Creating Trust in ID Documents

An ITW Security Division White Paper – February 2017

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Overview

This latest ITW Security Division paper focuses on the issues faced by our industry today - specifically in the need to create trust in our ID documents and the challenges & threats that both governments and the ID industry as a whole face for the future in delivering this.

Security Document Domain

What are the threats we are facing?

↗ Terrorism	↗ Globalization	↗ People travelling	↘ Frontiers = less control

Clear need to identify individuals

Our industry today is at a pivotal point as the global ID market faces the demand of meeting the, sometimes contradictory, challenges of dealing with:

1) *the existence of traditional ID documents (mainly paper based)*
2) *new technologies entering the market, in particular polycarbonate (PC) ID documents.*
3) *the global increase in counterfeiting and fraud that threatens everything we are doing to build security into our ID documents*

Given all these, now is the ideal time to take a step back and to think as one, both as members of government institutions and industry, about the best route forward for our future security & ID documentation.

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Environment – Governments

Government agencies and document issuers have been faced with an increasingly complex situation in recent years. On the one hand they:

- *are under extreme pressure to ensure their documents meet global standards*
- *need to provide documents that are more secure and utilise new technologies while anticipating future requirements*
- *must ensure that ID documents are verified quickly and effectively at border control*

However, on the other hand they must **also reassure their citizens** because:

- *there are more diverse and sophisticated security techniques available*
- *forged or counterfeit documents are increasingly difficult to detect*
- *would be counterfeiters are becoming more active and inventive*
- *they need to be innovative whilst at the same time avoid any risk*

As such it is essential that a balance is found between existing validated security techniques and the introduction of new innovations. The existing solutions are proven and therefore offer little risk but they are not always well prepared against future fraud and counterfeiting, whilst new solutions do not offer a proven background but may ultimately be better prepared for future fraud attempts. As well as meeting these challenges it is essential that any ID document has a 15-year lifespan, is cost effective and above all secure.

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Environment – ID Industry

The situation for the ID industry's suppliers and manufacturers is similarly demanding, with the need to deliver effective and innovative ID documents that meet the needs of Governments around the world. Each supplier is under pressure to sell their respective technologies and products within a competitive market. However, this drive for competitive advantage through technology and unique products presents considerable challenges to a market looking for interoperability and standardisation as a means to drive cost reduction and maintain the effectiveness of new security systems.

The ID industry therefore must find a compromise between their own business priorities and providing off the shelf 'standardised' products, all whilst helping the customer find something innovative and that can help to stay one step ahead of the counterfeiters and the changing market demands.
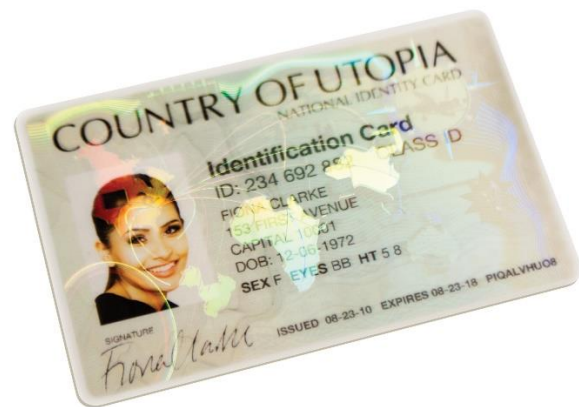

VS.

Security Documentation – A World of Formats!

The wide variety of formats of ID documentation across the globe, makes our job even more challenging. From passports, ID cards and driving licenses to administrative documents which are often not as secure, but which critically allow the issuing of other ID documents such as birth certificates, death certificates and marriage certificates, etc.

ID Documents

- *Passports*
- *ID Cards*
- *Driving Licenses*

Administrative Documents

- *Birth Certificates*
- *Death Certificates*
- *Customs Documents*
- *Weapon Permits*
- *Work Permits*

All these ID and Administrative Documents are focused on the country's citizen and they enable the holder to communicate with their local, regional and country administrations. They are also necessary to open bank accounts, enrol in schools, register in administrative areas, obtain Driving Licenses, etc.

These documents are often critical in creating the connection between citizens and their governments.

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Trust – Our Role & Responsibility

Creating trust in ID documentation is an essential part of any ID document program, so what is our role in ensuring this, what do we need to do?

There are two elements to creating trust; the trust between countries globally and the trust between individual countries and their citizens.

Between countries the goal is to create a trusting relationship where ID documentation is easily identifiable and above all secure. As an example, in the case of travel documents, countries need to be confident that the documentation presented to them, to allow people to cross their borders, is genuine and authentic. When this is the case relationships between countries are strong and this can help commercial exchange and trade.

Between the country and its citizens there must also be a high degree of trust so that people have confidence in using their administrative documents that have been issued by the state. More and more these day's citizens demand greater security together with the need to make their lives easier.

This includes:

- *E-government Applications*
- *Banking*
- *Avoiding Identity Theft*

Citizens also want to create a sense of pride in their ID documents giving a favourable impression of the country both internally and externally. To be able to do this requires:

- *Technological Know-How – Using innovative technologies to show advancement*
- *A Balance of Contemporary vs Tradition Materials & Features*

And finally one of the main goals is to ensure that the documents are used to control borders efficiently and effectively in the fight against crime and terrorism.

Trust – Loss of Trust

So whilst it is essential that ID Documents create trust, this trust can easily be broken in a number of ways including the falsification and/or counterfeiting and the obtaining of ID documents through fraudulent means (FOG- Fraudulently Obtained Genuine).

Falsification always involves a real document which is modified by adding or removing elements whereas counterfeiting is the complete or partial reproduction of the ID document itself.

Of growing concern is the issue where genuine ID documents are obtained via fraudulent means, for example, using counterfeit or forged administrative documents such as birth certificates. This has led to administrations now focusing on this area by adding both additional security in the documents themselves and the system as a whole.

Trust – Excess Trust

We can also have a tendency to assume that our ID documents are authentic and trustworthy often after just a cursory glance. This "excess trust" can mean that falsified or counterfeit documents go undetected and people are overly confident in their document's authenticity.

This threat is magnified by the fact that counterfeiters and fraudsters are becoming ever more sophisticated, creating falsified documents which are particularly difficult to identify. By their nature it is very difficult to quantify the number of counterfeit documents in circulation and this in itself is particularly worrying.

It is estimated in France for example, that 500,000 – 1,000,000 of the 6,500,000 biometric passports in circulation are not authentic, having been obtained on the basis of fraudulent breeder documents[1].

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[1] http://www.leparisien.fr/faits-divers/plus-de-10-des-passeports-biometriques-seraient-des-faux-19-12-2011-1775325.php

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The Diverse Nature of ID Documents

As highlighted, there are a wide and varied combination of ID document formats in circulation globally – from traditional paper based to new RFID technologies – each with their advantages and disadvantages.

Traditional ID documents are typically manufactured using security or synthetic papers with the addition of security laminates. The advantages of these documents include:

- *A large variety of paper and/or security laminate options: embossing, guilloche, holographic features, security print, reactive inks and papers, security adhesives, etc…*
- *A large variety of print and personalisation techniques – laser, inkjet, sublimation, etc...*
- *Specific technologies for security papers, such as customisable watermarks and intaglio print*
- *The protection of personalized data by the use of a security laminate*

Similarly, these documents can be seen as:

- *Not being easily or cost effectively combined with embedded technologies such as RFID*
- *Potentially being attacked through the removal of the top surface laminate*
- *Having an "old school" image*

In comparison the new ID document formats, which are made with plastic based materials such as PC or PET, have their own advantages and disadvantages. The advantages include:

- *The structural cohesion of the whole document*
- *Variable data can be directly engraved into the plastic material*
- *No need for a laminate layer*
- *They have a more modern look and feel*
- *Easier integration of electronic technologies (RFID)*

Whereas their disadvantages include:

- *Cost*
- *The reduced variety of technologies and features available*
- *Fewer options available in terms of printing and personalisation*

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The Diverse Marketplace Goals?

