GOVERNMENT SECURITY SOLUTIONS

SECURE MARKING, AUTHENTICATION, TRACKING AND TRACING TO ASSIST CUSTOMS

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WCO IT Conference Brisbane
May 2014
1. SICPA OVERVIEW
SICPA - AT A GLANCE

Founded in CH in 1927

Offices in 30 countries

Sales to 160 countries

50+ engineering expertise

3000 employees
SICPA - GLOBAL ROLE

Securing almost all of the world’s currencies, and value documents with high security inks

Mark, authenticate, track and trace a growing range of products

140 billion banknotes

77 billion products
2. THE PRODUCT CONTROL CHALLENGES
TRACK AND TRACE: OUR DEFINITION

Tracking = location of item along its logistics chain

Tracing = Origin and path of item

Tracking and tracing can be differentiated into forward and backward.
CROSS BORDER TRADE REQUIRES RELIABLE INFO

1’000’000 for 100’000’000 in circulation

Foreign Manufacturer, Exporter, Port, Customs, International Transport / Transit

Self declarations, SAD, documents & data
3rd party laboratories / inspection / notified bodies / logistics docs & data
Foreign Customs (G2G, AEO, IPM) docs & data…

Manifests & Packing docs
HS Classification
Valuation (ACV)
Product description / content
Origin certificates
Conformity certificates (A)EO details…

What if documents are fake, details are wrong, products are not those declared: how can Customs find the truth rapidly without impacting clearance process speed?
POST-CLEARANCE AUDITS MAY BE TOO LATE

Once products are released to the market:
- 100% certainty of goods’ origin cannot be guaranteed
- Documentation may be modified
- Responsible actors along the distribution chain may be difficult to trace
- What consumers buy may be counterfeited without means to prove it or find counterfeiters
- Tax may not be paid (Carousel fraud)
- Legitimate economic operators suffer from smugglers
- Concern for high risk, high value, sensitive, prohibited or restricted goods

Smuggling / counterfeiting hinders local economy, tax collection and consumer health, and is expanding, requiring to seriously consider marking, authentication, track & trace
2. HOW CAN MARKING, AUTHENTICATION AND TRACKING AND TRACING ASSIST CUSTOMS
SYSTEMS AGAINST SMUGGLING AND COUNTERFEITING EXIST

4 key pillars are required

1. Secure marking and activation of legitimate goods by legitimate producers / importers

2. Distribution chain events tracking

3. Effective authentication and traceability inspections by law enforcement agents and economic operators

4. Data gathered for and managed by the Government, interoperable with other systems
A. TECHNOLOGY - RELIABLE MARKING, AUTHENTICATION AND TRACK & TRACE SYSTEMS SHALL CONTAIN DIGITAL-BASED AND MATERIAL-BASED SECURITY

The full scope covers both authentication and track & trace
EVOLUTION OF TECHNOLOGIES

Serialisation, unique numbering data > central database

+ Product SKU data
+ Production data
+ Distribution logistics data
+ QR codes, logistics codes
+ Packaging aggregation data
+ Business Intelligence
+ Internet of things, interoperable

Increased security

Inspection devices, smartphones

RFID chips, security seals

Semi-covert, covert security features, inks, OVI

Overt security features, inks, guilloche, taggants

Paper stamps, substrates, tamper-evidence

Digital security

Material security

Big Data

Security

Product SKU data

Production data

Distribution logistics data

QR codes, logistics codes

Packaging aggregation data

Business Intelligence

Internet of things, interoperable

Inspection devices, smartphones

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Semi-covert, covert security features, inks, OVI

Overt security features, inks, guilloche, taggants

Paper stamps, substrates, tamper-evidence
BOTH ARE INCREASINGLY CONSIDERED ESSENTIAL, TOGETHER

ISO Technical Committee 247 - Fraud countermeasures & controls

ISO 16678: Guidelines for interoperable object identification and related authentication systems to deter counterfeiting and illicit trade

For products subject to counterfeiting and/or illicit trade, as well as sensitive products (as identified by corresponding regulation), UID (unique identifier) codes should bear intrinsic physical security layers.
Intrinsic physical security layer options include but are not limited to:
- Security inks, taggants, optically variable devices and other authentication features
- Embedded secret keys
- Encrypted information related to secure element
- Physical unclonable functions or markings

ISO 12931: Performance criteria for authentication solutions used to combat counterfeiting of material goods

Authentication elements part of the material good itself and/or its packaging.
Defines severity, occurrence and detectability of associated risks.
Provides an authentication solutions evaluation grid.
SECURING MATERIAL + DIGITAL MARKING / IDENTIFICATION: KEY LINK BETWEEN THE PRODUCT, ITS ORIGIN AND DISTRIBUTION PROCESS

CUSTOMS
Secure codes / marks
identifier linking product and production for authentication, track and trace evidence

BRAND OWNER
Labeling obligation:
Product Name,
Ingredients,
Expiration Date
SKU / Serialization
Production date / location

DISTRIBUTOR
Tracking events capture
Web / smartphone / device for authentication and traceability of machine & human readable codes

