

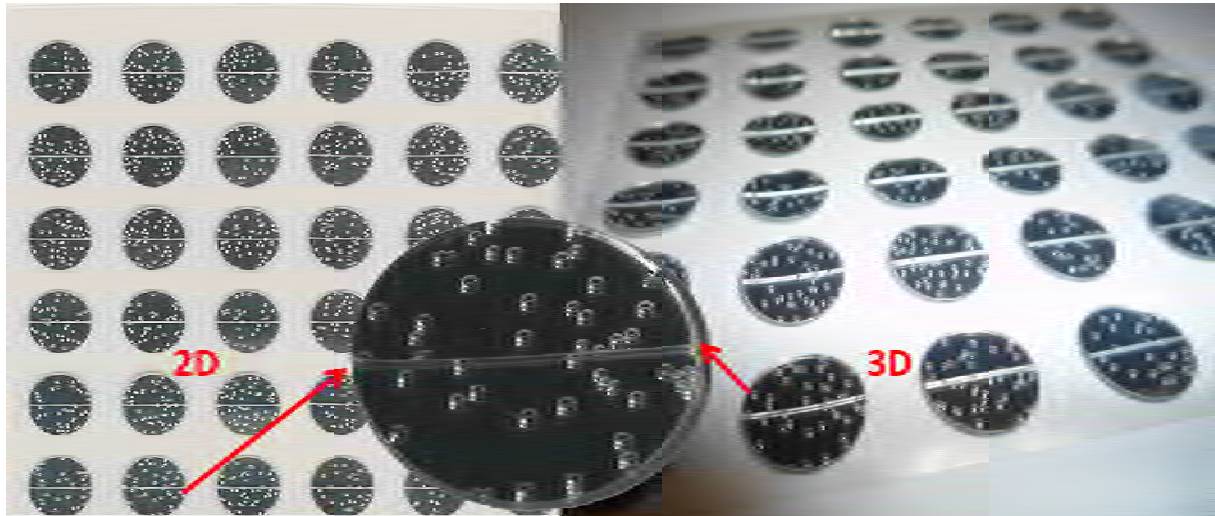
***Request of the Intellectual
Property Enforcement
Coordinator
for
Public Comments Regarding the
Joint Strategic Plan***

The 24th of March, 2010

PROOFTAG SAS

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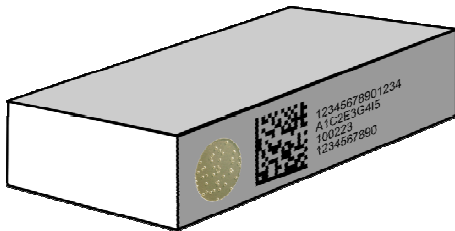
Distinguishing the genuine from the false with the BubbleTag™ technology in the Joint Strategic Plan

ProofTag announces that it will be launching joint with GS1 France their new cooperative platform “EstCeAuthentique?” at the end of the year, which will enable clients using secure traceability solutions and controlling authorities to verify the authenticity of their products. “Its objective is to combine as optimally as possible currently marketed authentication solutions with GS1 identification services (bar codes and serial numbers), in order to facilitate the fight against forgery,” declares Pierre Georget, Director of GS1 France. This platform will help the fight against counterfeiting by increasing the number of verifications and controlling their costs more effectively. This will improve the justification of the investment by those authorized to protect their products and provide SMBs with easier access to these solutions. After the publication of an orientation document in 2008 (see CR n°38), GSI launched the project to develop a global verification service demonstrator in partnership with SERES, a computer infrastructure operator in the business field, the Traceability Pole, and three authentication solution providers including ProofTag. This consortium, which started working in January 2009, anticipates the development of a pilot by the end of the year. According to Laurent Vieille, “in 2010 and subsequent years, it will be possible to deploy this platform globally, together with the effective standardization of these interoperability specifications for all authentication solutions, regardless of their technology.”



1 Linking traceability and authentication

The Internet and its associated technologies could well be the solution to the problem of authenticating documents and products – it just has to be given the means of distinguishing the genuine from the false.



Since 2003, Novatec and its affiliate **ProofTag**, have proposed a revolutionary concept to make products and documents secure, with on-line authenticity control. Today there are many companies offering traceability solutions based on the control of a matriculation number on a reference site. However these solutions do not enable the verification of the origin of a product or the non-falsification of a document. They merely serve to verify that the unique identifier is present in the system. With BubbleTag™, ProofTag provides the ultimate verification solution, visibly on the Internet. This invention ensures both the unit traceability and authenticity of documents and products, in a readily verifiable way anywhere in the world. The Internet plays a fundamental role in this unit authentication concept, in contrast with classical technologies.



