MRTDs and Border Control Solutions

Nikita Kolesnev
Regula Group of Companies

Paul Bester Engelbrecht
Veridoc (Pty) Ltd., South Africa

Charles Adesiyan
ITPS Ltd., Nigeria

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Developments about checking documents

Trends in development of new security features

Technical Aspects

Informatization

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Developments about checking documents

Globalization with mixture of positive and negative effects:

- dramatic ***increase in international travel and migration***

- ***rise of international crime***

- active ***extremist movements, terrorism*** activity

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Developments about checking documents

Circle of institutions involved with verification of identification documents is expanding

Traditionally:
- forensic laboratories
- immigration service
- police

Now also:
- consular service
- private laboratories
- airlines
- hotels
- banks
- attorneys
- insurance companies
- bars, liqueur stores

Number of users in organizations which traditionally control security documents is also growing

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Developments about checking documents

Number of falsifications in documents is growing.

↓

Variety of security features is increasing

↓

Verification of security features is becoming authority of many and therefore can't stay "magic" anymore.

↓

Need for equipment to use in operative conditions and on the forensic level.

↓

Need for interoperable multi-modular equipment combining hardware, software and reference systems

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Developments about checking documents

Document experts require more resources for qualified and well informed decisions:

1. reliable and easy-to-operate ***hardware***

2. multifunctional ***software*** to automatically verify documents, capture images, examine security features and compare them with trusted specimens

3. ***Databases or reference systems*** of travel documents specimens with comprehensive description of security features

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Trends in development of new security features

- Development of security features and their use in documents must be accompanied by creation of equipment to verify them.
- Need for unification of technical requirements to equipment controlling authenticity of documents.
- Cooperation between developers of security features and companies developing equipment to control authenticity of documents.

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Technical aspects

- Modular composition of specialized equipment allowing enhancement of functionality when used in combination.
- Automatic retrieval of data, its processing and analysis.
- Increasing sensitivity of document examination equipment in all spectrum ranges.
- Developing ability of equipment to detect various types of forgeries in automatic way.

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Informatization

- Classification of security features in documents.
- Development of reference systems, comprising description of security features in documents to provide verification in operative conditions and on the forensic level.
- Interoperability of reference systems with examination equipment.

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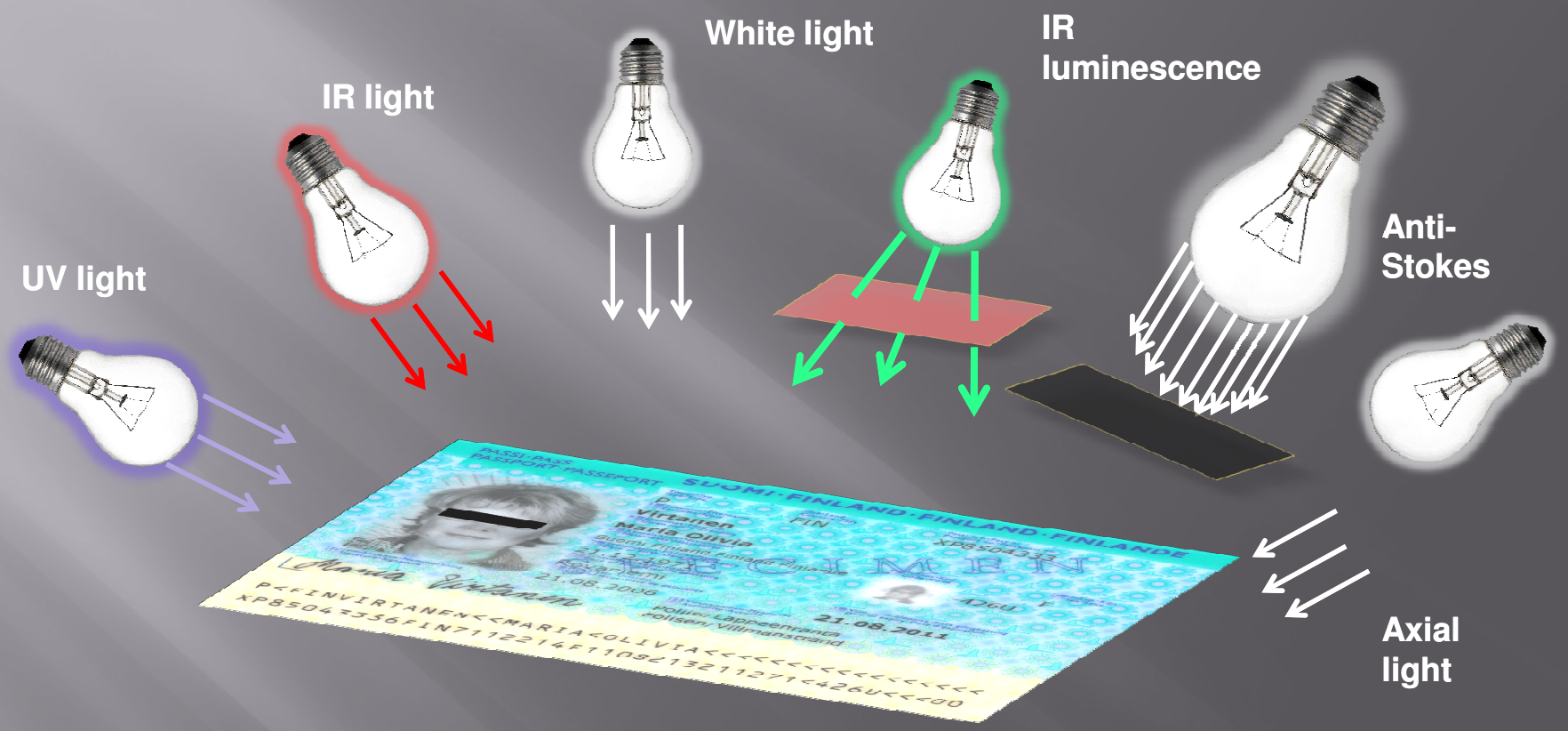
Automatic verification of MRTDs



