

**Digital Tax Verification (DTV) –  
'Codentify', the Industry Standard**

**October 2010**

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This paper provides an overview of information needed to develop market plans to address the introduction of ineffective and costly enhanced paper tax stamps by promoting 'Codentify' for Digital Tax Verification.

## Introduction

The purpose of this document is to give an overview of the very important initiative on Digital Tax Verification (DTV). The objective of which is to avoid costs, incurred by enforced implementation of expensive, and often ineffective third party security solutions for enhanced tax stamps (worst case estimate for ITG in 17 important markets totals over US\$600 million pa). This will be done by promoting state-of-the-art digital solutions that are very cost efficient for both the government and manufacturers, and at the same time more secure and effective in protecting government revenues from illicit manufacturing and counterfeiting of fiscal markers.

The illicit trade in tobacco products is a serious and growing problem for us, the industry and authorities worldwide.

Experience so far suggests that illicit trade issues fall into the following areas:

- **Contraband** – Legitimate products purchased on duty paid or duty free basis but smuggled into and sold illegally in other markets in contravention of fiscal or customs laws
- **Counterfeit** – Products which illegally copy existing brands which are manufactured and/or sold in violation of trade mark rights, often smuggled into other markets to be sold without any duty being paid
- **Cheap Whites** – Cigarette products produced by small manufacturers (paying minimal tax at the point of manufacture) which are often smuggled into and sold illegally in other markets

Governments, International agencies and the tobacco industry are under pressure to develop more effective solutions in the fight against all the forms of illicit trade in tobacco.

Supply Chain security is critical and the technical solutions which can be employed are:

- **Tracking:** The ability to monitor the forward movement of finished goods through the supply chain to first external customer.
- **Tracing:** The ability to recreate that movement up to a certain point in the supply chain to help determine where the product was diverted into illegal channels
- **Volume Verification:** The ability to verify production volume vs. excise taxes and duties paid.
- **Authentication:** The ability to determine whether a product is counterfeit (fake) or genuine

Currently the programme of T&T within ITG (and the other international manufacturers) is down to carton level whereas volume verification and authentication is applied at pack level.

More and more governments use fiscal measures to generate tax revenues and address their public health objectives. As a result, tax levels have been increasing in many countries around the world, providing a bigger incentive to illicit trade. One of the measures often advocated to address the problem of illicit trade is the application of tax stamps to verify tax paid volume and provide an 'authentication' marker.

In this context, many Governments are considering to introduce or improve their tax stamp systems. Both traditional tax stamp manufacturers (e.g. De La Rue) as well as

companies such as SICPA and 3M have become very active in this domain. These companies typically offer enhancements to fiscal markers, e.g. features such as holograms and security inks that aim to make counterfeiting paper tax stamps more difficult. They also propose systems that register tax stamps as they are applied to the cigarettes packs during the manufacturing process, and verify this information with the list of tax stamps originally delivered. Based on industry experience - particularly with the SICPA system adopted by governments in Malaysia, Turkey, Brazil, California and recently Morocco - these systems are costly and not necessarily secure and effective.

## 2. Paper based tax stamps

The trend of more and more countries implementing or 'improving/enhancing' tax stamps continues. Today, 68 countries are using tax stamps for excise goods, this compares with less than 20 in the 1980s. The main driving force is the increasing illicit trade issue and the WHO's FCTC negotiations for a protocol to counter the illicit trade in tobacco products. A good illustration of the context in which tax stamps are marketed is the MPOWER report, published by the WHO in 2008, which claims that "*Smuggling can be reduced by prominently affixing tax stamps to every package intended for retail sale*".

Suppliers of tax stamps use FCTC related developments as a sales platform. They suggest, for instance, that tax stamps can help in fulfilling the Tracking and Tracing (T&T) requirements of Article 7 of the draft protocol. These Suppliers understand that "*tax stamps are a major market opportunity for suppliers*" and that "*tax stamps are big business*"<sup>1</sup> With the business potential becoming more clear, a number of international suppliers have started to become active in marketing and selling their products, including SICPA (Switzerland); DeLaRue (UK); EDAPS (Ukraine) and 3M (USA).

We believe that paper based tax stamps are outdated for both tax collection and as an anti-illicit trade technology measure for governments, for a number of reasons:

1. The overt security features on the stamps are easily and successfully copied by counterfeiters within a matter of weeks – in a quality good enough to fool most consumers.
2. The covert security features incorporated into these stamps are only detectable using special reading equipment available only to customs and other law enforcement agencies. As a result, large sectors of the supply chain such as consumers and the trade (distributors, wholesalers and retailers) cannot 'assist' in the search for counterfeit product. The ability for tax stamps to identify counterfeit product is therefore limited.
3. Genuine tax stamps (if acquired) can be affixed to counterfeit product, i.e. the fact that a tax stamp is genuine does not necessarily mean that the product is genuine.
4. There is a risk that paper based tax stamps are stolen, for instance when transported from printers to manufacturers, and then applied to counterfeit product.
5. Paper based stamps are not in line with the e-government initiatives taking place around the world, where governments modernize and streamline administrative processes, including tax collection, by moving away from paper based systems.

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<sup>1</sup> Tax Stamp News, 2009

In addition, paper based stamps have many disadvantages for manufacturers, including the overall costs related to tax stamps, including working capital, and the administrative hassle (insurance, secure transport and storage, return and reconciliation of unused/damaged stamps) and production interference/disruption.

However we need to keep in mind that manufacturers' concerns are largely irrelevant for governments and therefore it may not make sense to give too much weight to these arguments in our engagements.

Finally, as paper stamps are becoming more sophisticated or 'enhanced' with the addition of holograms, security inks or other technologies, the costs for the stamps increase. By way of comparison, the following table lists the costs in various markets.