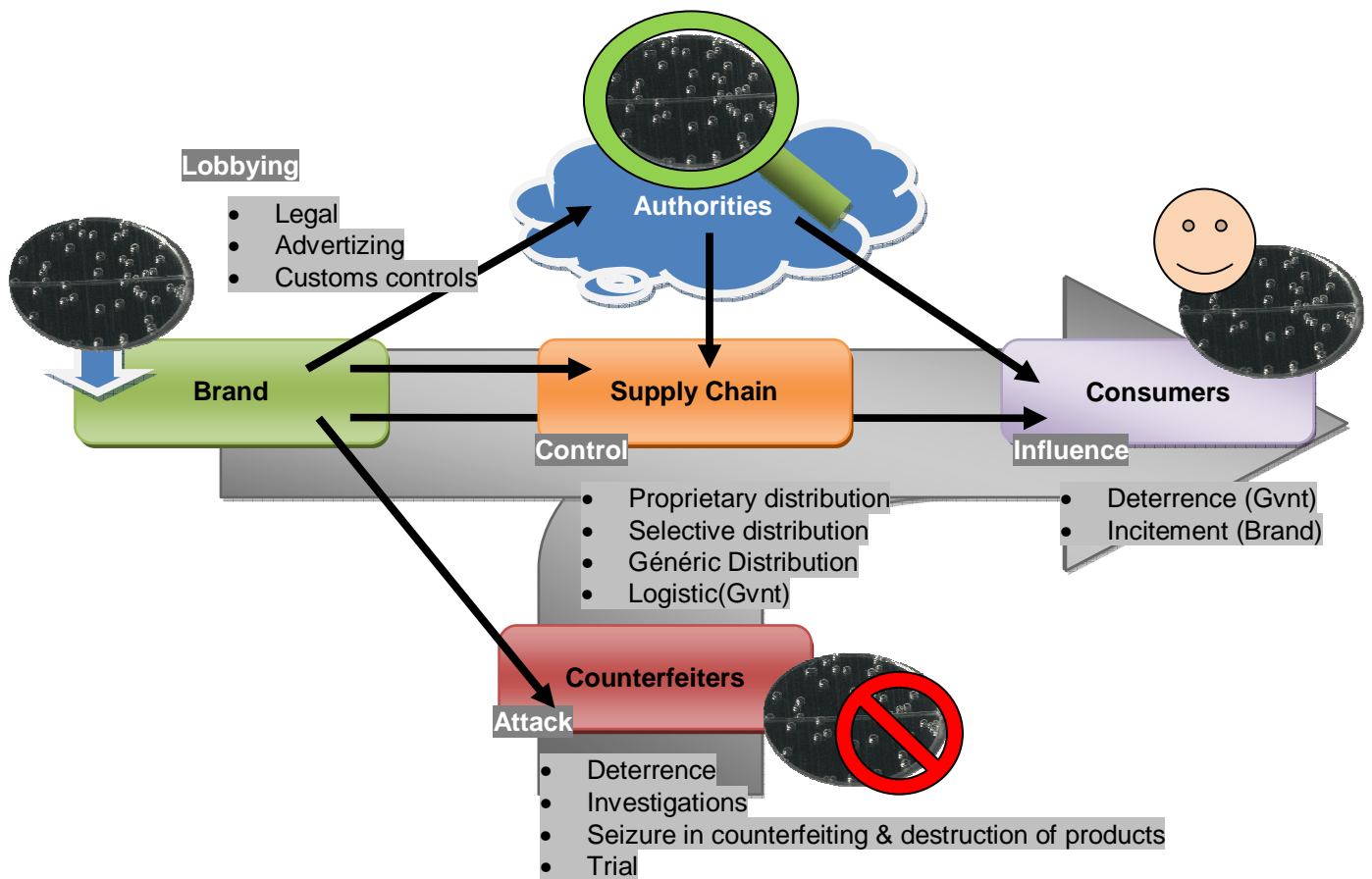
It enables the creation of a privileged link of confidence between a brand or administration using Bubble Tag™ and its clients or users, who need to be certain of the authenticity of a product or document. This direct, two-way link makes it possible to exclude counterfeiters and to re-establish the authority of a brand or of a public institution on the Internet. Thus, with Bubble Tag™, the Internet becomes the universal means of separating the genuine from the fake, by making authentication accessible to everyone, everywhere, regardless of language or culture.