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Automatic verification of security features

Visuals of automatic capturing of data page in various light sources

White (incident, top, side)

UV (with adjustable exposure)

Infrared

Coaxial

IR luminescence

Anti-stokes

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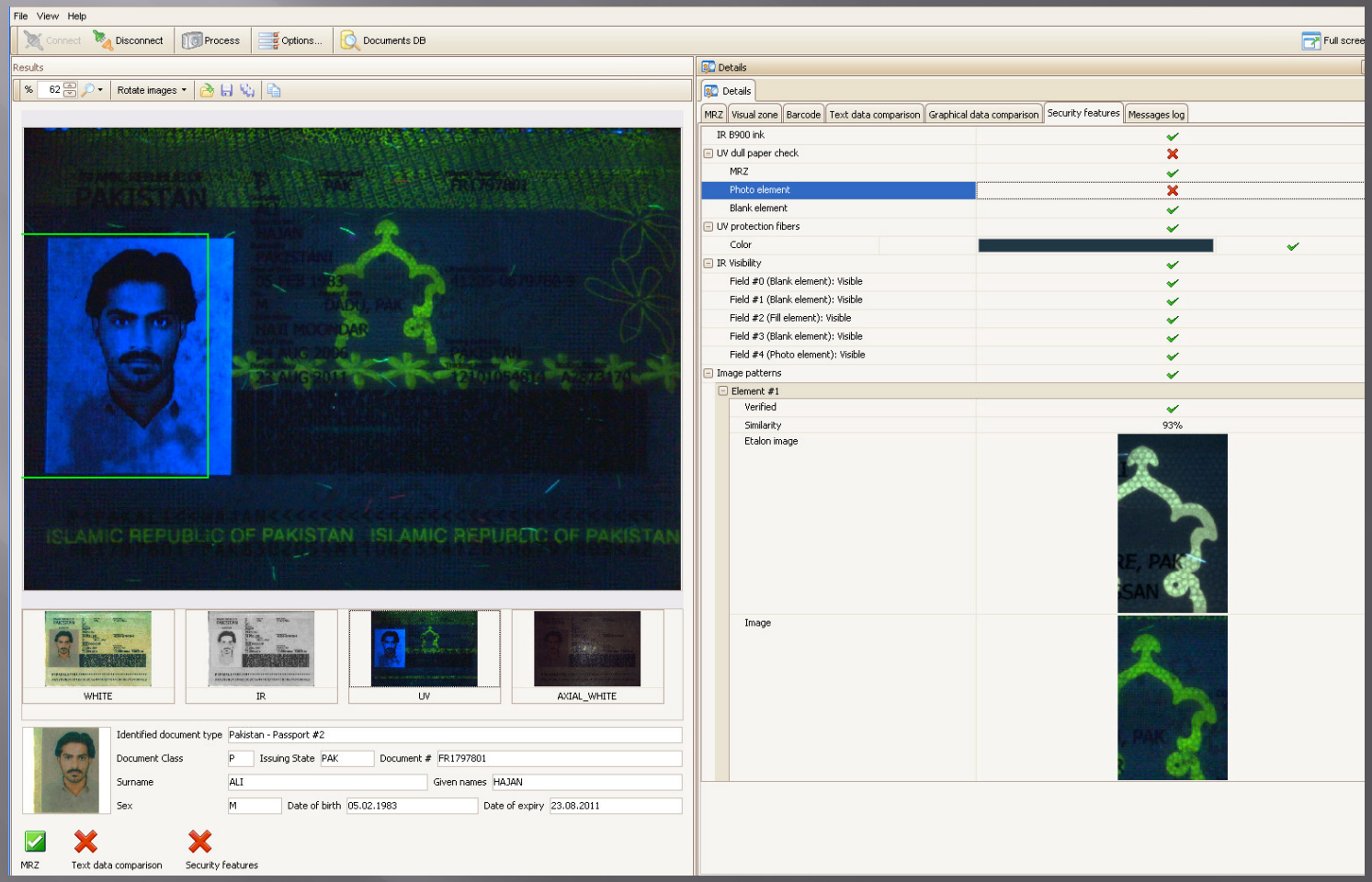
Automatic verification of security features