Cost of tax stamps (US\$ per thousand cigarettes)		
• "Traditional" tax stamps		
- Germany	\$ 0	paid by Govt
- Russia	\$ 0.05	
- Indonesia	\$ 0.13	
- Italy	\$ 0.17	
- Serbia	\$ 0.28	hologram
- Ukraine	\$ 0.34	hologram, EDAPS
• SICPA enhanced stamps		
- Canada	\$ 0.22	not yet implemented
- California	\$ 0.24	
- Turkey	\$ 0.26	
- Philippines	\$ 0.35	proposal
- Malaysia	\$ 0.80	security mark, not stamp
- Brazil	\$ 1.50	incl. volume control, paid by Govt
- Venezuela	\$ 1.80	not yet implemented
- Morocco	\$ 2.80	not yet implemented

The SICPA cost model is unknown but what is apparent is that the cost per stamp (including security features) is gradually increasing to the latest to be applied in Morocco. Taking this as a cost per thousand cigarettes and applying this to ITG sales volumes LE for 2009/10 of 15 billion in Morocco, the annual cost in the market will be US\$ 42.8 million. A 'knock-on effect' of markets implementing a SICPA solution is a very real threat e.g. other North African markets following the Moroccan model and more importantly for ITG, an EU market implementing a SICPA solution being followed by other EU Member States.

### 3. SICPA

The most active and influential supplier of enhanced tax stamps is SICPA (Société Industrielle et Commerciale de Produits Amon); a privately owned company founded in 1927, based near Lausanne, Switzerland. The company has about 2000 employees, including more than 300 engineers, and has two main business units:

1. A banknote & document security unit (SICPA is a global leader of high-tech security inks, supplying inks for many of the world's currencies including the Euro);

2. A product security & solutions units, which supplies T&T solutions including a master case product tracking system for JTI in Europe and enhanced tax stamps to a number of countries, including Brazil, Turkey, Canada and the US States of California and Massachusetts.

The company has affiliates all over the world and is owned by the Amon family, which is ranked, 88th on list of wealthiest people in Switzerland with an estimated wealth exceeding US\$ 1 billion.

As the worlds' leading supplier of security inks for bank notes, SICPA has an excellent network of government contacts (e.g. Ministry of Finance, National Bank) and credibility – which they can leverage when engaging and proposing governments to introduce their enhanced tax stamps for excisable products. As part of their government relations strategy, they also extensively use the World Economic Forum (WEF) network. In fact, Mr Hans Schwab, who works on Government Relations for SICPA is related to Mr Klaus Schwab, CEO of the WEF.

SICPA has also engaged with anti-tobacco Non Government Organisation's (NGO's) and has obtained endorsements from organizations such as Tobacco Free Kids in the USA. At a market level, SICPA often works in partnership with market businesses, for instance the previous supplier of the market paper tax stamps.

On costs, the SICPA strategy is clear and simple; governments are told that their system will be paid by manufacturers, and that therefore there will be no costs to the government. Their most important selling position is that they claim that their system will deliver (increased) revenue.

It is very important to monitor activities by SICPA and other tax stamp suppliers in your market. If we are reactive, there is a big risk that we only learn about the activities of these suppliers when a tender document is published – often describing a specific solution in such technical detail that competing technologies, such as DTV using 'Codentify' are excluded. This situation is 'too late' for the industry as the SICPA engagement will have been active and very carefully planned for some time prior to a tender.

#### **4. The Industry Solution: 'Codentify' - Technology & Applications**

The chosen industry standard solution is a product marking technology for Digital Tax Verification using the product 'Codentify' which has been developed, owned and patented by Philip Morris International. The product will be licensed free to BAT, JTI and ITG.

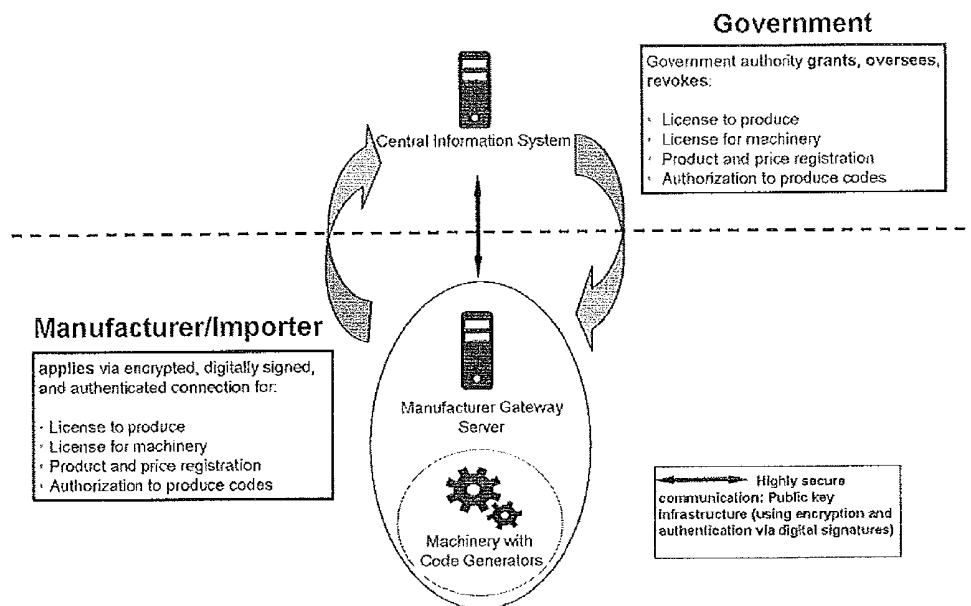
Initially developed in 2003 and subsequently refined, the product marking was used as an overt authentication technology but latterly further developed to include the functionality for product volume verification as a tool to aid government tax collection for revenue. The authentication function is effectively now an additional benefit of the solution.

Applying directly unique codes onto packs provides the ability to report the volume of production (effectively replicating the functionality of a traditional or enhanced paper stamp/fiscal marker).