2 What are Intellectual Property Enforcement needs?

2.1 Prooftag view on the Joint Strategic Plan

Counterfeiting is one of the main problems in our modern economy due to globalization, to differences between intellectual property rights and to the expansion of digital economy. The production and distribution of counterfeit products is a strongly attractive business involving little risks.

A strategy of brand protection is a mix of lobbying, control of distribution networks, legal actions, technology and marketing.

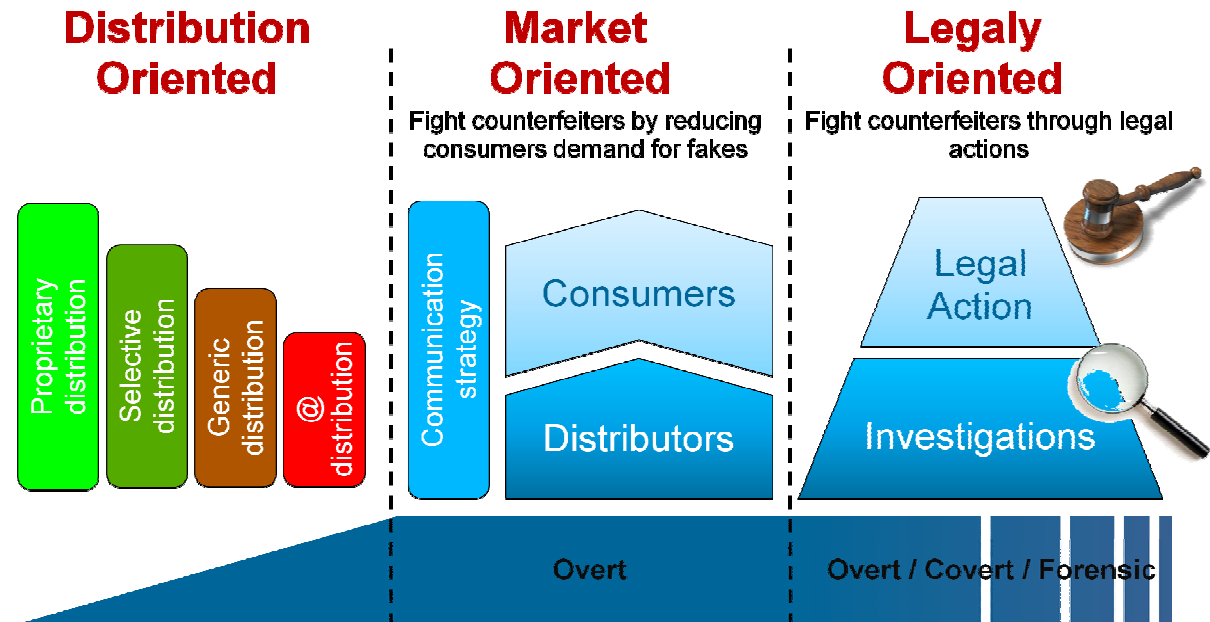


Counterfeiters can be compared to parasites which increase at the same rhythm as the brand they are attacking. If the brand and public authorities do not get organized to fight against this plague, counterfeiters will be able to expand their activities everywhere where the brand is developing. If they grow beyond a reasonable limit, they may cause the disappearance of the brand and its associated economy. Like any type of parasite, they can be stopped or controlled following three types of strategy:

- Destruction of the environmental conditions which enable them to thrive
- Prevention of their propagation
- Physical destruction

This analogy enables us to define three lines of action:

- **Decrease or disappearance of the demand for counterfeit products**



This line of action which acts on the consumers' demand to put the counterfeiters out of business will be described as a strategy of market approach of brand protection.

- Control of distribution networks

This line of action acts on the control of distribution networks and will be described as the control strategy of distribution networks.

- Legal action against counterfeiters

This line of action uses the available legal system array to sue counterfeiters. It will be described as the legal strategy of brand protection.

Those three lines of action are the foundations of a strategy of brand protection.

2.1.1 Control strategy of distribution networks

The control of distribution networks can be an efficient means to limit the circulation of counterfeit products and their sale to consumers. A strategy to bring under control the distribution networks implies a strong communication towards consumers in order to explain where to find the genuine products.

The control of distribution networks operates in different ways according to the type of distribution.

2.1.1.1 Proprietary distribution network

In this case, the control of the distribution network is complete. The distribution network becomes completely leak-proof to counterfeit products. It becomes easier to inform consumers that the original products are only available in the official sales outlets of the brand. It is not necessary to resort to a technology to authenticate the products in the distribution network.

The setting up of an information system which enables the brand and its network to follow the distribution cycle of products is essential. Each stage of the logistic chain is recorded and controlled. The control of product flows until the sales outlet is ensured by a change of state of each batch or unit of products. At any time, the brand knows the state of its distribution network and controls the deficiencies and exceptions that might occur.

