PKD Board Annual Report 2019
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PKD Board Discussion Paper

Forwarded by: 2019 Chairperson

Reference Document(s):   B-Pub/59 - PKD Board Annual Report 2018 dated 16.01.2019

BACKGROUND

The MoU, Attachment C, paragraph 1.2 states the following:
"1.2 The PKD Board is the standing body responsible for the ICAO PKD. Its duties will include:
...
j) submit to the Participants an Annual Report on its activities and other relevant issues in the preceding year on or before 31 October;"

PURPOSE

This Discussion Paper is intended to fulfil the MoU requirement.

URGENCY

The matter should be dealt with between meetings.

PROPOSAL

PKD Board Annual Report 2019

Purpose

Based on, and in continuation of the previous PKD Board Annual Reports, the present Annual Report gives an overview of the development of the PKD as well as important activities of the PKD Board in the year 2019.

1. PKD Organization – PKD Board and Executive Body Meetings

a)   PKD Board

The PKD Board held the 26th ordinary meeting on 29 and 30 October 2019 in Reykjavik, Iceland. The meeting was kindly hosted by Registers Iceland. In the course of this meeting, Mr. Mario Wiesen, the PKD Board Member from Luxembourg was elected as 2020 Chairperson. Ms. Maria-Esther Fernandez Crespo from Spain was elected as the 2020 Vice-Chairperson.

During the same meeting, and following the PKD Board election procedures, the Board recommended the reappointment of the following PKD Board Members for three-year terms beginning in November 2019: Australia, Canada, Japan, Luxembourg, New Zealand, United Kingdom and the United States. All recommendations were approved by ICAO Council. They joined the existing Board members representing China, France, Morocco, Netherlands, Nigeria, Singapore, Spain and Switzerland.

b)   **Executive Body**

The Executive Body (EB) held its 4th meeting in Luxembourg in April 2019. A follow-up informal meeting took place during the ICAO TRIP symposium in Montreal in June 2019.

During the afore-mentioned ICAO PKD Board meeting, New Zealand was elected to the PKD Executive Body for a two-year term. They joined Netherlands and Switzerland as members.

2. PKD Administration

a)   **Membership Fees and Operational Contract**

The fees for 2020 were approved by the PKD Board to consist of an ICAO fee of US$ 6,015.71 and an operator fee US $22,500, thus totalling US$ 28,515.71 (compared to US $29,853.23 in 2019). The ICAO fee decreased in 2020 relative to previous years based on cost sharing of ICAO costs amongst the increased number of members in 2019. As per the PKD operational contract signed in April 2016, the PKD operator fee also decreases as the number of PKD participants increases and such participants become active. The fee structure is highlighted in Table 1 below. The fee for 2020 remained at US$22,500 but should decrease in 2021 based on newer PKD participants becoming active.

45 Participants	**USD 29 900**
50 Participants	**USD 27 000**
55 Participants	**USD 24 500**
60 Participants	**USD 22 500**
65 Participants	**USD 20 900**

Table 1. Operator fees for the ICAO PKD system relative to the number of active PKD participants

In December 2019, ICAO signed an amendment to the existing contract with the operator to provide for extended support. In particular, the extensions related to support for the ICAO master list, provision of extended statistical reporting as well as extended technical advisory possibilities. The amendment increased payments to the contractor by USD 100 000 annually through to the end of the contract.

b)   **Contract Support Group**

At the PKD Board meeting, the re-establishment of the Contract Support Group was approved. This group will examine appropriate next steps in terms of extension of the existing contract and time of tendering for a new operational contract. By the end of the year, representatives of Luxembourg, the Netherlands, New Zealand and Nigeria had volunteered to participate in the group. Coordination will be agreed in early 2020.

3. Technology, System Maintenance and Evolution

The PKD system remained stable and ran without notable issue throughout 2019. All operations were achieved within Service Level Agreements. A maintenance release was deployed by the operator in July 2019 while a major upgrade of datacentre components was undertaken in September 2019, both of which were achieved without significant downtime. The annual audit was completed successfully in July 2019.

a)   ICAO CSCA Master List

The ICAO CSCA Master List project is nearing completion.

ICAO and the United Nations (UN) signed a cooperation agreement governing arrangements between ICAO and the UN around use of the UN CSCA to sign ICAO's Master List Signer Certificate in November 2019. The UN hosted a meeting with ICAO and Member State experts in New York in December 2019 at which final detailed arrangements were agreed. Following Board approval of all documents, the first master list will be published in Q1 2020. Updates of the list will be made at approximately 3-monthly intervals thereafter when appropriate.

b)   End user Access to the PKD (Commercial access)

While data from the PKD is currently only accessible to participants and to non-commercial entities (the latter through the public download site), discussions have been on-going since the 2017 meeting of the PKD Board to provide for appropriate commercial access to the PKD data should this be of public benefit. These discussions continue in efforts to refine the concept and put in place appropriate organizational measures for such use.