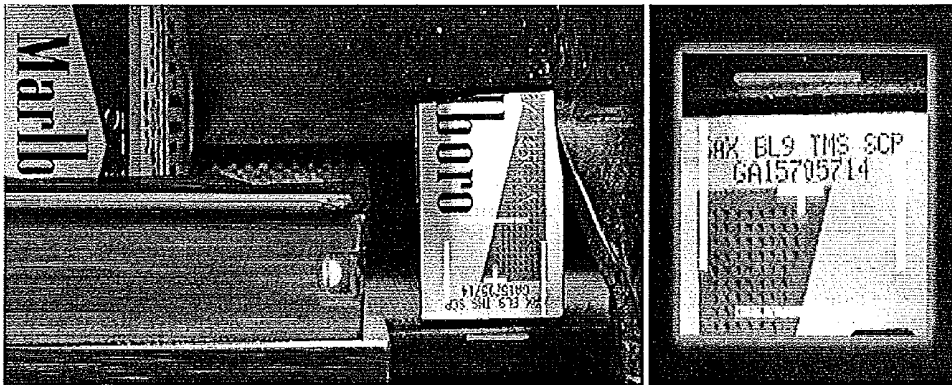
## How 'Codentify' works

- The government controls the licensing of all entities and machinery involved in the handling of the digital coding through a Central Information System. This system receives and approves applications for the establishment of entities involved in the manufacturing of tobacco products, for machinery used, and for digital coding for orders

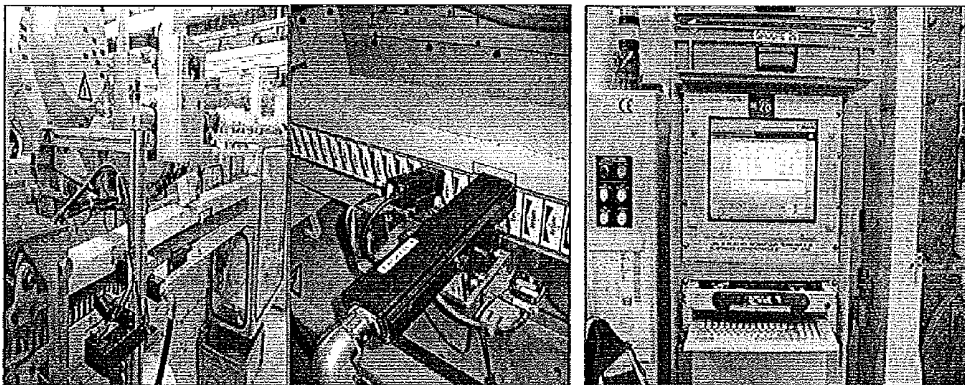
### Registering and licensing of manufacturers/importers of tobacco products



- This allows reliable production volume control/auditing of any manufacturer at any given time. Reporting occurs whether automatically or by request through the direct and highly secure online connection between the Central Information System and the individual manufacturers Gateway Servers.
- The digital codes come in the form of unique, alphanumeric codes (DTV codes) that are applied directly onto each individual consumer packaging and look perfectly random. The codes are generated by an algorithm from a virtually infinite number of combinations ( $34^{12} = 2,386,420,700,000,000,000$  possible combinations exist)

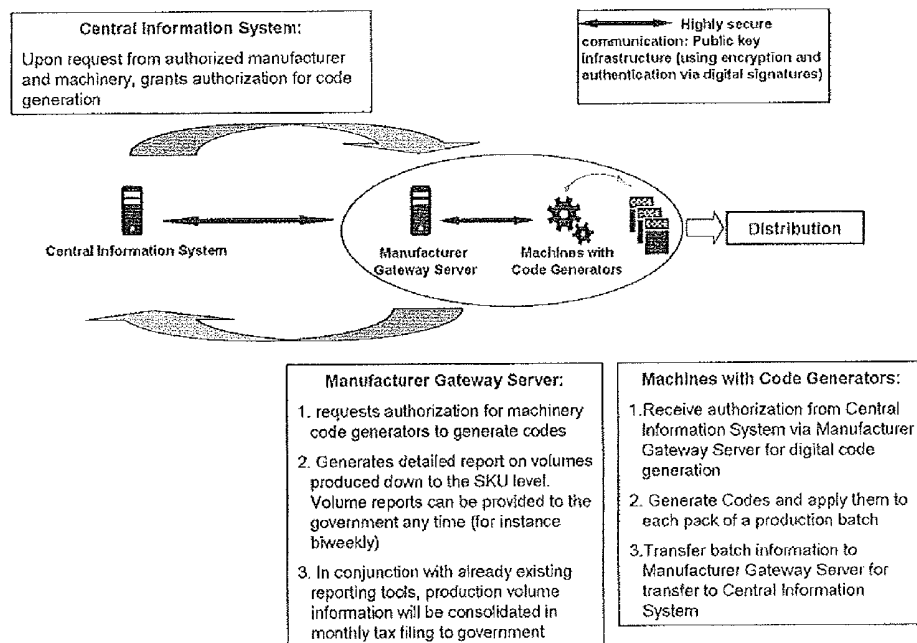


- Standard manufacturing equipment coupled with 'off the shelf' printing and vision systems print and verify the codes printed on the packs on the production line



- Upon request from manufacturers and distributors, the Central Information System grants authorization for the generation and application of the DTV codes (the electronic equivalent of ordering paper tax stamps). Only manufacturers and machinery verified by and linked to the Central Information System can generate valid DTV codes.
- With the 'Codentify' system, unique product identifiers (the unique ID of the cigarette packing machine on which the product is produced, the date and time of production) are encrypted. The resulting 12-digit alpha-numeric codes are printed on packs during the manufacturing process.