2.1.1.2 Selective distribution network

The control exercised over the network is less strong. This leaves the door open to counterfeit products. However, since the distributors are specialists in the industry informed about the quality standards and the official distribution policies, it is more complicated for a counterfeiter to introduce counterfeit products in the official network.

However, since the counterfeits appear more and more often to be excellent copies, the presence of a technology which can be authenticated by human senses (overt and semi-overt) for professionals remains extremely useful to detect fakes. In this case, an information system must be put at the disposal of the distribution network to provide the logistic tracking and authentication data of the products. A partial follow-up of the flow of those products in the information system must permit to find inconsistencies in view of detecting any infringement.

2.1.1.3 Generic distribution network

Generic distribution networks are the most difficult ones to control. The control can be carried out by commercial agents of the brand or by investigation companies able to check the authenticity of the products on the sales outlets. In order to carry out this work efficiently, they must be able to clearly distinguish the real products from the counterfeit ones. The brand must operate a technology easy to control by its representatives who must be in a position to carry out quick controls as well as sampling at the sales outlets. In this case, the controls come as an addition to a legal approach of the protection of the brand.

The development of the generic distribution on the internet reduces in a major way the possibility of control of products by the commercial agents of the brand. Consequently, the brands must call on investigation companies specialized in the monitoring of internet websites.

2.1.1.4 Logistic control

The control of logistic flows can only be efficient if it is carried out in partnership with the customs authorities working with governments which are willing to fight against counterfeiting. This control of logistic flows is somehow uncertain since customs seldom check more than 2% of the incoming flows into a country. Moreover, if the counterfeiting is local, the products do not cross any border. The brand will have to work in close cooperation with the customs authorities if it wants the customs officers to check its products more closely. It will have to train these customs officers to the authenticity control of its products. In the same way as for consumers, the authenticity controls carried out by the customs officers will be made easier if the brand uses a technology which can be authenticated (overt, semi-covert, covert or forensic). The customs officers act as a warning device which signals the appearance of counterfeits. According to the local regulation, the legal representatives of the brand will have to act rapidly to seize or to release the irregular products. The implementation of an authentication solution easy to control and leaving no doubt whatsoever regarding the authenticity of the product makes the work of the customs officers more efficient.

2.1.2 Strategy of brand protection through a legal approach

The legal approach has as a final aim to act directly against the identified counterfeiters to destroy the infringing products and/or definitively stop the criminal activity of the counterfeiters by suing them.

Through investigations, the legal representatives of the brand will have to identify the counterfeit products present on the market. They will have to determine the origin of these products from the seller, the wholesaler and the importer to the manufacturer. This strategy may help to significantly reduce the volume of counterfeit products until the appearance of a new counterfeiter.

The investigators working for the brand will have to be trained and have at their disposal control technologies in order to rapidly identify the counterfeit products on the field.

This strategy is generally a very-short term approach based on a return on investment calculated in relation to the value of the counterfeits versus the cost of the confiscation of products. In this strategy, the counterfeiters are rapidly back on the market after a few years behind bars. Sometimes, they are immediately replaced by a new counterfeiter.

2.1.3 Protection brand strategy through a market approach

The aim is to put counterfeiters out of business by creating the market conditions which force them to stop their activity or to modify their line of action.

The main objective is to reduce or wipe out the demand for counterfeit products. The consumers are often widely made aware of the risks they run when buying fakes. This process often leads to communication campaigns where brands and governments try and make the consumer feel guilty. Very few communication campaigns are organized in a positive manner by showing the consumer the benefits of buying a genuine product. Indeed from a marketing viewpoint, a consumer knows how to choose between two brands proposing competing products by comparing the criteria of cost, quality and service. A counterfeiter can have two types of positioning on the market:

- Produce a much less expensive copy, clearly indicating that the product is a fake one. In this case, the consumer voluntarily buys a product of which the cost, the quality and the service are different. He/she would thus be in a position to buy the same product if it were of a different brand.
- Produce an identical copy with a similar or slightly inferior cost. In this case, the consumer is misled by a similar product which is not of the brand he/she believes. There is thus very little interest for the consumer to buy this type of counterfeiting. If the consumer has the possibility to distinguish the real product from the fake one, he/she will not buy this type of counterfeit product.

This strategy involves the implementation of necessary elements for the consumers to know that they are buying an authentic product. This marketing strategy is the only one which produces lasting results in the long term since it leans on assimilation by the consumers of the intrinsic values of the brand (know-how, quality, guarantee, and security).

