ePASSPORT SYSTEMS

Best practices and fundamentals for success

WHEN TO MAKE THE MOVE TO AN ePASSPORT SWEDEN'S ICAO PKD PROJECT CANADA'S PKD EXPERIENCE

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ESTONIA AND FINLAND: INNOVATING IDENTIFICATION MANAGEMENT





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ICAO MRTD REPORT VOLUME 9, NUMBER 2, 2014

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Submissions

The MRTD Report encourages submissions from interested individuals, organizations and States wishing to share updates, perspectives or analysis related to global civil aviation. For further information on submission deadlines and planned issue topics for future editions of the MRTD Report, please contact Mauricio Siciliano, Editor-in-Chief, at: msiciliano@icao.int.

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Published by

International Civil Aviation Organization (ICAO) 999 University Street Montréal, Québec Canada H3C 5H7

The objective of the ICAO MRTD Report is to provide a comprehensive account of new developments, trends, innovations and applications in the field of MRTDs to the ICAO Member States and the international aeronautical and security communities.

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Printed by ICAO

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The TAG/MRTD develops specifications for machine readable passports, visas and official travel documents, electronic machine readable travel documents and guidance material to assist States in implementing these specifications and exploiting modern techniques in inspection systems.

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ICAO's Global Presence





WELCOME TO MRTD REPORT'S SUMMER ISSUE!



This issue continues to reflect the diversity of topics and challenges in holistic traveller identification management.

The ICAO Traveller Identification Programme (ICAO TRIP) Strategy, adopted by the ICAO Assembly in 2013, has been gaining further momentum. The adoption of the Strategy has provided a framework for achieving the maximum facilitation and security benefits in the future by bringing together all the elements of traveller identification management. Now the main focus is on operationalizing the ICAO TRIP Strategy and developing it into an action plan where all stakeholders, in a coordinated manner, have a role to play in day-to-day implementation work.

In line with promoting advocacy and technical dialogue with Member States, the recent MRTD Regional Seminar in Uzbekistan, organized in partnership with the OSCE, addressed ICAO MRTD Standards and specifications, identification management best practices and related border security issues. With a strong regional focus, it looked into capacity-building challenges and explored new and more effective ways of providing future technical assistance in Central Asia. As usual, Seminar materials are available for reference on the MRTD website.

This issue looks into a broad range of areas initiated by the ICAO TRIP Strategy that explore challenges and responses in regions and Member States. The implementation of ePassport—and getting it right—remains a central theme on the global traveller identification management agenda. Current specifications for issuing ICAO-compliant ePassports provide a solid foundation for assuring the most secure and robust travel document ever issued. With about 500 million ePassports in circulation, over 120 States claim they are currently issuing ePassports. And these numbers continue to rise.

Given the background, it is of crucial importance ePassport issuance projects achieve their full security and facilitation benefits, including ensuring accurate ePassport readings at borders and the proper use of the ICAO Public Key Directory (PKD). In this magazine, Barry Kefauver shares a helpful framework of policy issues and points to consider before embarking upon an ambitious—and often costly—ePassport implementation project. The experiences of Canada and Sweden illustrate well that the PKD is a crucial component in the overall ePassport infrastructure required to ensure optimal security and facilitation benefits.

This issue also shares some important lessons learned by ICAO Member States on separate holistic identification management priorities. The innovative Estonia-Finland data sharing initiative, intended to make identification management more effective and secure, is a good example of how new technologies, trust and solid partnerships can be effectively leveraged to enhance inter-agency and cross-border cooperation. The Turkish Foreign Ministry's article on its new Electronic Visa System additionally provides lessons on how both border security and facilitation can be enhanced by applying new thinking and new technologies to old challenges.

Finally, capacity-building and assistance to States remains an important component of the ICAO TRIP Strategy and this issue shares some updates about recent activities in the Americas. The Canada-funded ICAO-OAS/CICTE project in the Americas has been successfully implemented and provides food for thought for further capacity-building initiatives in the region. Enhancing traveller identification management and border controls in Central America is another area where the ICAO TRIP programme has been active and offers some insights from recent assessment missions in Costa Rica and Honduras.

The next MRTD/ICAO TRIP Regional Seminar, in Spain (June 2014), is just round the corner. An important new feature of this Seminar is interoperability tests for the Supplemental Access Control (PACE/SAC) digital protocol that will be mandatory for all new European travel documents after 31 December 2014. At the Seminar, States and industry partners will have an opportunity to test the interoperability of the PACE/SAC in their passports and share and discuss their experiences.

Lastly, the 10th MRTD/ICAO TRIP Symposium will take place in Montreal on 7-9 October 2014. This year's Symposium will focus on the need for robust identification management infrastructure by exploring key concepts and components such as Evidence of Identification, civil registries, inter-agency cooperation and data sharing and integrity of the passport issuance process. In light of recent events, the Symposium will also highlight the importance of properly managing stolen and lost passports and other interoperable applications that enhance border controls for combating and preventing terrorism and trans-border crime.

Further information about the Symposium and online registration are available on the ICAO MRTD website.



ePASSPORT: DO IT THE RIGHT WAY!



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There was a time, not really that long ago, when those of us in the travel document community lusted to have a means to link the bearer of a passport with the document itself. That is, to have confidence that the passport presented for inspection is, in fact, presented by its legitimate owner. There have been enormous strides made over the past decade in researching, designing, developing and deploying today's generations of travel documents. Building on the fundamental specifications of ICAO Document 9303, the most visible results of these efforts have been the incorporation of RF chips and biometrics in passports and other identity documents.

This article by Barry J. Kefauver, ISO and NTWG expert, describes these efforts, provides an understanding of how we have gotten where we are and offers some insight into the work now underway on the next generation of travel documents. The fundamental message is to convey the benefits of ePassport implementation as well as the requirements that must be fulfilled in order to insure that the 'e' is carried out in ways that will USE the capabilities of the technologies. This message is of value to those who are about to embark on new ePassport programmes as well as those who are moving into second and even third generation applications.

CURRENT STATUS WORLDWIDE

At the time this article was written, there were more than 100 countries issuing chip-based passports and more than 500 million—yes, over a half billion—ePassports in circulation. For all intents and purposes, the ICAO April 2010 requirement that all passports be machine readable has been met with international compliance. Work continues to refine and enhance the document issuance programmes in both new start-up applications as well as work in some countries that are looking toward second and third generation ePassport initiatives. However, while the work in border inspection is slowly moving forward, the numbers of countries able to take advantage of the electronic tools ePassports provide lags far behind the mass in circulation.

Currently, the deadline of 24 November 2015 is of concern in that all passports in circulation at that time must be machine readable. Generally, the bulk of the world will not be adversely affected, but there may well be some disruption to, for example, visa issuance for a portion of the travelling public. ICAO is working to smooth this transition as much as possible.

THRESHOLD QUESTIONS

Many countries have launched successful ePassport deployments. Conversely, some issuers have encountered numerous problems that in far too many instances have resulted in costly and embarrassing failure. In assessing the reasons why some fail and others don't, several distinguishing qualities emerge. These distinctions fall into the general category of proper planning and careful thinking long before system specifications are developed or a tender is drafted.

The essential and fundamental questions that must be asked to guide these decision-making processes include the following:

- Do I want an ePassport system?
- Do I need an ePassport system?
- Am I prepared to USE an ePassport system?
- Is the integrity of my current process consistent with and complementary to the technological advances of an ePassport programme?

The remainder of this article examines these questions and provides a framework for applying the answers to a specific passport environment. These questions are yours to answer, not the author's. The answers to these questions are for your use only. Candour and honesty are requisites for asking and answering and the results will only be useful if done accordingly.

DO I WANT AN ePASSPORT SYSTEM?

Think through this question very carefully. At first blush, the answer appears to be a no-brainer: of course, I want one. That is the purpose of this self-questioning: to make sure this 'correct' answer is based on the right reasons. Use the additional questions below to make your response a bit more objective—for your issuance programme.

The value of an ePassport is measured by the trust and confidence those who must inspect it can place in it.

- Have you done a comprehensive risk identification and management analysis of your present system?
- Are you confident that your vulnerabilities have been identified and corrected to take advantage of the ePassport? Remember that every issuing authority embodies vulnerabilities. Be brutally honest and your results will be all the better for it.
- Why is an ePassport useful to your country? Be sure to read and be attentive to all of the questions that address what must be carried out in order to use an ePassport programme.

DO I NEED AN ePASSPORT SYSTEM?

There is no question that the international travel document community is convinced that the world needs ePassports and the document/traveller benefits they provide. Nevertheless, this conviction is tempered with an acknowledgement that not all countries are in the same position to 'do' ePassport programmes the right way. That is another purpose of this article: to make sure you determine how and when you are ready to take advantage of the tools inherent in ePassports.

- What will the 'e' do for you that a traditional Machine Readable Passport (MRP) will not? Again, make sure you answer this question with the requirements to 'use' the ePassport clearly in mind.
- Are you prepared to take advantage of the extensive economies of scale (centralization) often accompanying ePassport implementation? Be careful what you wish for.
 Yes, there are most definitely economies and benefits of centralization, but these must be evaluated in terms of criteria such as customer service that may need to be subjected to tradeoffs.
- Have you considered the impact on overseas issuance?
- Are your border management procedures and processes equipped to deal with inspecting ePassports? In concert with the next section of questions, it is important for you to know that proper inspection must accompany ePassport issuance. Otherwise, as many experts have observed, the ePassport is merely an expensive toy.

... determine how and when you are ready to take advantage of the tools inherent in ePassports.

AM I PREPARED TO USE AN ePASSPORT SYSTEM?

This question demands a completely honest and realistic answer. One widely publicized hacker unknowingly did us a favour when he said his techniques would never work 'when attempted in a properly managed inspection system'.

- Are your inspection processes ready to use/made to use the cryptographic keys in the ePassport? Will you be able to carry out machine-assisted algorithmic comparisons of chip stored biometrics?
- Are you going to join the ICAO Public Key Directory (PKD) prior to ePassport implementation? Have you taken appropriate budgeting precautions to insure that your ePassport budget includes the PKD as a line item?
- Have you prepared your travelling public for the changes that biometric capture and use will bring about? The considerations inherent in this question include factors such as privacy. While sensitivities to these kinds of factors and concerns will vary from country to country, the impact on your citizens is substantial and for some countries has proven to be a near fatal omission.

OVERALL SYSTEM INTEGRITY: IS YOURS ENOUGH?

It is important to recognize (and accept) that much of your present system(s) will not be acceptable to merit the respect of an ePassport programme. Pursuing a fully ICAO-compliant passport programme will require modification or total replacement of some or all present approaches.

- Is the integrity of your current issuance and handling process consistent with and complementary to the technological advances of an ePassport programme?
- Are issuance Evidence of Identity procedures and safeguards as strong as the document you issue seeks trust and confidence in the identity of the bearer?
- Have you effected changes to insure respect for personal privacy and accuracy of biometric and other data?
- Have your human resources issues been thoroughly addressed?
- Do you comply with both the letter as well as the spirit of Doc 9303?
- Have you examined overseas application acceptance (not necessarily overseas issuance) considering inherent differences of culture, infrastructure and external pressures in overseas missions?
- Will emergency travel documents be a fraudster loophole?

MEASURES OF INTEGRITY

The value of an ePassport is measured by the trust and confidence those who must inspect it can place in it. The document's physical composition is one important aspect of inspiring this confidence. As well, the criteria applied in determining entitlement are very important considerations. There should be a level of comfort that the bearer and the document are both legitimate. This chain of trust has many links that must all support the collective foundation. The sum of these parts defines the integrity of your ePassport.

The following are a few variables for you to make certain are as good as they can be in your system:

- Human systems are your greatest strength and your greatest vulnerability. You must adopt a near to zero tolerance of weakness.
- Work atmosphere and environment must be conducive to insure that staff share in positive and effective resultsoriented values.
- Evidence of Identification is the foundation for trust of your passport. Make sure this foundation is not built of sand.
- Spoiled document handling and blank document controls are easily identifiable and quantifiable indices of care and attention to detail.
- In-house programme evaluation is a must on a continuing and regular basis. The ICAO Guide for Assessing Security of Handling and Issuance of Travel Documents provides you with a useful road map so that you can carry these assessments out.
- Penalties for passport-related violations in your country's legal/judicial system as well as the administrative penalties within your own organization must be of sufficient magnitude commensurate with the impact of mischief and malevolence of identity and related fraud.

