



Introduction to Border Management

CHALLENGES OF GLOBALIZATION

- Increase of passenger numbers
- Preservation of highest security standards

STATE-OF-THE-ART TECHNOLOGIES

- Automated Border Control (ABC) systems
- Next-generation eMRTDs
- Advance Passenger Information (API)
- Border management systems connected to international watch lists

ADVANTAGES OF ABC SYSTEMS

- More efficient processing of passengers
- Cost reductions
- Increased capacities for border control
- Higher verification standards







Introduction to Border Management

INTEGRATED IMMIGRATION MANAGEMENT

- Tailor-made entry / exit solution
- Based on flexible software modules
- Highest security standards

GLOBAL INTEROPERABILITY

- Enhancement of worldwide security
- Processing of all kinds & generations of travel documents



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Border Management External System

ELECTRONIC MACHINE-READABLE TRAVEL DOCUMENTS (eMRTDS) Electronic ID documents accepted for traveling purposes complying with ICAO Doc. 9303

eVISA

Efficient solution for online visa application & verification process

VISA INFORMATION SYSTEMS (VIS)

Facilitation of visa application & of process of identification & verification

ADVANCE PASSENGER INFORMATION (API) SYSTEMS Submission of information on travelers to country of destination

WATCH LISTS & DATABASES

Information systems with comprehensive databases containing relevant information













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Immigration Process





Person & Document Identification & Verification



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The Future of Automated Border Control



OVERVIEW

- Turn-key Solution Provider
- Various Configurations
- Successful Operational ABC Gates
- Standards Compliant (Frontex & IATA)
- Customizable According to Requirements

Implemented in more than **5 countries** with over **8.5 million passengers** documents processed.



MÜHLBAUER'S FASTGATES & KIOSKS

The Future of Automated Border Control

- Support of all eMRTD, ePassports, eID cards & Mobile-IDs
- Modular structure allowing for individual configurations
- Flexible integration into any environment
- High-speed multi-biometric identity verification
- Strongest international security standards
- Comprehensive verification process of individuals and documents





MB FASTGATES - Automated Border Control Gates





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MB FASTGATES - Automated Border Control Gates



IRIS

- Reliable verification feature
- Matching of picture with enrolled data

FACE

- Identification by use of facial biometrics
- Live-ness detection

FINGERPRINT

- Verification by unique pattern of fingerprint
- Single or 4-4-2 finger

DOCUMENT READER

- ICAO standard compliant
- Passports, ID Cards, Mobile-ID





MB FASTGATES - Automated Border Control Gates







Live-ness Detection





MB SMART CORRIDOR







DOCUMENT and PERSON VERIFICATION













Governmental Application Field

- Verification by police or officials
 - mobile
 - stationary
 - mixture
- also applicable at borders or other security-relevant places
 - airports
 - harbors
 - check points

Application in Private Sector

- Verification by private instances (mobile)
 - car rental, bank/finance, HealthCare,
 - for Telecom ... and many more



MB Steel Reader



DOCUMENT VERIFICATION SOFTWARE

Components

- Full-page eMRTD document reader
- Standard PC
 - MS Windows 7,10
 - USB ports required

DG2	DG3 DG4
DG2	DG3 DG4
DG6	DG7
JG10 [DG11
JG14 [DG15
mmon EfCa	rdAccess
	DG10 I





Features

- Inspection of travel documents
 - VIZ data
 - IR/UV data
- Quality checks after personalization
- Testing of security mechanisms
 - Security feature data base
- Access to contactless chip of eDL, eMRTD
- Support of eDL ISO 18013
- Support of customer-specific chip applets
- Document verification
 - BAC / SAC / EAC / PACE CAM
- Easy and secure identification of document holder
 - Document verification against external DBs
 - Intuitive visualization of verification results
 - Special use case: Face/Finger print verification



MB Steel Reader Mobile



DOCUMENT and PERSON VERIFICATION SOFTWARE





Features

- Inspection of travel documents
- Quality checks after personalization
- Testing of security mechanisms
- Access to contactless chip of eDL, eMRTD...
- Mobile and easy to use
- Intuitive mobile app user interface
- Easy and secure identification of document holder
 - built-in face matching to compare digital image on chip and live photo
 - Document verification against external databases
 - Intuitive visualization of verification results

MB Steel Reader Mobile Live Demo





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Solution Proposal according to IATA OneID initiative





- same *touchpoints* as before
- passenger is înformed & pre-checked
- passenger is identified, not intercepted
- risk is analysed beforehand
- security officer can focus on monitoring and suspect activities



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