In order to reduce the development conditions for counterfeiters on the market, the brand must implement a marketing strategy which helps the consumers to choose the authentic products.

This marketing strategy requires the implementation of a security technology with the adequate communication to help consumers to differentiate the real products from the fake ones. In this strategy, the chosen technologies must be detectable by the human senses (overt or semi-covert) in order to be controllable by consumers without any specific tool.

2.1.4 Government lobbying

The brands must work together with the governments and the brand protection associations in order to create the adequate legal conditions for the defense of the brands.

Legislation

The governments must create adverse legal conditions for counterfeiters by applying heavy legal sanctions to any production or distribution of infringing products. The legal toolbox must enable a better defense of the brands whilst at the same time deterring the counterfeiters. It must also deter consumers from purchasing counterfeit products.

Communication campaign

In partnership with consumers associations, the brands must explain to the consumers the negative impact of counterfeiting. The consumers must be aware of the risks they run when buying counterfeit items.

Custom controls

The brands must lobby governments in order to induce customs offices to act against the circulation of counterfeit products. Those offices must be made aware and trained to increase their efficiency in the research of counterfeit products.

2.2 Setting up a strategy against infringements on intellectual property

2.2.1 The stages of implementation of the strategy

First of all, in order to set up a global strategy against counterfeiting, one needs to consider two important stages:

- The protection of the domestic market of states
- The protection of export markets

2.2.2 The protection of domestic markets

The first measure must relate to the setting up of a system allowing the control of the flow of incoming products circulating on the national territory. To this end, the brands and the public authorities must build an information system which permits to follow and control a product at anytime and anywhere on the national territory.

This information system is distributed among the brands and the State for use the various potential inspectors jointly chosen by the brands and the State. This system enables the collection of data, their analysis and the information on the risks of counterfeiting. It also enables, according to the demands of the brand, to release a set of information which allows an efficient control of each of its products by chosen inspectors. This tool is a platform bringing together interconnected systems exchanging information to combat counterfeiting. This platform is relevant insofar as it is available to a large number of inspectors.

Indeed, in order to obtain important feedback of information on circulating products, it is necessary to involve a maximum number of inspectors in the supply chain and to resort to the natural actors of the distribution, the sale sector and the purchase of products:

- Consumers
- Sellers
- Wholesalers
- Carriers
- Customs officers
- Law enforcement officials
- Representatives and inspectors of the Brands

In a pragmatic manner, since it is impossible to systematize controls and to have a complete follow-up of all circulating products in real time, the solution we offer is to make available to all inspectors via this platform the whole set of decision criteria which aim to identify the risk flows, the elements which enable to decide on the authenticity of products and of associated documents (customs documents, delivery slip, guarantee slip, certificates).

Therefore, when a product is introduced in the supply chain on the national territory, it must be possible to manage and verify it through this information system.

The marketing of these products implies that the brand informs the various categories of inspectors via the platform. Amongst this information are the name of the product,

the international code of the product (GTIN), the international code of the manufacturer (GLN), the serial number of the product, its description, the authentication elements used as well as the control procedures, the place of production, the point of entry on the foreseen territory for those products and their final destination. In order to control the circulation of the information, the brand defines the accessibility of this information for each category of inspectors. When it comes to information intended for the law enforcement officials, the brand and the authorities jointly define the range of information which must be made available to guarantee the security and health of citizens.

In this way, the platform allows the gathering of information on the location of a certain number of products and their status through the controls which are carried out (entry on the territory, arrival into the supply chain, on the sales outlet, sale to the consumer). The information system analyzes the data resulting from these controls to signal inconsistencies. If such inconsistencies are detected, tighter controls involving authentication solutions operated by the brand will be carried out more intensively.

All control information is fed back to the brand to inform them of the location of the control, the identification of controlled products and the result of this control whenever possible. This way of proceeding allows a subsequent analysis by the brand of control anomalies noticed which will make possible an assessment of the potential risks and performances of the authentication solutions implemented by the brand. The efficiency of the system rests on the feedback of information collected through all controls. The number of controls thus has to be increased to raise the level of control and knowledge of product flows whether licit or illicit.

It is also important to understand that the later the products are being controlled in the chain the better the detection of counterfeit products. Indeed, the aim of counterfeiters is to bypass distribution networks to sell their products as soon as possible to potential buyers thus avoiding all upstream controls. The sales of counterfeit products through the internet are the best evidence of this practice. It is thus essential to encourage consumers to check the products they buy. We believe that the consumers are the most important inspectors in the chain. The more one moves away from the consumer towards the production point, the more the probability of finding a counterfeit product decreases. On the other hand, there are compulsory crossing points like borders or customs which are the strong link in the control system.

