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WORKING PAPER

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TECHNICAL ADVISORY GROUP ON MACHINE READABLE TRAVEL DOCUMENTS (TAG-MRTD)

NINETEENTH MEETING

Montréal, 7 to 9 December 2009

Agenda Item 2: Activities of the NTWG
Agenda Item 2.8: TD1 Cards: Placement of Essential Information

TD1 CARDS: PLACEMENT OF ESSENTIAL INFORMATION

(Presented by the New Technologies Working Group (NTWG))

1. INTRODUCTION

1.1 In the late 1970s, ICAO developed international standards for reading passports and other travel documents. These standards were incorporated into Doc 9303 which comprised of three parts. In Part 3, the standards were set out for "Machine Readable Official Travel Documents" which have a td1 (85.6 x 53.98 mm) or td2 format (105.0 x 74.0 mm).

1.2 The td1 format has approximately the same size as a credit card and was therefore more convenient for citizens to carry or to keep in a wallet. Wallets and billfolds were designed to hold these sizes of documents.

1.3 In the 1980s and the 1990s a few States considered changing their Identity Cards from a non-compliant ICAO model or td2 format into a td1 format. Therefore, Identity Cards with a td1 format were hardly used as travel documents and were not seen much at border crossing points. These days more States are changing the format of their Identity Cards to the td1 format, which also serve as a travel document.

1.4 Border Control Authorities, Airport Authorities and Airlines have been increasingly using (e)-readers to facilitate their inspection processes. In operational processes and during trials, it has been proven that the current design of the td1 format travel document has an impact on reading these documents automatically.

1.5 This working paper informs the members of the TAG about this issue and also presents a number of new ideas.

2. CURRENT SITUATION

2.1 Since the late 1990s more States have changed their Identity Cards from a non-ICAO format or a td2 format to a td1 format.

2.2 Some States also included a contactless chip in the identity card to be compliant with ICAO e-passports standards. For example, in the European Union, 16 States have already issued td1 format Identity Cards to their citizens. Inclusion of the contactless chip according to ICAO specifications into the Identity Card is also a recommendation of the European Union. Therefore, a distinction can be made between Identity Cards and e-Identity Cards, both of which are ICAO compliant.

2.3 Border Control Authorities have been equipping their processes with (e)-readers in order to be able to read these travel documents. Additionally, more Airport authorities and airlines are using (e)-readers in their self-service kiosks to facilitate passengers to speed up the check-in and the control process.

3. NO SYNERGY IN READING PROCESS

3.1 A comparison of the reading process of the different ICAO compliant travel and identity documents shows that the MRP with the td3 format (125.0 x 88.0 mm) and the Identity Card with the td2 format allow the biographical and document data to be read from one side of the document.

3.2 Due to the size of the td1 format document, the design had to be adjusted in the past to facilitate the machine readability. To achieve the same result with the td1 document, the back side has to be read first for the Machine Readable Zone (MRZ) and then the front side of the card, to read the biographical data from the bearer.

3.3 When checking a td1 size card, the border control officer has to read the back side of the card first for the MRZ information to send the data to databases/watch lists or to be able to open the chip which uses BAC. The card then has to be removed from the reader and turned to allow reading of the front side of the card, to collect the complete biographical profile of the bearer and the necessary document related information.

3.4 This is a time-consuming process especially in an operational environment such as at airports, seaports or land borders. This is also the case for passengers who use the td1 format cards in self-service kiosks for check-ins. The fact that the card has to be turned in the reading process leads to practical problems. It is difficult to explain to passengers the order of doing things or how to extract the card from the reading device.

3.5 With the introduction of the e-component to the td1 format, it became more evident that the design of the card will lead to the above mentioned issues, since the MRZ is necessary to open the chip.

3.6 All td1 cards, whether containing a chip or not, face the same issues in an automated environment.

4. FIRST STUDY

4.1 A sub-group of the New Technologies Working Group has already conducted a first study of this issue and devised a number of new proposals which have been presented to TAG-MRTD/18.

4.2 These were associated with repositioning a part of or the whole MRZ to the front of the td1 card where also the most important biographical data was positioned for the use of dedicated (already existing) equipment.

4.3 Several options have been put forward in a Technical Report entitled *td1, replacement of essential information*.

5. SUGGESTED APPROACH

5.1 The first set of options had some drawbacks and, with the approval of the members of the TAG, further research to devise an acceptable solution had been conducted. This made clear that it was necessary to make a distinction between non e-cards and e-cards.

5.2 The proposed solution for the non e-cards lies in the reproduction of the MRZ into another medium on the front of the card, for example, a barcode. The benefit is that the representation is much smaller than a MRZ and can be easily integrated into the design of the non e-card. An important condition that has been fulfilled is that the barcode could be easily read by readers currently in use. Therefore the specifications have to be adapted to put this medium into one of the existing zones.

5.3 The proposed solution for the e-cards is based on a newly introduced chip access mechanism based on the PACE V2 protocol (Password Authenticated Connection Establishment). The PACE protocol is described in the Technical report on “Supplemental Access Control”, which is presented to this meeting of the TAG through a separate Working Paper. A 6-digit code is printed on the front side of the card in OCR-B font. The reader is able to read the 6-digit code. Once the code is read, a protocol will start to open the chip and access to the MRZ and all benefits of it becomes possible. This means that there is no requirement to move the position of the MRZ from the back of the card. To support this Supplemental Access Control, both the MRTD chips and the Inspection systems have to be modified.

6. ACTION BY THE TAG/MRTD

6.1 The TAG/MRTD is invited to:

a) take note of the work that has been done to date on the technical report follow up research;

b) recognize the importance of reading non e-Identity documents and e-Identity documents at the border in an efficient and non-intrusive way by border officials or the passengers themselves at a self-service kiosk;

c) look for solutions to create synergy in reading ICAO compliant travel documents;

d) approve further work to be carried out on the suggested approach.

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