Checking luminescence of photo area in UV



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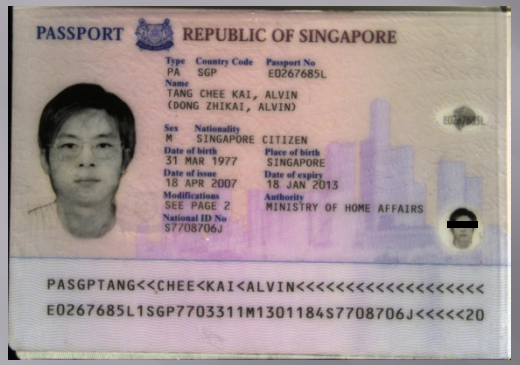
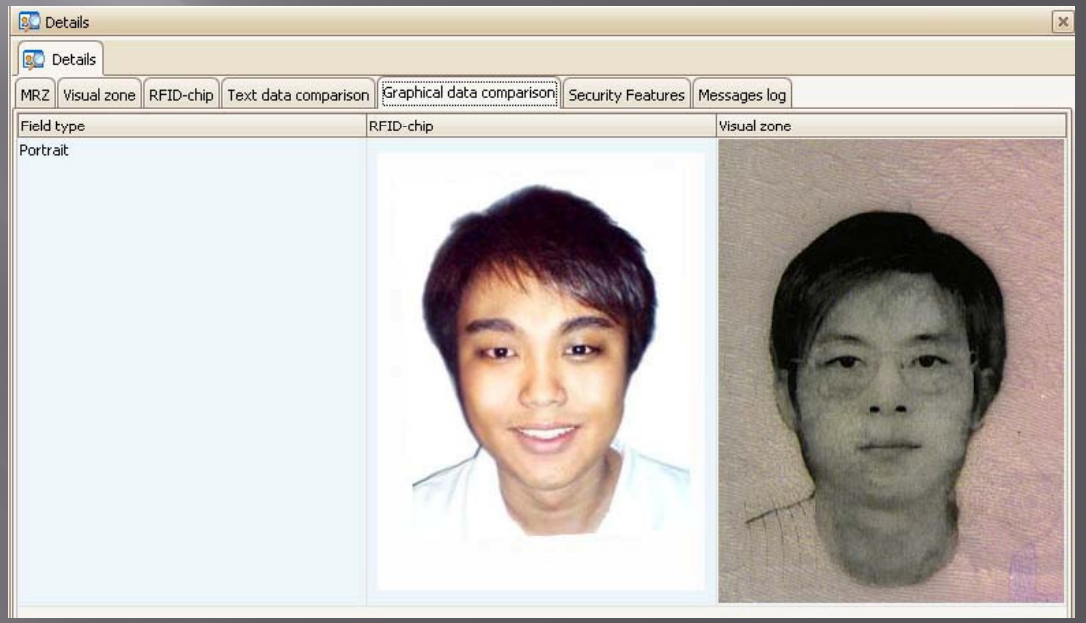
Automatic verification of security features