CONCLUSIONS

The use of ePassports, when planned, deployed and inspected properly has proven to be of great value in improving both security as well as facilitation of the world's travelling public. The issues raised in this article and the questions you are charged with answering should lead to even more questions, especially as they relate to your own programme environment. When that questioning and introspection occur, this article has accomplished its intent.



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SWEDEN DEVELOPS ONE OF WORLD'S MOST SECURE ePASSPORTS





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and PKI

Birgitta Lindblom and Stefan Danielsson of the Swedish National Police Board have followed the evolution of the Swedish ePassport from ordinary travel document to 'electronic super ePassport'. This new ePassport has resulted in safer border controls and more effective work processes. Plus after connecting to the ICAO Public Key Directory (PKD), the Swedish ePassport is more secure than ever before.

"It's harder to manipulate the information that is stored on the ePassport's chip", explains Birgitta Lindblom, responsible for the PKD system at the Swedish National Police Board

"We had an ePassport that was controlled to a certain degree electronically but since the new system was put in place, we have access to the Public Key Infrastructure (PKI) certificates of other countries that enable us to have better and more secure controls", says Stefan Danielsson, Project Manager for the ICAO PKD project at the National Police Board.

When a border guard places the ePassport onto a reader, he/she will not only be able to view, for example, the photo, name and date of birth, but also determine whether the chip in the ePassport has been tampered with or not.

"The next step will be to check and match fingerprints", says Lindblom. "Then we can connect the holder to the ePassport, which also hopefully will prevent people selling or lending their ePassports to other people".

...access to the PKI certificates of other countries...enable us to have better and more secure controls.



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ICAN meetings also provide a unique forum where participants can learn about related ICAO guidance and exchange important information and views on the latest trends and issues in liberalization, all supporting a more multilateral and economically-viable global air transport sector. For more information please contact: ican2014@icao.int



ICAO PKD

Sweden held the Presidency of the EU Council of Ministers in 2009 and, during that time, was the driving force behind the proposal that every Member State should join the ICAO PKD.

"EU Member States could apply for economic support from the EU's External Border Fund", says Lindblom. "The monetary support we got made it possible for us to carry out the project and was also a strong argument when it came to internal budget and strategy prioritizations".

Sweden as country number 30 became a PKD member in December 2011. "We connected to the PKD as country 24", explains Danielsson. "Today there are 45 Member States in the PKD but we hope more and more countries will join and start exchanging certificates. The ICAO PKD gives us continuity in the exchange of these certificates and we can rely on always having the latest certificates and revocation lists".



From left to right: Christiane Der Markar, ICAO PKD Officer, Stefan Danielsson, Project Manager, ICAO PKD Project, Swedish National Police Board, Birgitta Lindblom, Deputy Head of Department, Swedish National Police Board, and Steve Berti, Chief of ICAO Security and Facilitation Policy (SFP) Section.





...Swedish exchange of certificates is handled automatically... via the ICAO PKD.

"Previously the exchange of the certificates was handled bilaterally between countries. This meant that we almost never had the latest certificates as the exchange relied on the people responsible for the certificates showing up at meetings with the certificates. We also had problems obtaining certificates from countries outside Europe. Today, the Swedish exchange of certificates is handled automatically with other countries via the ICAO PKD", says Danielsson.

For Lindblom and Danielsson, the ICAO PKD project has been a huge challenge. The system is both complex and technically advanced and demanded highly skilled developers and engineers. They struggled with prioritizing resources, budget cuts and questions about the meaning of it all. Why should Sweden join the PKD? Is it really necessary to spend the money when we already have one of the most secure ePassports in the world?

To Lindblom and Danielsson, the answer is YES!" The passport is a document that has to follow an evolution. We need to secure it so that we can stop people using it to pass through the border illegally. The more countries that connect to the PKD, the better border control will be".