Canada presented its work on this matter at the PKD Board meeting, having taken responsibility for work in this domain since 2018. A number of meetings had been organized at ICAO that suggested a preferred approach towards initial opening up to partners in the traditional travel continuum. Canada also worked with the Executive Body to outline a tentative plan towards use cases and pilot studies. The Board complimented these efforts during its 2019 meeting and strongly endorsed Canada's plans to proceed with further investigation of opportunities for undertaking pilots while continuing community engagement on the matter, suggesting that secure and proper validation of ePassports in all circumstances should be supported. Thus, Canada will continue to work with ICAO, the Board and other community members in the coming period in order to make end user access a reality.

It is anticipated that once such work provides improved clarity on needs and opportunities, further work will be undertaken to define any associated costs and to elaborate any necessary fee structure, as well as to update organizational and administrative procedures and documentation as appropriate to take into account the new usage.

During the PKD Board meeting, a number of delegates also stressed the strong association between the efforts being made in terms of end user access to the PKD and ICAO's work on a Digital Travel Credential (DTC). The US representative delivered a presentation summarising the importance of the PKD for future DTC success. The digital credential will require validation using public key infrastructure, implying a need for PKD access amongst those involved in DTC checks throughout the travel continuum.

This will likely include private entities whose access to the PKD would provide for improved efficiency and scalability. The ICAO secretariat and PKD Board will therefore work closely with the ICAO New Technologies Working Group who are involved in definition of the DTC specifications to push both developments forward in tandem.

c)   **Expanding the use of the PKD**

The PKD Board discussed the possibility of expanding the use of the PKD by allowing PKD Participants to exchange related travel document and electronic visa certificates such as those associated with Visible Digital Seals (VDS) via the ICAO PKD. The Board approved such use and provided a mandate to the Executive Body to define further work in order to realize such use.

The TAG-TRIP has approved the requirements for a VDS to be included in the travel documents – essentially a bar code that can be applied to travel documents with limited duration of validity. It can be used to encode data as well as a digital signature in a similar manner as for the electronic chip

c)   **Participation / PKD Usage**

In the course of 2019, eight new PKD Participants were welcomed, a notable uptick compared to previous years. Specifically, Belarus, Bosnia and Herzegovina, Croatia, Egypt, Indonesia, Italy, the United Republic of Tanzania and Uganda joined the PKD.

Together with Australia, New Zealand, the United States, Canada, the United Kingdom, Japan, Singapore, Germany, Republic of Korea, France, China, Kazakhstan, India, Nigeria, Switzerland, Ukraine, Latvia, the Czech Republic, Macao/China, the United Arab Emirates, Hong Kong/China, Slovakia, Netherlands, Morocco, Austria, Hungary, Norway, Bulgaria, Luxembourg, Sweden, United Nations, Spain, the Russian Federation, Malaysia, Argentina, Thailand, Ireland, Moldova, Belgium, Brazil, Qatar, Seychelles, Uzbekistan, Philippines, Iran, Colombia, Romania, Finland, Benin, Botswana, Kuwait, Georgia, Turkey, Iceland and Oman, Turkmenistan, Peru, Barbados, Panama, the European Union, Mali, Cote d'Ivoire and Serbia, there were seventy-one PKD Participants at the end of 2019.

The contents of the PKD also continuously grow as participants continue to upload their relevant data. Improvements in usage of the PKD were discussed at the PKD Board meeting. Table 2 shows PKD contents in the final 3 months of 2019.

	Certificates	CRLs	CSCA MasterLists
October 2019	13 437	39	9
November 2019	13 563	40	9
December 2019	13 598	40	9

Table 2. Contents of the PKD repository at the end of 2019

4. Meetings and Events

a) ICAO General Assembly

Two papers related to the PKD were put forward to the Executive Committee of the triennial ICAO Assembly that took place in Montreal in 2019. The Committee complimented the work of ICAO related the PKD and overwhelmingly endorsed the work program for the period 2019-2022 proposed in one of these papers (specifically, assurance of uninterrupted PKD operations, development of the new ICAO masterlist, assurance of compliance with standards, continuing outreach to the community, increased active use at border controls in collaboration with the border security sub-group of the TAG/TRIP, expansion to include exchange of additional certificates and enabling commercial entities to access the PKD). It also called on all Member States to join and to make full use of the PKD.

b) Other Events

Efforts to ensure community awareness of the PKD and its benefits continued throughout 2019. In particular, a dedicated presentation session on the PKD was organized at the regional TRIP seminar in Benin in February 2019. The PKD was also promoted and presented during workshops organized by ICAO in Namibia (July 2019) and Tunisia (October 2019) in conjunction with meetings of the ICAO Capacity Building Working Group. ICAO also participated in the OSCE PKD country visits to Croatia and Montenegro in the first quarter of 2019. Finally, at the request of AFRIPOL who requested more information and guidance regarding African States joining the PKD, ICAO participated in AFRIPOL's 3rd General Assembly in October 2019.

Conclusion

The ICAO Public Key Directory continued to be a valuable resource for the aviation and border management community in 2019, providing for efficient and effective public key certificate exchange. 2019 was a year of significant growth in membership; **it will be crucial that such increased membership translates into increased system usage (both by new and existing members) in terms of both upload and download going forward**. This is particularly true given the various developments foreseen in the near future.

Mr. Mario Wiesen
2019 Chairperson
(on behalf of the ICAO PKD Board)

20 February 2020