So what are our goals in this diverse ID marketplace? Given the varied nature of ID documents globally there are clearly a number of objectives that we need to set and adhere to. Firstly, it is extremely important that we continue to maintain and promote the wide range nature of security features, devices and technologies available and we avoid "standardisation".

Secondly we must strive to stay one step ahead of fraudsters and counterfeiters as they develop their new techniques. By monitoring fraudulent developments, we are more likely to anticipate the next set of required features and technologies to counteract the advanced counterfeits.

And so, as things are getting more and more complex, there is clearly a NEED for EXPERTISE.

Expertise is Essential

As an industry we must work together to help develop and reinforce this need for expertise. Governments must consider security in a holistic way and work towards a complete secure chain of all ID documents, from birth certificates, through to the issuing of travel documents such as passports.

For manufacturers we must ensure we know and understand the different products, techniques, materials and security features available across the market, together with their relevant strengths and weaknesses. Only through this all-encompassing approach will we be able to anticipate potential new fraud techniques and then drive our R&D departments to develop the technologies and/or features to combat such approaches.

Together as governments and manufacturers we must share our experience and expertise to avoid repeating errors of the past and continue to adapt to the newly discovered methods of fraud or counterfeiting.

Of course it goes without saying that while doing this we must respect each other's confidentiality & ethics. In a globalised market it is no longer possible for us each to work effectively by ourselves so we must find a way to respect confidentiality but at the same time join forces to create synergy and research groups. Together we can achieve far more than as individuals.

WE ARE ALL RESPONSIBLE FOR MAINTAINING THIS TRUST

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A good example of this trust has been the recent work done by ITW Security Division and an Asian Government, working together on a specific new project for paper.

ITW Security Division, in close collaboration with the client, has developed inks to print a full colour image, visible only under UV light (Imaprotek®), on a customised security paper supplied by the client. This ITW Security Division printed product (PaperProtek™) can be used to produce secure ID documents such as:

- *Birth Certificates*
- *Diplomas, Certificates*
- *Visas*
- *Passports*

As an additional option, any personalised or variable data can then be protected by a printed and/or holographic laminate.

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About Us – ITW Security Division

The ITW Security Division was formed in 2012 through the coming together of the management teams, technologies and resources of Covid®, Fasver® and Imagedata™. Leveraging the strengths of these brands, the ITW Security Division today offers the secure document market a single source supply for high security laminate documents and dye diffusion (D2T2) ribbons.

As an independently operated division of Illinois Tool Works Inc. (ITW), a Fortune 200 company, we have the financial resources necessary to continually invest in new technology, research and development. This global footprint and view has enabled us to supply products to more than half the world's countries from our secure facilities in the UK, France and USA.

At ITW Security Division we understand that the foundation for secure materials begins with highly secure manufacturing facilities. We manufacture products from start to finish in one of our secure facilities enabling us to meet the 'under-one-roof' production requirements demanded by many governments. Our products and technologies driven by our Covid® and Fasver® brands have developed a global reputation for highly advanced security solutions. Overt, covert and forensic security technologies are customised to the specific requirements of each document program to enable the widest combination of personalisation methods and substrates for passport and ID Card issuance worldwide. The companies within the security division include:

ITW Covid Security Group Inc was one of the world's first holographic and OVD manufacturers and now has over 25 years' experience. Located in New Jersey USA, the company is ISO14298 & NASPO (North American Security Products Organisation) accredited and manufactures all of its products under one roof, from holographic design and origination through to shim production, embossing, metallising, laminating, die cutting, converting and packing.

ITW Imagedata is a global manufacturer of consumables for the Card industry located in the UK, specialising in the design and manufacture of D2T2 (dye sublimation) ribbons that we supply exclusively to OEM Card printers. The company is ISO 9001 and ISO 14001 certified.

Fasver® S.A.S.U. is a global leader in the design and production of security products for the protection of personal data on identity documents including Passports & ID Cards. Located in Montpellier, France, the company is ISO & Intergraf accredited and their unique authentication solutions have been protecting documents for over 25 years.

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