This leads us to recommend the following principles:

- Incite as much as possible the control of products by consumers.
- Increase the efficiency of border controls through the identification of risk flows and through straightforward authentication elements.
- Make compulsory the follow-up of parcels from the acceptance at the consignor to the delivery at the consignee.

Such a system requires the setting up national and international standards for exchanges of information such as EPCIS and GEPIR of GS1 for the whole range of authentication control activities of products.

The elements which constitute the control solution to be implemented on the products, primary and/or secondary packaging, have to be defined. The presence of at least one identification element to allow the research of traceability information and

at least one authentication element to allow the authenticity control of the product is necessary. In view of the previous comment, we advise the use of one element overt or semi-overt for consumers.

In the future, it will be possible to use the results of the working groups ISO TC 247 and PC 246 as a reference for the definition of these elements.

A set of legal measures will have to be adopted to sanction the counterfeiters in an efficient manner and impose to the brands a minimal protection of products in order to avoid the proliferation of counterfeit products.

The protection of the domestic market will have to be introduced in a progressive manner in order to protect first of all the national brands before the import brands. This process will be the first measure of protection against counterfeiting.

2.2.3 The protection of export market

In order to extend this protection to export markets, an accompaniment program will have to be operated for the setting up of similar systems in target countries. The duplication of the system and its interconnection with other international systems allow an increase in the efficiency of controls and in the fight against counterfeiting for the countries which adopt the global system against counterfeiting.

Each national system connects to other national systems to obtain information from exporting brands to the country which carries out the control. For national brands, the system is local.

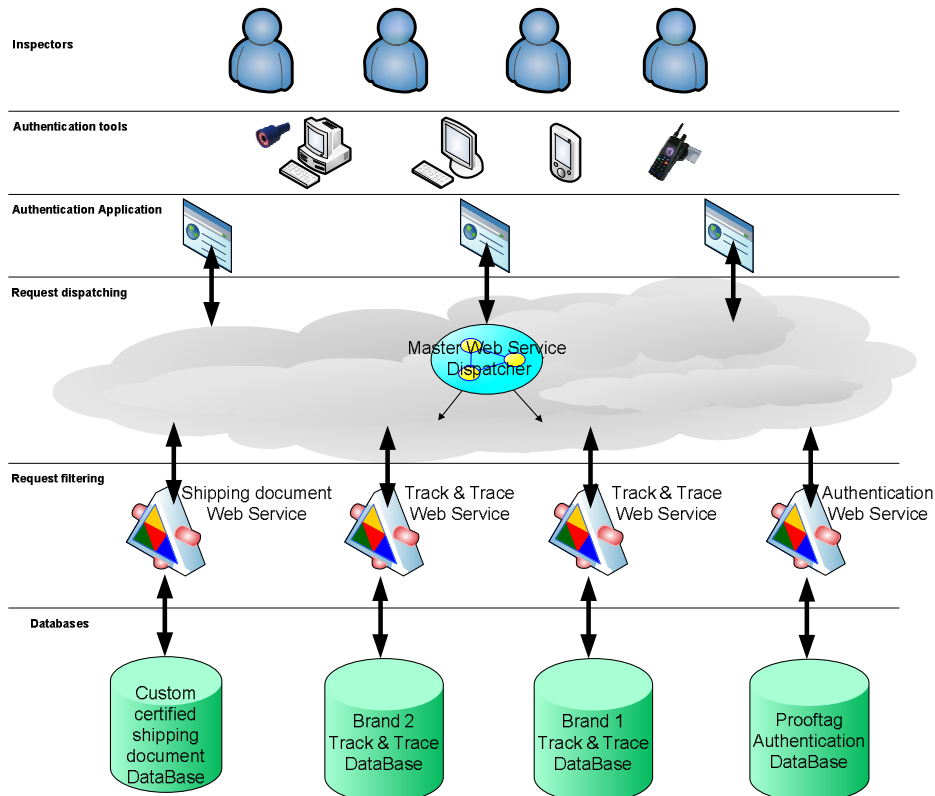
2.2.4 A trustworthy platform to facilitate the authenticity checking of products

The services of the platform are organized around a joint system which operates on the Internet.

- The access control portals for inspectors lead to the network through a Master Web Service dispatcher. The users of these portals are identified and authenticated to guarantee a high level of confidence.
- The authentication services of the brands identify the inspectors using the system and handle their requests in accordance with their policy: validation of serial numbers, verification of validation frequency of a same serial number, publication of the elements which allow the detection of frauds, connecting with the agents of the brand.
- The GEPIR (directory of companies) which allows the validation of the identity of the company and the ONS (Object Naming Service) which permits to redirect requests to the website of the brand if it has decided to make its service accessible on the system thanks to its GTIN.