*Production volume verification and reporting*

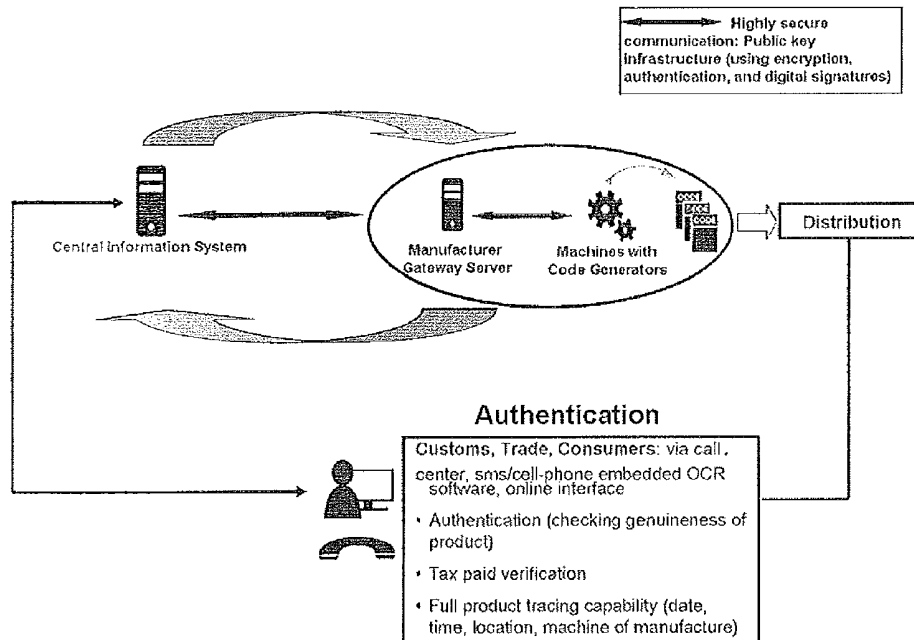


- The attribution, electronic generation, and printing of DTV codes are secured through a patented combination of algorithm-based encryption, authentication, and digital signatures (public key infrastructure - PKI) in the communication between all parties.
- The DTV codes generated and applied to the consumer packaging are counted in the Central Information System. Because of the use of algorithm-based encryption, DTV codes themselves do not need to be stored in any database. This along with the secure communication and authentication infrastructure eliminates the risk of codes being stolen or retrieved through the hacking of databases or interception of communication. Authorities can then view in 'real time' production and thus verify production.
- Authentication is the additional benefit to the 'Codentify' solution. There is no need for either in-depth training, special reading devices (such as special scanners), and/or further in-lab testing in order to assess the genuineness of the product.

DTV is the only technological solution for fiscal marking of tobacco products that allows not only government authorities but also members of the supply chain and consumers to directly and reliably check whether a product is genuine



## Authentication throughout the supply chain



There are today three different applications for 'Codentify':

1. Digital Tax Verification (DTV): the ability to use these codes, printed directly on the pack, to replace traditional tax stamps and other fiscal markers. The code fulfills the same functions as a paper stamp: (a) indicate to consumers and the trade that this is a legal, authentic and tax paid product; and (b) enable governments to verify that manufacturers and importers are paying the correct excise tax amount.

'Codentify' has this functionality because the system accurately counts how many codes are generated and printed during the production process for each individual production batch. In turn, each batch matches with a specific SKU (brand, destination market, stick count, price, etc) and thus a known excise tax level per pack. The system furthermore includes a secure real-time communication between the manufacturers producing for a market and the relevant government authority. As a result, it provides governments a secure and transparent overview of the quantity of cigarettes produced in any factory (volume verification) in the world for final sale in their country. 'Codentify' thus enables governments to precisely audit and verify the tax payments by individual manufacturers and importers.

2. Product authentication: the ability to distinguish counterfeit from genuine product. This application has already been implemented by PMI in Belgium, Colombia, the Dominican Republic, Ecuador, France, Germany, Guatemala, Italy, Lebanon, Mexico, Netherlands, Panama, Peru, Portugal, San Marino, Spain and Sweden.

With 'Codentify' product authentication, consumers, the trade or government officials can contact a call center to have the code on their pack validated. The call center will reply whether a code is a valid and on which product it was printed. In case of an invalid or "used" code (a code for which the call center has already received a call previously), it is likely that the consumer has a counterfeit product. The consumer will then be asked for more details regarding the sale (e.g. location, date time) and asked to send the pack to the consumer service center for analysis. Apart from a call center, it is in theory possible to have codes checked through SMS service or internet.

Counterfeiters cannot successfully break this system, because (1) if they print a random code on counterfeit packs, the chance of printing a valid code that matches the particular brand is less than 1 in 625.000; (2) if they print the same 'valid' code from a genuine pack bought on the market repeatedly, these products are quickly identified as counterfeit because every product should have a different and unique 'Codentify' code; and (3) the 'Codentify' system does not store codes in a database, and therefore there is no risk that the system can be hacked.

3. Pack Tracing: this refers to the ability to trace back (using the encrypted product/batch information, from a seized product, with the aim of identifying potential leaks in the legal supply chain.

## 5. Cost Model for 'Codentify'

There are 3 cost buckets related to 'Codentify':

1. One-time equipment costs at the manufacturer level

Each packing machine, producing for a specific market, needs to be equipped with a code-generator (off the shelf PC), a printer (inkjet or laser printer) and a vision system (to check whether codes have been printed correctly). In addition, each factory needs a 'Manufacturing Center Gateway' (MCG), which is a standard computer server which on one hand is connected to each of the code-generators in the factory, and on the other hand to the government server. Approximate equipment costs (these are guides from our Supply Chain Management/Technical Development and their suppliers) will fall in the range of US\$60,000 - US\$120,000 per packing machine, depending on the printing technology chosen (inkjet or laser), the printing application on pack (side or bottom), and the specific costs of integrating this with a specific packing machine. As we have no practical experience of this to date we will carry out a full evaluation on the first installations.

For a country DTV project, a government appointed solution provider (see section 7.3) will draw up the specifications of the manufacturer equipment and connections. The equipment is standard, off-the-shelf. Each manufacturer can then choose to buy and install the equipment themselves or through their supplier of choice and have the installation subsequently audited by the government appointed solution provider. This will be the option ITG and other major manufacturers are most likely to choose. Alternatively a manufacturer can buy the equipment from the government appointed solution provider as a turnkey project – an option more likely to be chosen by smaller manufacturers.

