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TECHNICAL ADVISORY GROUP ON MACHINE READABLE TRAVEL DOCUMENTS

Sixteenth Meeting

(Montreal, 26 to 28 September 2005)

Agenda Item 2: Implementation of e-passports
Agenda Item 2.2: Report of the New Technologies Working Group

THE STRATEGIC FOCUS FOR FUTURE WORK OF THE NTWG

(Presented by the New Technologies Working Group)

1. INTRODUCTION

1.1 This document describes NTWG's strategy for ongoing work in the development of standards using advanced technologies in travel documents and related systems to facilitate international travel while maintaining appropriate levels of security. Its purpose is to seek approval of the TAG/MRTD for the strategy, and inform it of future NTWG work programmes.

2. BACKGROUND

2.1 The NTWG has conducted regular strategy reviews. Most recently, at TAG-MRTD 14 in May 2003, the TAG endorsed WP 15 which focused on the strategy to be employed in relation to the use of advanced technologies in MRTD's. This provided an endorsement of the strategic direction for deployment of the e-Passport.

2.2 This new strategy maintained the key driving principle of backward compatibility (primarily the use of OCR B in the machine readable zone) but moved away from further developing guidance material to accommodate the use of a variety of additional co-existent data storage technologies. This fundamental shift in strategy was developed from need to nominate one primary biometric and one primary data storage medium to facilitate global inter-operability and ensure rapid adoption of biometric based security.

2.3 In the development of future NTWG work programmes there are a number of strategic issues to consider. These have been grouped under broad headings as follows:

2.3.1 Existing Standards

- a) That the application of new technologies remains compatible with existing MRTD technology. It is clear that many member states will not deploy e-Passports in the foreseeable future; and
- b) The further development of traditional document security features is still valid. It is clear that many member states will not deploy e-Passport reader technology in the foreseeable future.

2.3.2 e-Passports and Biometrics

- a) The early development of MRTD guidelines if not standards is critical to ensure that member states wishing to deploy advanced technologies have a framework to operate under that will support global interoperability;
- b) e-Passports have yet to be thoroughly and operationally tested in a live high volume environment;
- c) The Public Key Directory (PKD) is yet to be deployed;
- d) e-Passport technology has the potential to allow for data updates by either issuing authorities or third parties;
- e) The use of biometrics at border controls has not been widely applied; and
- f) States are beginning to evaluate and deploy biometrics-matching technology in passport application processing systems.

2.3.3 Communications

- a) Developments in global communications provide an opportunity for greater real time information sharing between member states to combat fraud;
- b) Over time travel document applicants will increasingly expect to receive services “on-line” (for both passports and visas); and
- c) In recent times the international visibility of the NTWG has grown significantly. In addition to attendance at meetings there has been a growing demand from member states for information (particularly in relation to e-Passports) and this trend is likely to continue over time.

2.3.4 Participation

- a) The ability of member governments to actively participate in the NTWG has become an issue particularly in recent times as a result of high workloads in relation to the introduction of the e-Passport; and

- b) While participation in the NTWG has required a significant commitment from members it must also be acknowledged that the level of attendance at meetings has continued to climb to point where it has become an issue in itself. The sheer size of meetings has meant that conducting business has inevitably become less efficient in an environment of full member participation.

2.3.5 **General**

- a) Since the terrorism related events of 2001 the international travel environment has changed and while security will continue to be an overriding issue for many member states it is likely that technology will also be applied to cope with the facilitation of ever increasing traveller volumes; and
- b) Globally, governments now expect a higher level of sophistication and speed in the deployment of technologies in relation to border security and identity management.

3. **FUTURE FOCUS**

3.1 In addressing the strategic issues above, the future focus for the NTWG can be broken into four major categories of work. These are:

- a) Short-term activity;
- b) Ongoing programme oversight;
- c) Ongoing maintenance activity; and
- d) Longer-term goals.

3.2 **Short-term Objects**

3.2.1 These are broadly categorised as objectives to be substantially achieved by TAG 17. It is proposed to undertake the following key activities:

- a) Contribute to the creation of a communications plan (in partnership with other Working Groups) to ensure an effective means of disseminating appropriate information to both member states and the vendor community) on new technology developments;
- b) Provide expertise in the development of an e-MRTD testing facility;
- c) Finalise the technical report on e-Visas;
- d) Complete the research on an MRZ Identifier for e-Passports;
- e) Finalise the technical report on hybrid travel documents;

- f) The development of e-Passports has obviously included the development of RF writer/reader technology. While it would appear the key technology issues have substantively been addressed the actual use of these devices in conjunction with border control activities has not. The NTWG is proposing to research this issue with emphasis on ergonomics and the mitigation of risks such as eavesdropping. It is expected that the outcome of this research will include a high level functional specification for border based multifunctional travel document readers; and
- g) Provide guidance material on data sharing between states to support a number of international initiatives in relation to lost and stolen travel documents.

3.3 **Ongoing Programme Oversight**

3.3.1 Provide effective support and oversight of the development, implementation and ongoing management of the ICAO PKD.

3.4 **Ongoing Maintenance Activity**

3.4.1 Ongoing maintenance activity refers to work items that reoccur over time. It is proposed to undertake the following key activities:

- a) Reviewing new technology applications in relation to travel documents through the three yearly ICAO RFI process;
- b) Review of the format and content of the Machine Readable Zone (MRZ) while ensuring backward compatibility;
- c) Ongoing updates to the technical reports relating to the initial deployment of the e-Passport;
- d) Support the DCFWG in the refinement and harmonisation of existing DOC 9303 standards;
- e) Support the EPWG through the provision of relevant technical expertise and the preparation of papers for publication;
- f) Continued liaison and joint activity with ISO/SC17/WG3;
- g) Continued liaison with other ISO working groups (e.g. the development of application profiles/user specifications for SC37); and
- h) Ongoing review of the participation and membership of the NTWG to ensure the group's structure best meets the needs of member states.

3.5 **Longer-term Goals**

3.5.1 As the international travel and security environment evolves the NTWG will continue to identify issues to address through the development of standards and guidance material however the following areas of activity are envisioned or in fact underway:

- a) Develop guidance material and standards that will potentially enable states to obtain leverage off the storage capacity of RF Chips. Current versions of technical reports relating to e-Passports support the implementation of a “write once read many” deployment, however over time issuing authorities may wish to broaden the functionality to enable additional information to be written to this chip post issue. This may as simple as updating the holders’ portrait or as complex as allowing third parties to write data (e.g visas);
- b) Develop guidance material and standards in relation to real time data sharing between states through the positive validation of travel documents at check in or border control. This would require states to allow other states to access a view of their databases via the internet or third party communication broker;
- c) Develop guidance material and standards in relation to emergency passports;
- d) Develop guidance material and standards in relation to the receipt and processing of Internet based travel document applications including the collection of biometrics;
- e) Develop guidance material and standards in relation to the use of biometrics in travel document issuance processes including identity verification and fraud detection; and
- f) Develop guidance material and standards in relation to automated border clearance of travellers presenting e-Passports.

4. CONCLUSION

4.1 The NTWG has a broad range of activities planned to ensure that the continued evolution of e-MRTD’s is well supported by technical expertise and specifications. The role of the working group will to expand include oversight of the ICAO PKD development and activities that will leverage off the availability of real-time online communications. It will be critical that the relationships between all of the interested parties are well managed to ensure the working groups continued success.

5. ACTION BY THE TAG/MRTD

5.1 The TAG/MRTD is invited to:

- a) The NTWG invites the TAG/MRTD to endorse the future focus of the NTWG.

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