The control access portals and the authentication service of the brands are identified by one single code, for example the *Global Location Number*. Interoperable interfaces, some of which are standardized and others in the process of being defined enable those various services to interoperate in a transparent manner.

2.3 Architecture of the proposed system



2.4 A complete authentication solution for products and documents: the BubbleTag™

2.4.1 The ProofTag solution

ProofTag's BubbleTag™ is the only system that is able to provide both producer and the consumer with absolute proof that an object or a document is authentic and not a perfectly imitated copy.

A BubbleTag™ is easily affixed by the producer onto any product or document at the origin.

Anyone is then able to confirm the authenticity in seconds by using something as simple as a mobile phone or a computer with an Internet connection to www.prooftag.com or a dedicated web portal.

Moreover, ProofTag works with standardization institutions and major actors in the field of traceability to define the interoperability of the authentication services in already existing systems. For example, ProofTag has developed an authentication service by BubbleTag™ within the working group "EstCeAuthentique" set up by GS1 in view of providing various inspectors with the means of controlling the authenticity of products.

2.4.2 The BubbleTag™ Technology



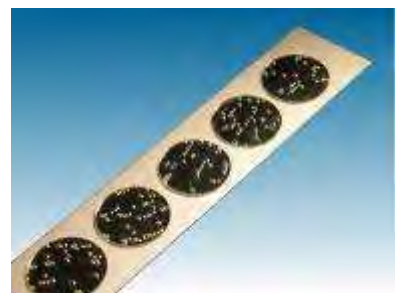
ProofTag has developed a range of middle to very high security solutions to fight counterfeiting and forgery.

ProofTag's fundamental technology is the BubbleTag™, a top and visible security solution that is able to certify the authenticity of products and documents of all kinds. We believe it to be the only solution that is totally **impossible to reproduce, even by its own manufacturer**, and that can be controlled both visually

and electronically. BubbleTag™ technology is already in use to secure a variety of documents and products.

The technology concept relies on the use of a random phenomenon which appeared during the development of an electronic manufacturing process involving the gluing of electronic devices to circuit boards during 1999. Tiny bubbles, which were a defect lead to a decision to abandon this particular assembly process, and became in fact a real breakthrough when used in a very different application. The phenomenon leads to the development of "tags" or capsules within which bubbles are spontaneously generated during the hardening process of the material. The completely random distribution of the bubbles makes it possible to use these tags to differentiate products, and therefore to authenticate them.

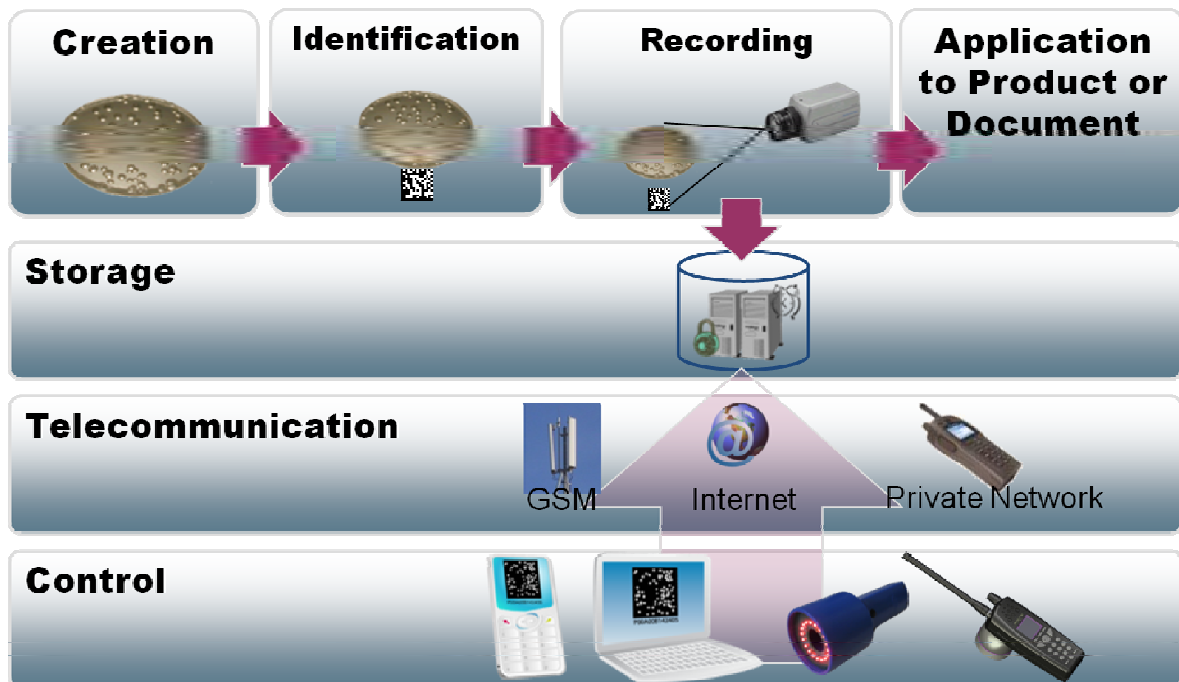
It is very important to understand that no one is able to decide where the bubbles will appear in the material, or what will be their shape or dimension. This is a totally random process under the control of nature alone. The pattern does not hold any predefined information such as a barcode. One can only record the results of the process, but not interfere with its creation. The BubbleTag™ alone does not have any value. However