Comparing biometric data from RFID and Visual Zone





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Advanced security features

Anti-Stokes luminescence

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Advanced security features

Invisible personal information embedded in photos

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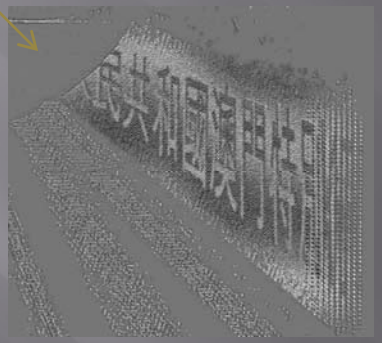
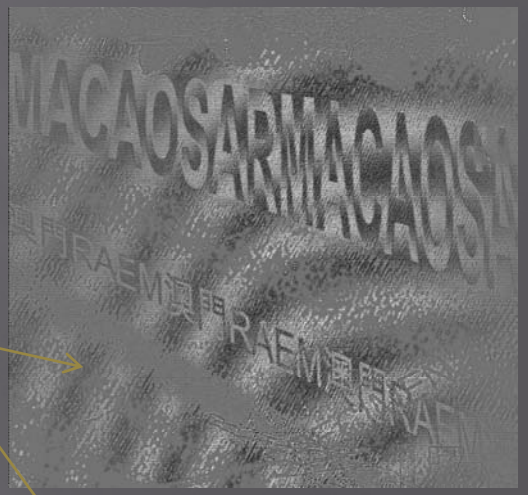
Advanced security features

Invisible personal information UV 365





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Advanced security features

Infrared Luminescence

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Document examination equipment

Magnifiers

Compact devices

Video spectral magnifiers

Document inspection units

Spectral Luminescent microscope

Video spectral comparators

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Automatic reading and processing of documents

Desk-top ID-1 size reader
Regula 7003 series

Desk-top reader
Regula 7004 series

Portable
Regula 8303 series

Mobile laboratory
Regula model 8304

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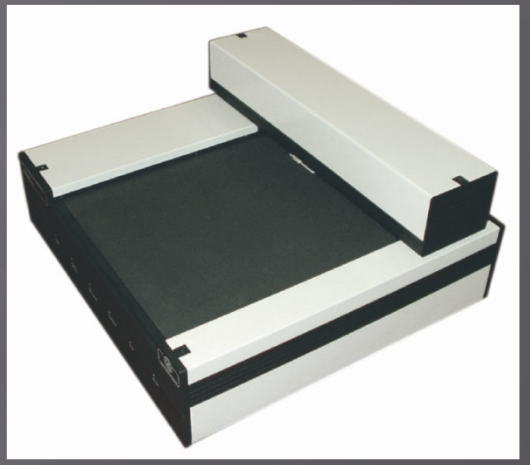
Special equipment

Inspection devices

Bullet speed measuring devices



Magnetic ink scanner

Magneto-optical device for VIN examinations

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Software and databases

VideoScope software
for obtaining, processing, comparing
and archiving images

Information retrieval systems:
PASSPORT, AUTODOCS, BANKNOTES

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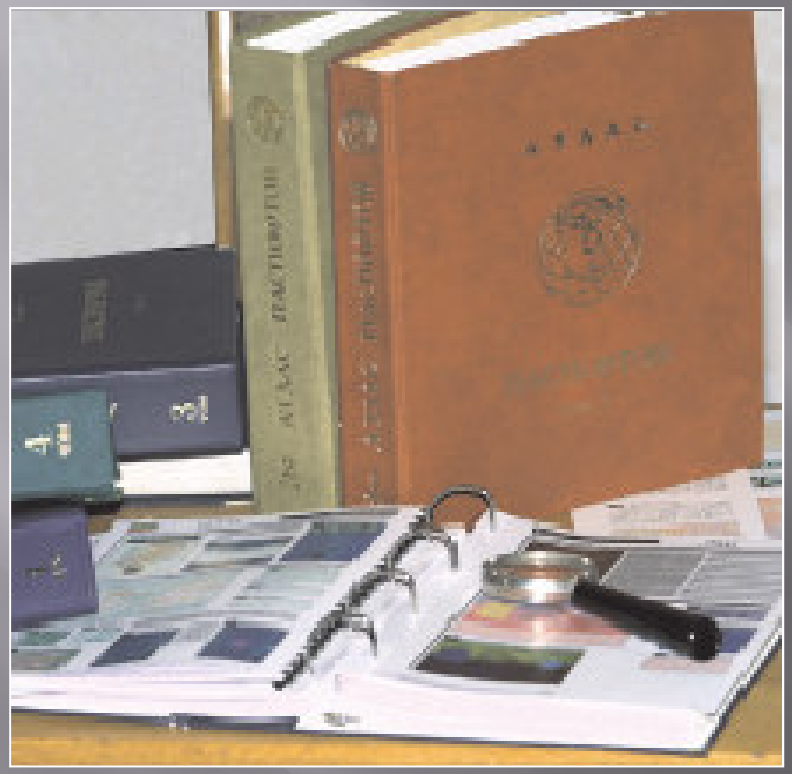
Printed edition