## 2. One-time costs at the government level

The one-time costs for each 'Codentify' project include the costs of the hardware needed by the government, the costs to customize the 'Codentify' software to the specific government needs (e.g. language, reporting screens) and the costs related to the commissioning of the system to the government (installation, training, documentation). Based on (limited) industry experience, these costs should be expected in the range of US\$ 1-3 million.

## 3. Annual running costs at the government level

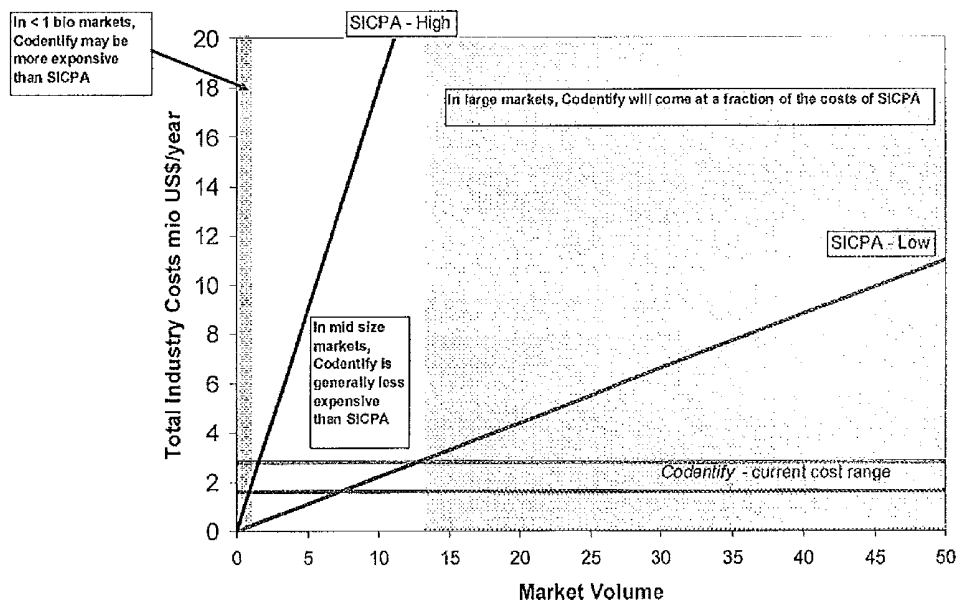
The annual running costs include everything related to the support that the government needs to run the system (i.e. governments might want a market support office being set up by the solution provider to assist them on a 24/7 basis; the government may want to outsource a call-center that consumers can call to check the codes, etc). Secondly, there will be a need for system and software updates. Lastly, the government appointed solution provider will be charged by the government with auditing the system – including regular audits of the proper functioning of the system by the manufacturers, which will factory audits outside the country in case of imports. Based on industry experience so far, these costs will be in the range of US\$ 1-2 million per year.

In summary, the first 'cost bucket' involves costs directly paid by each individual manufacturer to the supplier of equipment used in the factory. The second and third cost buckets refer to 'global' costs incurred by the government appointed solution provider. In principle, these costs could be paid by the government, and there may be governments who prefer this option. More likely, governments will want manufacturers to pay for these costs. In the actual cases we have experience with today, costs buckets 2 and 3 will be billed by the government appointed solution provider directly to manufacturers and importers, dividing the global costs on a market share basis. (The DTV system will report the share of codes generated for each manufacturer, which is a good proxy for the market share). As with tax stamps, these costs will thus be paid by the respective market.

## 6. Objective

Our objective is to prevent cost increases resulting from the introduction of ineffective and costly 'enhanced' tax stamps. Globally we face a significant cost exposure, as enhanced stamps could increase costs by US\$0.20-2.80 per thousand cigarettes. The 'Codentify' system, on the other hand, has fixed costs of US\$1.5–3.0 million per year per market (depending on the government specifications). As a result, 'Codentify' will have a cost advantage in all but the smallest markets.

Below is a cost comparison chart demonstrating where 'Codentify' becomes the cost effective solution over the SICPA enhanced tax stamp solutions:



To achieve this objective, we aim to make 'Codentify' the global industry standard for effective and modern digital tax verification. Not only will this help to avoid cost increases, it will also benefit us at the manufacturing level because a single set of 'Codentify' equipment can serve any destination market that adopts 'Codentify', i.e. we will obtain increased operational flexibility.

At the same time, it is important to stress that it is our **objective not to change the tax collection philosophy of each individual country**. Apart from introducing a digital code to replace a paper stamp, we aim to keep all other elements of the tax collection system (e.g. tax trigger point, payment terms) unchanged.

Of course, to adopt 'Codentify', governments will need to change the tobacco tax legislation, mandating the system as a requirement to be able to sell tobacco products in the country (much the same as today they would stipulate that tax stamps must be applied), and engagement with government is therefore a central element of the process for introducing 'Codentify'.

## 7. Strategy

Our strategy has 6 elements, discussed below:

1. Industry cooperation
2. Ensuring 'Codentify' is a credible alternative
3. Proposing a sustainable business model for the government appointed solution provider
4. Establishing a level playing field with other suppliers of tax stamps
5. Leveraging on the voluntary roll-out of 'Codentify' for authentication purposes
6. Competing in each market

## 7.1 Industry co-operation

Recently PMI, BAT, JTI and ITG signed a co-operation agreement as the Industry Working Group (IWG) on DTV to comply with Corporate Governance and to facilitate control with respect to anti-illicit trade collaboration on work streams for DTV development and implementation.

The agreement states "*The Parties agree that the main objective of the Industry Working Group (IWG) is to promote and implement secure, state-of-the-art, cost-effective Digital Tax Verification solutions. ... The adoption of a single industry standard, based on 'Codentify', is a key element of this strategy*".