it needs to be made part of a chain of technology in which it acts as the physical element used to authenticate all kinds of products.

2.4.3 Working principle

The working principle can be compared to the one of biometric technology without actually competing with such technologies.



- Creation – BubbleTags™ are generated randomly
- Identification – Each BubbleTag™ receives a unique identification number
- Recording – Each BubbleTag™ is recorded with an optical system in association with its unique identification number
- Storage – Each BubbleTag™ is stored into a database before receiving the description of the product or document to authenticate
- Application – Certification of each product or document is made by the application of the Bubble Tag™ and its activation in the database
- Controls – Authentication of the product or document is now possible through two different modes :
 - Visual control
 - Electronic control

2.4.4 The control

The safety level of security technologies used for the protection of brands and documents is often in inverse proportion to the ease of control.

- Visible solutions are easy to check but not reliable due to frequent imitation.
- Expert technologies are very secure but they may require a laboratory analysis to be controlled.
- Digital technologies cannot be controlled without a reader.

The BubbleTag™ presents a very high security level whilst offering numerous control possibilities. The BubbleTag™ is the first technology which associates fiduciary security to digital security.

ProofTag proposes a range of varied and efficient control means in order to adjust to the needs of applications.

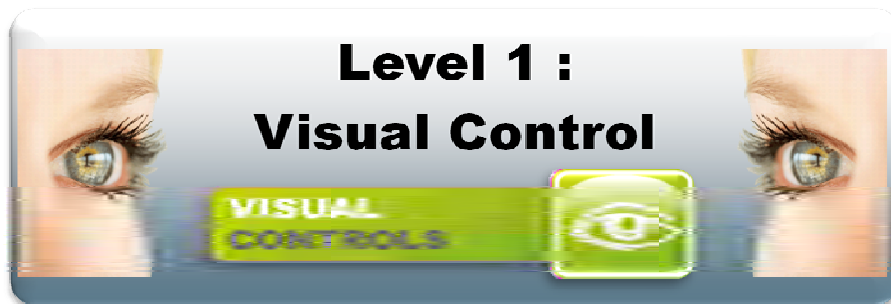
The BubbleTag™ can be authenticated through visual or electronic comparison with a previously recorded reference. This reference will be an image or an electronic signature according to the type of control.

According to the needs, two types of control are available:

2.4.5 Visual control

It is possible to control the authenticity of a BubbleTag™ through a visual comparison between the original BubbleTag™ and its recording. This is a straightforward, rapid and reliable authentication act of the document or certified product.

Advantage: requires no specific tool.



2.4.6 Electronic control

The reading systems allow a formal authenticity control of the BubbleTag™ in comparison with a reference database. This 3D optical control is extremely straightforward, reliable and indisputable.

Advantage: absolute reliability, traceability of the control guaranteed.



2.5 The Product

The BubbleSeal™ is a security label. It contains:

- ✓ A data matrix used as a document identifier.
- ✓ A tamper evidence base film avoiding reuse of the seal.
- ✓ A bubble tag containing a 3-dimensional, unique and non-reproducible tag, used as a document authenticator.



3 General Information

3.1 Activity:

Security solutions to combat document forgery and counterfeiting.

3.2 The company

ProofTag is a technological company which develops very high security solutions around one priority technology: the BubbleTag™.

The high level of security and innovation of ProofTag solutions mean the company is a reference in today's application sectors.

The company is growing by developing global or local partnerships with integrators or licensees to spread its technology on new markets.



3.3 Your contact detail

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