CONSUMER
Web / smartphone / device for product authentication with machine & human readable codes

POINT OF SALE
Web / smartphone / device for authentication and traceability of machine & human readable codes
B. PROCESS FOR IMPORTS

1. Importer orders stamps
2. Upon Gvt approval, importer receives coded stamps
   ↓
3. Stamps shipped to foreign manufacturer
4. Stamps applied on products by foreign manufacturer and activated
   ↓
3b. Stamps kept by importer
4b. Stamp applied before clearance
5. Stamped products shipped by foreign manufacturer
   ↓
5b. Stamps activated
6. Customs clearance
7. Importer declares reception of stamped products
8. Inspections along distribution chain and at point of sale

Administration has access to data:
- Products planned to be imported
- Products imported from a reliable source
AGGREGATION TO FACILITATE CUSTOMS ACTIVITIES

Use of existing standards for logistics & consignment codes / symbology

Aggregation data, shipment / reception data, reconfiguration data, waste data

Government Data Management System: contains all data to facilitate law enforcement activities. Data may be exchanged with other Agencies (Tax, Health…), or regional control systems (EMCS…)

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CROWD SOURCING TO GENERATE DATA AND INTELLIGENCE AGAINST FRAUD (TAX, COUNTERFEITING, SMUGGLING)

- Public / consumers
- Millions
- Law Enforcement Agents
- Points of Sale
- Thousands
- Importers, Distributors
- Thousands
- AEO, trust
- Manufacturers
- Thousands
- AEO, trust
- Hundreds
- Trust: is the product authentic?
3. CONCLUSION
KEY SUCCESS FACTORS

- Government willingness to implement a track and trace programme for selected products (e.g. excise) with supporting legislation.
- System in the hands of and controlled by the Government, and adapted to cope with local constraints.
- Selection of a system provider independent from the industry to ensure data integrity, while working closely with the industry for mutual benefits.
- Start with targeted products (high value, high tax), then expand.
- Full implementation by product to combat fraud (fight loopholes).
- Multi-layered security (material-based and digital-based).
- Interoperable with other systems.
- Open to existing coding / symbology standards.
- Effectiveness of law enforcement activities using adequate authentication and track & trace tools.
- Effectiveness of sanctions leading to transparency and protection of legitimate economic operators.
DOES IT WORK? CLIENT TESTIMONIALS EXTRACTS

ALBANIA

“384 economic operators registered, out which 168 have been registered with the tax authorities before the implementation of the new law.

50 cases of violation have been evidenced. The unpaid excise tax is about USD 660,000, while the imposed fines are USD 1,692,000”

Arlinda Mulgeci, Deputy General Director of the Albanian Customs Administration at the World Customs Organization (WCO) Conference in Dubai, May 2013

BRAZIL

“Tax collection in the beverage industry increased considerably with this more advanced approach to monitoring production, known as SICOBE. In the tax arena, certain tax avoidance tactics exist that efficient measures, like this system, eliminate.

SICOBE makes it possible to more reliably and accurately monitor [the production of each beverage] in real time.”

Otacílio Cartaxo, Secretary of the Brazilian federal tax authority, quoted in Folha de Sao Paulo, 6 Apr’10

CALIFORNIA

“California is pleased with the encrypted cigarette tax stamp and we recommend the technology for use in other states. The use of our encrypted stamp has significantly increased effectiveness and efficiencies in the duties performed by the enforcement officers. The system attributes provide California with the technology needed to stay a step ahead of the counterfeiters and cigarette tax evaders.”

Lynn Bartolo, State of California Chief Special Taxes and Fees Division, in a letter dated 24 Feb’11
MOROCCO

“The aim of marking is to create traceability, to know in real time the production of the ones and others. The experience in a certain number of countries, in particular Brazil and Turkey, shows that this system offers a strong prospect. The increase in declarations reached 20% after the marking installation. We therefore suspect that the amounts of the statements were previously somewhat undervalued. Apart from that, we made a certain number of controls which also resulted in several recoveries...”

Zouhair Chorfi, Director General of Morocco's administration of customs and indirect taxes, interviewed by L’Economiste, 12 Oct’12

GEORGIA

“SICPATRACE® implementation has started in Georgia in February 2012 and is fully operational on tobacco, alcohol and beer products. I would like to express my gratitude towards the company and highlight its excellent performance for reaching the objectives and requirements set by the contract between SICPA and GRS.”

George Bubuteishvili, Head of Service Department, LEPL Revenue Service (GRS) in reference letter to SICPA, 2013

CANADA

“At this point in time, … I am very satisfied with how the program has been put in place and firmly believe that its success is directly related to the expertise and professionalism demonstrated by both the Canadian Bank Note Company and SICPA Product Security SA.”

Pierre Bertrand, Director General, Excise and GST/HST Rulings Directorate, Canada Revenue Agency, in a letter to SICPA in Aug’11
BRAZIL - Soft drinks and beer industry publicly recognises the benefits of the system to control and monitor their production.

“NATIONAL BEER PRODUCTION
With the installation of SICOBE (Beverage Production Control System), it was possible to control and monitor the beverage production, especially with soft drinks and beer.”
