

## CRISIS-FIT DOCUMENT SYSTEM

By **Stephan D. Hofstetter**  
Managing Partner  
SECOIA Executive Consultants Ltd

*Every individual has the right to have a certified identity. Governmental bodies and NGOs have the task and challenge to provide for well-managed processes and find suitable solutions adapted to the various situations such documents face at point-of-issue. Conventional approaches often cannot satisfy the extraordinary demands.*

### Keywords:

Camp registration |  
Emergency documents | Vital  
records | Birth certificates |  
Decentralized Issuance |  
Power management |  
Security-Seals | Synthetic  
paper | Turnkey solution

### The challenge

Identity and travel documents are, depending on where you operate, issued in clean, well connected offices. And the document bearers will be able to take care of them during the regulated service life. However, this often isn't the case. Globally over 1 billion people are forced into migration, due to natural disaster or human made crisis. A vast number of issuing bodies and their dependent population cannot rely on such ideal circumstances. When it comes to forced migrants and disaster management, the time and supply components become even more challenging. Conventional approaches are highly reputable, but often are not truly suitable: The environmental situation, the logistical and issuance challenges as well as budget constraints require a better solution than conventional paper or cards.

### Traditional solutions

Paper based documents are, in most cases, either printed on office paper (non-secure, non-durable), security paper (better security, better durability), and sometimes on plastic sheets (non-secure, durable). For use-cases that need to be both secure and very robust, the most popular choice is moving onto a card.

This has an impact on most of your workflow, starting with a multitude of consumables (i.e. cards, print ribbons, holo-patches etc.), and the infrastructure for issuance. In the last few years, various cases have emerged where the system requirements and the budget involved were underestimated. As a result, both goals of longevity

and security are often missed when the budget is too limited to do it right.

### Understanding the boundaries

For boundaries, that cannot be reasonably and reliably changed, it is important to have them clearly spelled out and have system-options matched against them. In the case of refugee and crisis handling, some typical boundary-related requirements might be:

#### Environmental requirements

- Operational with sporadic or unreliable power-supply
- Issuance capable to operate with limited or no WAN-communication
- Documents need to be resilient to extreme dirt & humidity as well as rough handling.
- Consumables need to be forgiving under challenging storage & operation conditions

#### Issuance process requirements

- Key secure components need to be split and separately stored
- Issuance process needs to be managed, separating competences and authorities
- Capable to handle clans as well as individuals in various stages of identification

#### Budget

- Balancing Budget limitations and making sure objectives are being met
- Balancing security mechanisms and the function of the document, in order to avoid hidden costs arising later in the process



The image visualizes the principal modules of such a CROC-system. It emphasizes the importance of clear segregation within the process, competences and storage. It also shows the various energy-dependant components and the possibility to run over batteries and Uninterruptable Power Supply (UPS) infrastructure.

Such a custom fitted, high performance system would consist of a polymeric paper, mixing synthetic fibres with pulp and then processing it on actual paper machines by adding embedded security features. Security features as you would expect from secure document paper combined with robustness in most severe conditions are serious characteristics. For the printing you

An important aspect to consider is the logistical security: how can stocks be secured and how can the issuance process be protected from single points of infiltration. Avoiding having blank documents already carrying most security features, these should be spread out into various phases of issuance, both physically and by authorisation to access and use. Thus, only the combination of multicomponent physical and digital elements will finally constitute a rightful document. Replacing the widespread chops or stamps by highly secured and trackable security seals rounds off such a concept.

### "The environmental situation, the logistical and issuance challenges as well as budget constraints demand for a better solution than the conventional paper or cards."

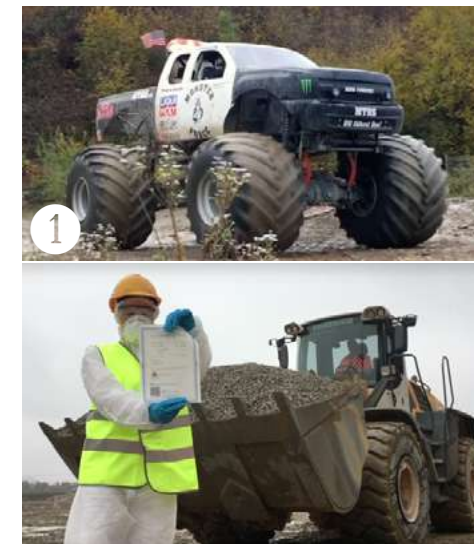
most likely can rely on your current security printing infrastructure. Specific inkjet printers are now available, capable of deeply linking with the substrate. The data ranges from the typical visual data to machine readable encrypted QR codes. Select solutions offer to print the data additionally in UV fluorescent ink, adding additional layers of security in the personalization at point-of-issue. Where needed, the issuance infrastructure is complemented by buffering power supplies, allowing for continued production during a power failure of several hours.



1 Testing of the document "to the max" with monster-trucks and 26 ton caterpillars.

2 Personalization with Ghost Image in UV365nm

3 Security seal, individually numbered



### About us:

SECOIA Executive Consultants Ltd and its solution partners have developed a comprehensive system capable to perform in very challenging environments. **For more information and videos please visit: <https://croc.secoia.ltd>** (registration required)

SECOIA Executive Consultants is an independent consultancy practice, supported by an extensive global network of experts with highly specialized knowledge and skills. We work internationally with senior leaders from government and industry to inspire new thinking, drive change and transform operations in border, aviation, transportation and homeland security.

### Contact

SECOIA Executive  
Consultants Ltd  
CH-8215 Hallau  
Switzerland

Phone: +41 44 586 70 11  
eMail: [id4africa@secoia.ltd](mailto:id4africa@secoia.ltd)  
Web: [www.secoia.ltd](http://www.secoia.ltd)  
Whatsapp: +41 77531 4070

### Solution partners:

