - 2018

COMPANY

Counterfeiting is a significant global problem that is a growing concern for companies...

52% View counterfeit as a problem for their company – 30% “significant” or worse

61% Predict counterfeiting to remain a problem or increase over next 3 years – 40% expect it to become a bigger issue

69% Have taken some form of counter measure to combat counterfeiting – Auto & Aeronautical, FMCG, Food & Beverage companies are most active

72% Rate “loss of trust in brand” as highest concern (rated Medium, High or Very High)

77% Rated their ‘own company’s’ efforts sufficient (rated OK, Good or Very Good) – compared to only 56% for their peers – suggesting they are doing a better job

INDUSTRY

...and has permeated all industries, posing a significant threat to industry viability...

75% View counterfeit as a problem for their industry – 47% “significant” or worse

64% Respondents in FMCG and Food & Beverage rate as “significant issue”

89% Predict counterfeit to remain a problem or increase over the next 3 years – 58% expect to be a “bigger problem”

56% Experience primary counterfeiting in their industry – 34% experience both primary and secondary counterfeit

83% FMCG respondents rated ‘retailers’ efforts as “Poor” or “Very Poor”

86% North America respondents rated ‘online platforms’ efforts as “Poor” or “Very Poor” and 71% rated ‘retailers’ as “Poor” or “Very Poor”

CONSUMER

...and causing an increasing level of awareness and concern for consumers.

72% Believe consumers have some level of “awareness” of counterfeiting

41% Believe consumers are “concerned” about counterfeiting

75% Respondents in Auto & Aeronautical and FMCG believe consumers are “concerned” about counterfeiting compared to 41% for other industries

52% Respondents rated “loss of life” as 4th highest concern (rated Medium, High or Very High) – this was behind “loss of trust in brand”, “loss of earnings” and “loss of brand scarcity”

6

Q&A SESSION

Question time to answer your important questions and provide further information

GET IN TOUCH

For more information on how we can help you combat the problem of counterfeit drugs, please contact us.



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