Atlas of Passport:
- **7 volumes;**
- **200 documents per volume**
- **1 page per document**

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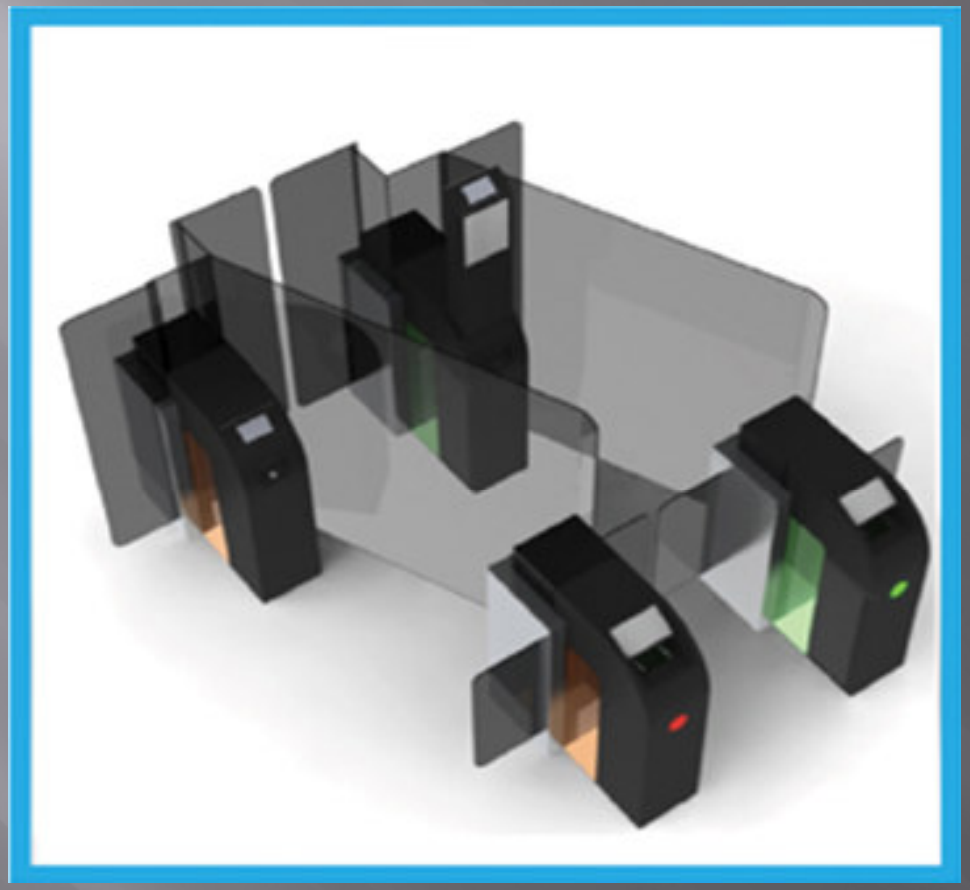
Automatic Border Control (ABC) Systems



vision-box
identify your world

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Training courses

- Document verification (basic and advanced)
- Document security features (basic and advanced)
- Passenger assessment
- Facial recognition / Imposters
- Questioning technics

Organized by Veridoc (Pty) Ltd. (South Africa)
Mr. Paul Engelbrecht
paul.engelbrecht@veridocsa.com

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Conclusion

Introduction of ICAO compliant MRTDs is not just a requirement but a MUST

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Thank you for attention!

Regula
Minsk, Belarus
nikita.kolesnev@regula.by

Veridoc (Pty) Ltd.
Pretoria, South Africa
paul.engelbrecht@veridocsa.com

ITPS Ltd.
Lagos, Nigeria
Charles.Adesiyan@itpsltd.com

www.regulaforensics.com