

Hello, my name is Joel Woolf, Assistant Director of Passport Technology and Standards in the Australian Passport Office within the Department of Foreign Affairs and Trade.

I'd like to thank ICAO for the invitation to speak at this Forum, and thank the Government of Mongolia for hosting us.

I'm going to be speaking today about Australia's public key infrastructure, our approach to passport design, and how we share this knowledge with others, such as the support the Australian Government is providing to various nations, with a focus on Tuvalu.

PKI

Australia is very supportive of the ICAO Public Key Directory, and strongly believes in the benefits to members. As the central repository for the data used to validate ePassports, the PKD is essential to the global interoperability of ePassports.

Australia is a founding member of the PKD, and currently sit on the Board and Executive Body. Australia had one of the first internationally compliant ePassports, released twenty years ago in 2005. We are pleased to see the PKD growing as ePassports become more widespread.

As you no doubt know, ePassports confer many advantages on their bearers, the issuers, and border authorities. These documents enable fast biometric validation using facial recognition software, meaning travellers can access automated border control gates. This speeds up and simplifies the travel process.

Using PKI to sign the information in the passport's chip gives greater assurance that the document is genuine and has not been tampered with.

Eventually, the use of PKI will enable digital travel credentials, which may come to replace physical documents in the future.

The PKD plays a central role in this ecosystem, streamlining and facilitating the use of ePassports globally.

We also recognise some of the challenges that come with setting up and maintaining a PKI. It can be very expensive, which may simply not be viable for a small nation. Additionally, there may be environmental issues which make hosting a data centre and backup site difficult, such as proneness to flooding, or lack of appropriate network or electricity infrastructure.

PKI takes expertise to maintain, and it can be a challenge to find the necessary expertise and keep it in government. This is a challenge that we face in Australia too.

Although there is a large skill set required to cover the complete installation and maintenance of a country's PKI, the PKD's Data Quality Coach Program can assist with aiding a State's passport agency with their certificate compliance, and integrating with the PKD. I know Mongolia took advantage of this program with great success.

I am currently working with my Canadian counterparts on a review of this program, and we hope to present a revamped program to the PKD Board in October this year.

I'd also like to touch on the importance of having a whole of government, collaborative approach to PKI, to maximise its usefulness once the decision has been made to implement.

With the increasing digitisation of a range of documents, the ability for multiple government agencies to collaborate and use the ePassport PKI is very important.

Australia leveraged this cross-agency collaboration for our International Covid Vaccine Certificate, which was a joint effort by the Australian Passport Office, the Department of Health, and Services Australia, and allowed Australians to travel again in the early stages of opening, after the pandemic-related border closures.

Unfortunately, inter-department competition, or lack of communication between various government department silos, can sometimes mean that infrastructure is duplicated. Alternatively, it can also mean that the infrastructure is limited in scope, and the full value of the technology isn't realised.

Not only is this inefficient, it can also lead to problems with document interoperability. I would strongly recommend to any country considering setting up a PKI that they consider how best to ensure a cohesive, whole-of government approach before they begin issuing ePassports.

I believe this is of increasing importance as we begin to introduce digital travel credentials, pilot licenses, health certificates and other electronic documents which leverage public key infrastructure but may require broader government collaboration.

PKI is a key strategy for ensuring traveller identification and document security, but we also put significant effort into ensuring the physical

document remains highly secure, so I'm going to move on now to talk about document design and security.

Passport Design

Australia released its R Series passport in 2022. This was a major upgrade to the Australian passport, featuring a new polycarbonate data page, new visa pages, and various cutting edge security features throughout the document.

We've recently begun the project for our next series of passport, the T Series, which is due to be a minor upgrade to the current document, and we are currently in the research phase. We'll most likely release the T Series in 2030.

As part of this we are looking for areas where we can improve the security of the document, with a particular focus on the areas that are most vulnerable to attack. Having said this, I must point out that the current document is very secure. We have only seen a handful of attempted counterfeit documents. These have all been poor quality and intercepted by border authorities before reaching Australia.

Almost all of the fraud we now experience occurs during the application process, in fraudulent attempts to obtain genuine documents. Luckily for us, and unluckily for the fraudsters, we have a very sophisticated fraud prevention team who employ a range of techniques to stop these applications progressing.

Australia has faced challenges in the durability and manufacturing consistency of some of our documents. We are currently working on a project to uplift our current document, and ensure that the T Series uses materials that can cope with Australia's harsh climate extremes.

I would like to stress the importance of ensuring that passport manufacturers are contractually bound to deliver passports to a stringent quality standard, and that this is very much something that needs to be actively managed throughout the lifetime of the document.

We've been aided in this work by some of our partner agencies in other countries, and we are truly grateful for their support.

Tuvalu

Speaking of support, I'd now like to shift to talk about some of the support Australia has been providing, with a focus on the capacity building and facilitation work Australia is doing with Tuvalu.

The Australian Passport Office is working with the Government of Tuvalu on the Tuvalu Passport Uplift Project, which is part of the Australian Government's commitment to Tuvalu under the Falepili Union.

We have a dedicated team, undertaking a number of activities in this space.

For example, we are investigating and assisting with INTERPOL membership for Tuvalu, and aiming to increase Tuvalu's presence and participation in ICAO working groups, such as the Implementation and Capacity Building Working Group.

The Australian Passport Office is assisting Tuvalu to engage with their current passport infrastructure vendors. It is important to ensure that these vendors are providing value for money and an appropriate solution for Tuvalu. Along with this comes a supply chain review. Supply chains for passports can be very long, with many, sometimes hundreds, of suppliers contributing to the construction of the physical book. It's important for governments to understand who is supplying the components to their passport, where their dependencies are, and what potential risks they may face if these supply chains are disrupted. This part of the project will culminate in a review of Tuvalu's passport design and production standards.

We are working with Tuvalu on the ICAO self-assessment of Tuvalu's end to end passport application and issuing process, including the security of the document, and of the legislation governing passports.

We're also working on improving photo quality, including providing equipment and training to ensure that Tuvaluan passport photos can meet ICAO specifications.

Tuvalu, as a nation with a small population, faces some of the challenges I outlined earlier regarding PKI. We are confident that Australia can assist Tuvalu to improve the passport experience for Tuvaluan citizens, and give Tuvaluans a passport that meets their needs.

Close

That's all from me for now, thank you for your attention. I'm happy to take questions during the panel or please feel free to approach me in one of the breaks for a chat.