International Civil Aviation Organization

INFORMATION PAPER

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

TWENTIETH MEETING

Montréal, 7 to 9 September 2011

Agenda Item 4:   Implementation of the Public Key Directory
Agenda Item 4.1: Recent Developments of the Public Key Directory

RECENT DEVELOPMENTS OF THE PUBLIC KEY DIRECTORY (PKD)

(Presented by the Public Key Directory (PKD) Board)

1.   **INTRODUCTION**

1.1   The ICAO Public Key Directory (PKD) has been established as a world wide accessible system that acts as the central broker to manage the exchange of certificates and certificate revocation lists that are necessary to validate ePassports. This central role is critical to minimize the volume of certificates and certificate revocation lists being exchanged, to ensure timely uploads and to manage adherence to technical standards. The PKD is therefore a key factor to achieve and maintain ePassport global interoperability.

1.2   The exchange of certificates and certificate revocation lists must be reliable and timely. This exchange cannot be achieved by other than electronic means. The facilitation of ePassport validation with the PKD operates on an open ended, indefinite basis.

2.   **STATE OF PLAY**

2.1   Since the Nineteenth Meeting of the TAG/MRTD in December 2009, important steps have been taken to consolidate the PKD. The following aspects are highlighted.

2.2   Following the update to the PKD Memorandum of Understanding at the end of 2008, the introduction of Master Lists in the PKD was finalized. Today the PKD Master Lists offer more than 80 CSCA (Link) Certificates from more than 40 ePassport issuing States. Together with the Document Signer Certificates and the Certificate Revocation Lists uploaded by the active PKD Participants, there is the opportunity to validate a major portion of all valid ePassports in circulation with the help of the PKD.

2.3   Today the PKD represents the implemented ePassport operational reference for ICAO Doc 9303, Machine Readable Travel Documents. A pivotal element when trying to reach and maintain adherence to the standards is the obligation to rectify unacceptable non-conformance issues in future PKD contents. While doing so, PKD Participants profit from the collected expertise represented on the PKD Board. Border control authorities in the first row benefit from interoperable standard conformant ePassports and PKD participation through a facilitated manual and/or automated ePassport validation in times of ever increasing global travel.

2.4   The PKD Board completed the drafting of papers that describe the handling of non-conformance issues of PKD contents (PKD Upload Contents Checks, PKD Machine Readable Error Codes). The PKD Board profited from close liaison with ISO who contributed a current elaboration of the underlying standards (Guidance Document). Those documents can be downloaded from the PKD Board web site (http://www2.icao.int/en/MRTD/Pages/icaoPKD.aspx).

2.5   The operation of the PKD in 2009, 2010 and 2011 is based on the operational contract between ICAO and the PKD Operator, Netrust. With the contract the principle of shared burden for ICAO costs and individual Netrust costs per PKD Participant was implemented. The financial regulations have proven to be a solid basis not only to cover the operational costs, but also to foresee future investments. The focus of recent operational improvements was a reduction of human intervention in daily PKD operation, as well as the handling of non-conformance issues found in newly uploaded PKD contents.

2.6   The PKD Board and ICAO discussed ways to continue the smooth PKD operation in 2012 and beyond under the conditions of growing PKD participation and extended PKD contents. One point to explore together with the PKD Operator Netrust, is the possibility of lower operational fees.

2.7   Since the Nineteenth Meeting of the TAG/MRTD in December 2009 the following new PKD Participants signed the MoU: Austria, Hong Kong (China), Macao (China), Czech Republic, Hungary, Latvia, Morocco, Netherlands, Norway, Slovakia, United Arab Emirates. Today there are 27 PKD Participants and the PKD enjoys substantial international support, e.g. from the G8, OSCE and EU. One practical example is the two-day OSCE PKD Workshop, which was held in Vienna, Austria in May 2010. The workshop enjoyed high-level government and expert attendance from 53 States and 13 international organizations as well as had a considerable vendor presence.

2.8   Nevertheless, there is still a gap between the number of ePassport issuing States and the number of PKD Participants. The PKD Board with the focus of promotion in Europe conveys the message that ePassport issuance and participation in the PKD must go hand in hand. This follows the ICAO Recommended Practice as outlined in Annex 9 - Facilitation to the Chicago Convention.

2.9   The administrative work of the PKD Board resulted in five meetings since the Nineteenth Meeting of the TAG/MRTD in December 2009. The working administrative, financial and technical regime that ensures the smooth operation of the PKD as required by the MoU has been refined and extended where necessary. This includes, but is not limited to, the determination of the composition of the PKD Board and the financial regulations.

3.   **CONCLUSION**

3.1   The TAG/MRTD is invited to note the state of play of the PKD.

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