SECURE IDENTITY AND TRAVEL DOCUMENTS

ICAO MRTD SYMPOSIUM 2010 | MONTREAL
WIM TAPPIJ GIELEN

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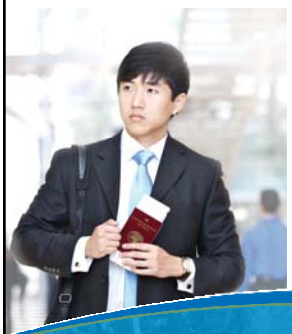
EVOLUTION OF IDENTITY DOCUMENT INDUSTRY



DRIVERS

- Regulation and standardization
- Globalization
- Security concerns
- E-Gov initiatives
- Emerging economies
- Technology maturity

CONSTRAINTS

- Economic downturn and costs of "e-technology"
- Privacy concerns
- Political cycles

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EVOLUTION OF IDENTITY DOCUMENT INDUSTRY

BEST PRACTICES

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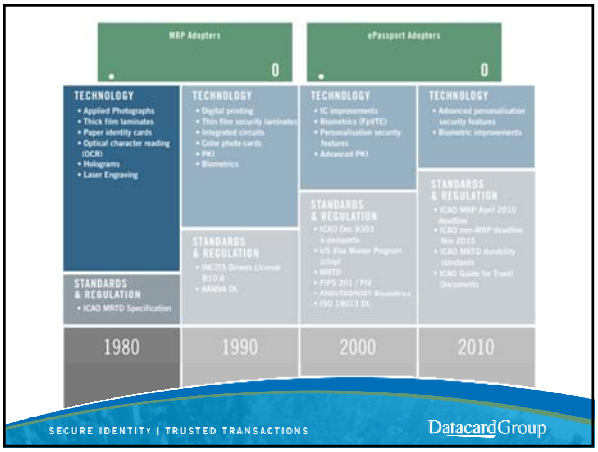

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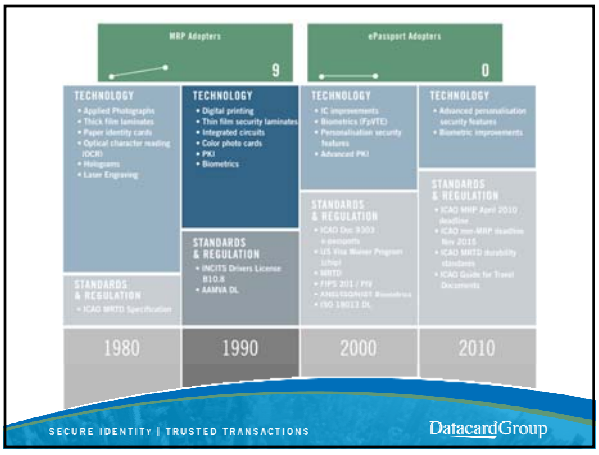

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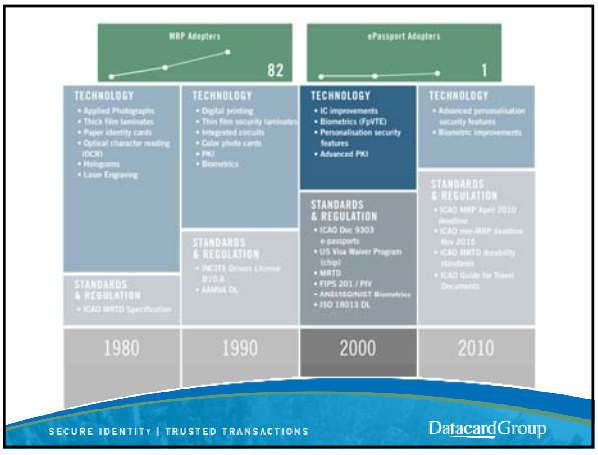

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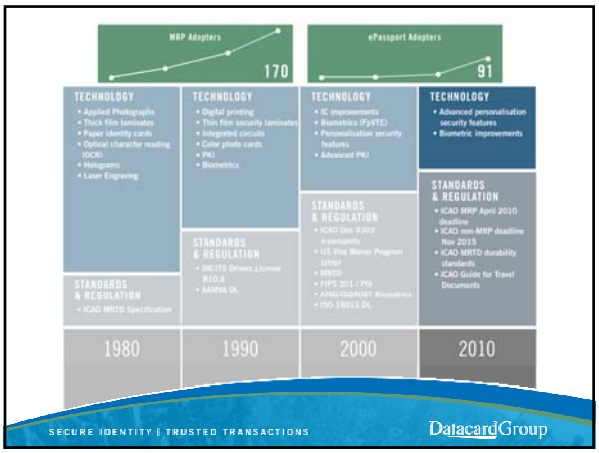