Under the agreement, PMI will grant a global, perpetual and royalty free license for 'Codentify' to the other parties. All parties furthermore agree to share all future Intellectual Property relevant for the scope of the IWG, owned or developed by individual parties. Finally, the agreement includes a shared budget for further development of the technology and joint advocacy. The IWG is formed by the four major manufacturers, but the agreement is in principle open for any other tobacco manufacturer to join.

Creating this strong industry alliance has been a key requirement for progress. We need a common industry alliance – to 'endorse' the technology, and actively advocate and invest in this technology.

Each company recognises that governments are looking to protect and improve their excise tax revenue collections and to meet expectations in tackling illicit trade. Security product suppliers are actively engaging with governments and have had some success in selling their expensive solutions which have a major cost impact not only on our business but also for governments. The technologies on offer, predominantly based on paper stamps, quite often do not meet the expectations of governments in tackling illicit trade.

Governments need to understand that 'Codentify' will not favour one competitor over the other – in fact we need to make sure that also all market players, including the small manufacturers – do not see 'Codentify' as a barrier or competitive issue, but realize that this is an effective and affordable tax collection and anti-illicit trade technology.

As a rule, we should therefore develop joint plans with market management from the other manufacturers to promote the introduction of 'Codentify', and jointly engage with government. Individual actions by companies will only fuel mistrust and undermine achieving common objectives on this specific topic.

To ensure the best possible co-ordination, please keep the Commercial Integrity team always in the loop on market developments and if needed ask them to get in touch with the global project teams of PMI/BAT/JTI in case of lack of alignment on 'Codentify' at the market level.

**IWG Agreed working Principles:**

1. If tax stamps are proposed by solution providers or explored by the government, the market teams should report these developments to their respective IWG Operational Team members.
2. Engagement with authorities should be coordinated between the centre and market IWG members. The IWG member with lead market share to take the initiative lead e.g. ITG in UK.
3. Since this is not a competitive issue, the IWG members commit to be open and cooperative.
4. The IWG members will propose the DTV solution to counter proposals for paper tax stamps and/or where required to help reduce illicit trade.
5. The IWG will continue to raise market and international awareness with government officials on the advantages of DTV and the shortfalls of paper stamps.
6. The IWG will offer industry pilot programs to demonstrate the advantages of the DTV system vs. tax stamps.

It is extremely important that on this topic we fully cooperate both in market and centrally by sharing information and developing joint strategies to ensure that we have a fair opportunity in promoting our Industry solution for Digital Tax Verification – 'Codentify'.

When discussing with authorities it is important that we stress that, while the solution is developed and supported by the major tobacco industry players, the operation and control of the system will be handled by a third party organisation approved by the respective government to ensure transparency and independence for all stakeholders.

The IWG Operational Team is in the process of developing materials to support government engagement and this will be made available shortly.

**The scope of the joint work includes:**

- Cooperate to fund the development and integration of the DTV solution in order to achieve the IWG's stated objectives. This includes the joint development of 'Codentify'.
- Engage with key stakeholders, including governments and market tax authorities to promote a joint advocacy position on a global DTV solution. The goal is to establish a common standard which represents a credible alternative to paper tax stamps for tobacco products.
- Jointly promote and advocate the agreed and available open standards for Track & Trace.

## Organisation of the IWG

The IWG established following working groups:

**Steering Committee:** This group is approving the budget, technical development objectives, the implementation plan and the engagement plan. The members are:

- BAT: Pat Heneghan – Head of Anti-illicit Trade
- ITG: Adrian Welsh – Director, Commercial Integrity
- JTI: Jean-Luc Perreard – Corporate Compliance, Anti-illicit Trade
- PMI: Huub Savelkouls – VP, Fiscal Affairs & International Trade

**Operational Committee:** This group is developing the implementation and engagement plan; preparing and agreeing on joint advocacy materials; coordinating specific end market projects between the companies (including pilot programmes) and liaising with governments and solution providers. The members are:

- BAT: Daniel Hubert
- ITG: Mark Hill
- JTI: Brian Lee
- PMI: Goekhan Aladag

**Technical Committee:** This group is commissioning R&D in relation to developing the existing and new DTV technologies; coordinating joint development of the solutions; and overseeing performance and quality of the developed systems. The members are:

- BAT: Ben Guest and David Atkins
- ITG: Olaf Huderitz and Volker Carstens
- JTI: Reiner Schmitz and Alexander Chistov
- PMI: Alain Sager & Erwan Fradet

## How does the IWG manage projects?

There are three triggers for the IWG to engage with government authorities:

1. A proposal has been made by solution providers to introduce or update tax stamps for excise products;
2. The government is looking actively into solutions to address a regulatory issue;  
or
3. The IWG would like to pro-actively introduce DTV in a market to address market specific issues.

## Competition Law and Legal Opinion:

IWG group members started working on the details of the project as soon as they received affirmative legal opinions from their respective competition counsels to avoid competition law related implications. Throughout the development of the Cooperation Agreement and License Agreement each IWG member has had legal representation to ensure compliance with competition law and individual company procedure.

## **7.2 Ensuring 'Codentify' is a credible alternative**

One of the selling points used by SICPA and other suppliers is that their solution is 'independent' and that they are not linked to the tobacco industry. To highlight this point, they are actively seeking endorsement by anti-tobacco groups such as Tobacco Free Kids.

We therefore must be very mindful that governments interested in 'Codentify' need to be convinced for themselves that this is a high quality solution, which works totally under their control and supervision, and which is supplied to them by a credible third party technology company. Keep in mind that government department selecting 'Codentify' will need to be confident in defending their choice towards other departments within their own government, NGOs and other solution providers.

The role of the 3<sup>rd</sup> party solution provider (affiliate) that we would like to be appointed by government is critical. As an Industry Work Group, we have so far selected two such suppliers: Filtrona/FractureCode and Siemens. Their role is to guarantee to governments that the 'Codentify' system works, to promote and sell the system to governments and run pilot projects where appropriate and beneficial. After winning a government tender, the 3<sup>rd</sup> party solution provider selected by the IWG will install the system with the government, ensure it is properly connected to all manufacturing facilities, and provide training and support to relevant government officials and manufacturers. We will also propose to governments, if they see a need, to hire independent audit companies to review the 'Codentify' system.