PLANNING PROCESS – KEY CONSIDERATIONS AND BEST PRACTICES

INITIATING → PLANNING → PROCURING → IMPLEMENTING → APPROVING → OPERATING

KEY CONSIDERATIONS	SOURCES OF BEST PRACTICES
Issuing organization structure	ICBWG (ICAO) – Handling and Issuance
Privacy control and IT security	ISO/IEC 27002:2005 – IT Security
Document security	AAMVA –Security Framework
Personnel vetting	WACCC – Misconduct Resistance
Physical security	APEC –Biometric Technology in MRTD
Treatment of blanks	ISO 27007 – Info. Security Management
Application entitlement decision	International Organizations
Personalization and delivery	Other Governments
Lost and stolen documents	Experienced Suppliers

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BEST PRACTICES BENEFITS

- Ensure compliance with regulations and standards
- Achieve greater process and document security
- Maximize efficiency in implementation and issuance and "future proof" system
- Lower risk to project timelines, cost projections and achieving interoperability with external systems and process
- Achieve respect of identity documents from external stakeholders and international community

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BEST PRACTICE FRAMEWORKS FOR IMPLEMENTATION

QSDC

Chain of Trust

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QUALITY, SECURITY, DURABILITY, AND COST (QSDC)

- Quality, Security, Durability and Cost are all essential performance criteria
- Security and Durability are guided by external standards and internal needs, whilst Quality and Cost are defined by the issuing country
- All four performance criteria are interconnected; e.g. security can be reduced by low quality, poor durability, or cost cutting
- The criteria must extend beyond the physical document, and include Best Practice implementation of the end-to-end solution

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SECURITY AT TIME OF PERSONALIZATION

- As the physical security of the document increases, the attacks shift to theft of secure components and using false breeder documents
- A significant defence against component theft is personalization security, where security is added to blank documents at the time of personalization
- Security features are created using the unique variable data belonging to the bearer, and added at personalization
- Traditional examples include the biometric and other data stored on the chip, a printed "ghost" image, laser engraved features such as CLI/MLI or tactility, and perforation features
- Counterfeiting or alteration of these features requires more than just theft of components; specialist engineering hardware and knowledge is needed

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DATACARD COVERT REGISTERED LASER/COLOR PHOTO PERSONALIZATION

Covert Photo Color/Laser Registration

Register a D2T2 color photo with an underlying, covert laser engraved image to create a covert security feature. The laser image is permanently engraved and cannot be removed without damaging the card and is evident when a D2T2 photo substitution is applied.

Dye Diffusion Thermal Transfer (D2T2)

The most common method of card personalization, D2T2 is applied directly to the card, providing high-resolution near edge-to-edge color printing.

DATACARD® LINKJET™ SECURITY PERSONALIZATION

Datacard® LinkJet™ Security Personalization

Patent pending inkjet technology that registers variable images or text across the threads of the passport pages thus providing a unique security feature that is extremely difficult to counterfeit or alter.

DATACARD® LINKJET™ SECURITY PERSONALIZATION

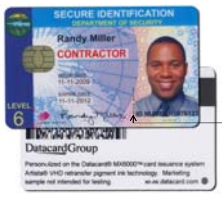
DATACARD OVERT SECURE INDENT PERSONALIZATION

Security Indent Printing Overlapping Photo

DATACARD® ARTISTA® VHD PIGMENT RETRANSFER COLOR PERSONALIZATION

High Speed Color Pigment Retransfer Printing

The Datacard® Artista® VHD provides high-resolution pigment color retransfer printing for over the edge personalization. Pigment retransfer printing has a higher resistance to UV fading and works well when personalizing non flat cards or unique card substrates.



Variable Color Pigment Retransfer Microprinting

The Datacard® Artista® VHD retransfer color pigment ink printing module renders personalized variable data with microprinting up to **1200 dpi.**

SECURITY AT TIME OF PERSONALIZATION USING THE MULTI-LAYERED APPROACH

- Security is a moving target and we must provide a migration path to add security at time of personalization
- Assist in methods to help inspection officers recognize security elements that can help detect Look a likes
- Develop new technologies to provide security in all layers of document issuance – not just the blank document itself
- Examples of technologies that are being evaluated and developed for this vital new area are:
  - Holography and micro lens structures
  - Nano materials
  - Novel use of new laser technologies
  - RFID

WORLD LEADERSHIP

- Datacard®
  - Is the **Best-selling brand** of both secure ID and card personalization solutions
  - Deployed solutions in over **350** government identity programs in more than **90 countries**
  - Is an **Industry leader** in smart card personalization and other advanced technologies
- Every day, Datacard® solutions are used to
  - Produce, personalize and deliver more than **10 million** cards
  - Personalize more than **4.7 million** smart cards
  - Personalize more than **35,000** passports
- Deployed
  - Solutions for passports in over **15** countries
  - National ID programs in over **25** countries
  - Offerings for Drivers' Licenses in over **30** countries

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SUMMARY

- The identity document has undergone significant change during the past 10 years
- Best practices are being formalized and utilization of these recommendations provides governments an opportunity to achieve higher security and efficiency, while minimizing risk
- Many sources exist to help in applying best practices to the unique needs of government projects
- (STOP) Security at Time of Personalization is an example of a method of instantiating best practices in implementation

HIGHER SECURITY | GREATER EFFICIENCY | LOWER RISK

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THANK YOU

- Please visit the Datacard booth and www.datacard.com/gov

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