## **7.3 Proposing a sustainable business model for the government appointed solution provider**

One role of the IWG is to select which government appointed 3<sup>rd</sup> party solution provider (affiliate) should 'market and sell' 'Codentify' in a specific market and under which conditions. The solution provider will obtain from PMI/IWG a market specific, royalty free license for the duration and purposes as specified by the government tender. The solution provider in turn will propose 'Codentify' in a government tender and in case the tender is won, negotiate a contract to supply equipment and services to the government.

Generally speaking, the global costs of 'Codentify' (i.e. those costs not related to equipment to be installed in factories) will be billed by the solution provider to the manufacturers operating in a market and paid by them on a market share basis.

## **7.4 Establishing a level playing field with other suppliers of tax stamps**

Our selected 3<sup>rd</sup> party solution provider (affiliate) must make themselves familiar with market government procurement procedures and if appropriate complain about – and perhaps even publicize – situations where contracts are being awarded through non-transparent processes. It has been our experience that public attention, for instance through the media, to such unfair and irrational situations (e.g. the introduction of expensive, ineffective systems with contractual conditions that appear not to be optimal



from a government point of view) can help to level the playing field and enable all suppliers to compete fairly.

A recent example was the media attention in the Philippines about the process followed by the Bureau of Internal Revenue (BIR) to award a contract for enhanced tax stamps to SICPA. This public attention eventually led to the Department of Justice reviewing the procedures followed, and subsequently ordering the BIR to stop its negotiations with SICPA<sup>2</sup>.

### **7.5 Leveraging on the voluntary roll-out of 'Codentify' for authentication purposes**

PMI have voluntarily launched 'Codentify' as a product authentication tool in Belgium, Colombia, the Dominican Republic, Ecuador, France, Germany, Guatemala, Italy, Lebanon, Mexico, Netherlands, Panama, Peru, Portugal, San Marino, Spain and Sweden – and more markets will follow. These markets were usually selected by PMI Brand Integrity to help address a specific counterfeit issue.

However, they will leverage this with relevant government officials to pro-actively address enhanced tax stamp proposals. Explaining to governments how effective 'Codentify' can be in identifying counterfeit product – and offering to roll it out on their whole portfolio and making it available to other manufacturers – this should help to eliminate the need to introduce tax stamps or add new expensive security features to existing tax stamps.

Furthermore, because the 'Codentify' software for voluntary authentication and for volume verification are identical, it will be possible to provide governments voluntarily volume reports produced using 'Codentify', which could help them understand the superiority of this system compared to legacy systems such as paper tax stamps. Eventually, this should help phase out old fashioned solutions to the benefit of a mandatory implementation by law of 'Codentify'.

Therefore, for every market in which PMI has 'Codentify' in place on a voluntary basis, or is considering to introduce it to address a specific counterfeit issue, they will aim to maximize these strategic long term benefits by (1) seeking endorsement by the government of 'Codentify', e.g. by asking the government to communicate to the general public what 'Codentify' is, how it works and how consumers and the trade can use it; (2) coordinating with the other market IWG manufacturers with the aim to plan a joint voluntary roll-out; and (3) having in place a well designed plan to communicate 'Codentify' to the consumer and trade, to make sure that consumers are actually going to use and benefit from this tool.

Once ITG begin introducing 'Codentify' into markets voluntarily this should also be the adopted strategy.

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<sup>2</sup> DoJ stops BIR negotiations on cigarette taxes, INQUIRER.net, First Posted 11:07:00 06/16/2010

## **7.6 Competing in each market**

To be able to successfully offer counter proposals for ineffective and expensive enhanced stamps, and where relevant pro-actively propose 'Codentify' markets should develop a plan – in coordination with the other manufacturers (where they are present) that we work with in the IWG and assisted by the Commercial Integrity team in Bristol. This section outlines the various elements to consider in this plan.

### **7.6.1 Situation analysis**

Based on publicly available information, you should obtain a good understanding and overview of the market situation: the legislation governing the general use of tax stamps or tax collection, the relevant government officials responsible for tax collection, the market tax stamp supplier (where appropriate), the current contract (duration, procedure and costs) for tax stamps, the tender process to be expected (on expiry of the contract) and a good understanding of public procurement rules, etc.

### **7.6.2 Systematic monitoring**

Become aware of any public events solution providers are attending or sponsoring (e.g. anti-illicit trade or counterfeiting seminars or conferences); any activities on the government side, including visits to manufacturing facilities (e.g. SICPA regularly invites officials to see their system in action in Brazil and Turkey); any discussion or proposals in parliament (e.g. anti-counterfeiting elements in the tobacco control law, discussion on tracking and tracing requirements that could include enhanced tax stamps).

### **7.6.3 Awareness raising**

In most cases, it will be productive to raise awareness with government officials about 'Codentify' – as well as share information and experiences with enhanced tax stamps in other countries. Feel free to contact Mark Hill with a view to inviting technical experts (from Supply Chain Management) to explain to government officials the technology in market seminars; or alternatively invite them to see 'Codentify' in action in one of our factories once this has been installed. You should also consider inviting one/more market colleagues from the other IWG manufacturers to come along, to clearly pass the message that this is a joint industry initiative. PMI have been inviting relevant market management from ITG (via the Commercial Integrity team in Bristol), BAT and JTI to such demonstrations in their factories.

### **7.6.4 Voluntary introduction of 'Codentify' for authentication**

Alone or jointly with the other IWG manufacturers, seek to leverage and where relevant proactively roll-out 'Codentify' for authentication, as described in section 6.5

### 7.6.5 Industry pilots

Currently PMI and BAT are further forward in the development and implementation of the 'Codentify' solution having installed, commissioned and gone 'live' within their manufacturing sites. JTI plan to install and run the technology soon.

ITG must gain the 'practical' experience within their manufacturing facilities to understand its integration and test the benefits described earlier in this paper.

A pilot will enable us to become proactive in promoting the solution and less reactive to initiatives from authorities and third party solution providers – the industry can then move forward ahead of the competition.

ITG will implement a pilot in October (in the Nottingham factory) for a market where 'Codentify' has been chosen over a SICPA solution through industry cooperation and engagement on a central and market level with the government.

The IWG are currently developing a proposal with market management for a pilot in Turkey where all the members have manufacturing sites. In order to proceed, the authorities would have to endorse this and be party to it and this will be explored collectively by the market industry members' management.

Turkey currently employs a system of 'enhanced tax stamps for volume control and authentication for both alcohol and tobacco supplied by SICPA and this has been in operation since December 2006. The current system is not without its shortcomings including cost to the industry players and the current contract expires at the end of 2011. The purpose of an industry pilot is to demonstrate to the authorities the capabilities of 'Codentify' for when the next tender is issued, which is expected during early 2011 for implementation in 2012. A pilot will also allow developing the final system specifications according to the government's needs. It is important that each pilot has a formal evaluation phase where all interested parties review and sign off the pilot results.

Following the Nottingham market pilot, further pilots could be voluntarily implemented in the factory (if technical development/resource permits) on certain lines for brands for either the UK and/or Ireland.

Both markets now have significant levels of illicit trade and the 'Codentify' solution could be a powerful additional measure for supply chain control and one which the authorities, particularly HMRC could be receptive to endorsing.

A further work stream being explored within the IWG framework is that of pack tracking, utilising the 'Codentify' codes on packs being linked to Track and Trace (for master case and carton) programmes.

The current draft of the WHO Framework Convention on Tobacco Control (FCTC) development for a 'Protocol on the Illicit Trade in Tobacco Products' has an obligation for the Tracking and Tracing of packs when technology permits, although a timescale of 'within 5 years of protocol signing' is indicated. These pilots could provide ITG with the means to develop this along side the T&T programme.

#### **7.6.6 Government tenders**

Obviously, in every case where a government publishes a tender to introduce or improve their tax stamp system, we should analyze the tender document, and jointly with the other companies in the IWG, decide which one of our shortlisted 3<sup>rd</sup> party solution providers (affiliates) to ask to participate in the tender process.

From the industry experience so far, tender processes will take more than a year to complete and are quite labour intensive processes, requiring excellent teamwork between the market, the Commercial Integrity and Supply Chain Management teams, the IWG manufacturers' teams and the selected 3<sup>rd</sup> party supplier (affiliate) – and a good understanding of the market procurements laws.

Sometimes government tenders will include tax marking for products other than just cigarettes, e.g. including other tobacco products, alcoholic beverages and sometimes even soft drinks and mineral water. If needed, to be accepted as a bidder, the government appointed solution provider will thus need to be ready to propose solutions covering all products included in the tender specifications. This may, on a case-by-case basis, mean that we also need to coordinate at the market level with other affected industries, e.g. alcoholic beverages.

#### **7.6.7 Communications campaign**

Depending on the market and situation, be prepared to use media to report on any concerns related to a potential lack of transparency in public procurement processes related to enhanced tax stamps. Of course, journalists must be briefed with accurate and factual information.

For internal communication, the IWG Operations members have drafted a market memo, signed by the members of the four companies summarizing the IWG objectives, working principles and market engagement support. This is circulated with this document to reinforce the degree of cooperation between the four companies on this important issue

#### **8. 'Codentify' equipment installation**

This is currently being determined and will be communicated separately once finalised – in the mean time please refer to the Commercial Integrity Team for proposed planning.

#### **9. Organization**

Within ITG, the 'Codentify' project is managed by Mark Hill (who also represents ITG on the Operations Committee of the IWG) and the Commercial Integrity team in Bristol in co-operation with Supply Chain Management (Olaf Huderitz and his team) in Hamburg. Overall supervision is done by Adrian Welsh, who also represents ITG on the Steering Committee of the IWG.

Of course, to be effective, this is a team effort with the contribution and co-ordination of other departments, particularly Sales & Marketing whose management and staff in the markets are best placed to identify threats and report accordingly through the intelligence channel (Regional project Leader – see 10 Next Steps) but also including Group Security & Risk Management (who may propose the voluntary roll-out of 'Codentify' in specific markets to address a specific illicit trade issue such as counterfeiting), IS (who will provide support to software development, installation and management), Manufacturing (who will work closely with Supply Chain Management) and Legal (for contracts and license agreements).

In case of requests for central support, please contact Mark Hill and the Commercial Integrity team in Bristol

## **10. Next steps**

As next steps we recommend:

1. That each Regional Director assigns a person (project leader) in their region to be responsible for this project. Please communicate the name of this person to Mark Hill ;
2. That the regional project leader develops a plan that considers each of the elements in section 7.6. Of course, in many markets the issue is dormant at this stage and you may judge that a reactive strategy of monitoring is the right one. You are in the best position to make this call – but our experience in several markets has been that on balance it is better to be pro-active. A very important point to make at this stage is the possible repercussions of 'losing' a market within a region (Corporate or geographical) to a third party solution provider of enhanced tax stamps – this will invariably be a strategic move on their part and enable easier engagement with the authorities of surrounding markets to adopt similar stamp regimes.
3. That the plan is finalised with Mark Hill and the Commercial Integrity team in Bristol, making sure that the other members of the Industry Work Group are aligned on the market plan;
4. Any market plan that requires equipment investments (e.g. voluntary 'Codentify' roll-out; government pilot) and/or involvement of a 3<sup>rd</sup> party supplier (e.g. tender submission) requires approval by the Regional Director and Adrian Welsh. Once agreed, Commercial Integrity and Supply Chain Management will make sure that the project obtains the right priority, focus and assistance, including the necessary installation of equipment in our factories.

Mark Hill  
4 October 2010