YOUR IDENTITY IS UNIQUE. WE'LL HELP KEEP IT THAT WAY.

As global travel and border security gets ever stricter, it is our responsibility to ensure the ease of international travel through improved passenger experience, while enhancing security and increasing system-wide efficiencies. IRIS supports governments around the world by providing leading technology paired with competent and responsible consultation tailored to the specific national and international requirements airned at protecting the identity of travellers.

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MAXIMIZING CANADA'S ePASSPORT



In July 2013, Canada became one of the 100+ ICAO ePassport-issuing Member States. Justin Ikura, Deputy Director, Department of Citizenship and Immigration, describes Canada's experience with the ICAO Public Key Directory (PKD), the impact on relations with border management and Canada's plans moving forward to better integrate ePassport into the Canadian travel continuum and ensure it is both widely accepted and trusted, a central priority.

The ongoing and rapid adoption of the contactless integrated circuit chip passport (ePassport) presents opportunities to enhance the security of border management, while facilitating travel for document holders. Maintaining this balance is core to the mandate of the ICAO Traveller Identification Programme (ICAO TRIP) Strategy and remains at the forefront of the programme's technology and capacity-building agendas. While the integration of key digital features significantly enhances applications of ePassport in travel, countries must invest in and/or reconfigure their border management with the technologies and processes required to capitalize on the advantages afforded by the ePassport.

ICAO PUBLIC KEY DIRECTORY

The ICAO PKD is a key tool that may be applied in the process of border control to ensure that countries are fully benefitting from the issuance of an ePassport. The ICAO PKD provides member countries with a central location to share digital information that can be used by other members to verify that ePassports presented at border control are valid, issued by the country indicated and unaltered.





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Security laminate contains a variable size text spiral, animation effects and an embossed effect in shape of map of Canada to protect bearer's photograph.

Membership in the ICAO PKD continues to grow and currently stands at 45 members from around the globe. The growing interest and membership in the ICAO PKD is contributing to advancing the safety of international travel and furthering the core objectives of the ICAO TRIP Strategy.

Canada is a long-standing participant in the ICAO PKD, which it joined in 2007. In addition to membership, Canada is also a founding member of the PKD Board of Directors, established in 2007 to promote the ICAO PKD as a complementary solution to

ePassport deployment and to oversee its administration. In May 2013, Canada was re-elected to the PKD board by existing board members for another three-year term, re-affirming its valued role. While Canada has been both a participant and a PKD board member for seven years, its experience with ePassport issuance was limited to the issuance of diplomatic and special ePassports. On 1 July 2013, Canada became one of the more than 100 ePassport-issuing ICAO Member States by issuing 104 ePassports. Recognizing the value and rigour that ICAO PKD participation provides Canada will continue to leverage the ICAO PKD as an efficient distribution mechanism for the digital information accompanying issued ePassports.

Ongoing efforts to remain active in the ICAO PKD are linked to a number of national priorities. First, Canada recognizes the value of proactively sharing document information with its international partners, who may use it to facilitate the travel of passengers. Ensuring that Canadian travellers receive the full benefit of carrying an ePassport throughout their travels is critical as the new document comes with an added cost and longer validity.

Second, strengthening security of travel is a central objective for Canada and a number of countries that receive its travellers. The ICAO PKD provides Canada and other members with an effective and efficient mechanism to significantly improve the security of border management, while, at the same time, facilitating travel.

Finally, the ICAO PKD provides a cost-effective means to leverage more features of the ePassport, providing a return on investments made in moving from a machine readable passport to an ePassport. Combined, these factors have heavily tipped the scales in favour of continued support for the ICAO PKD.



Pages 2 and 3 of Canadian passport.

BUILDING SUPPORT WITH BORDER MANAGEMENT

Ensuring the ePassport is designed in such a way that it can be validated against information in the ICAO PKD, while actively sharing digital certificates and Certificate Revocation Lists is, however, only one part of the equation. Border control organizations must also be committed to using information stored in the ICAO PKD to ensure the State as a whole can benefit. Configuring border systems to perform this validation can, however, require additional investments. Accordingly, travel document issuing authorities, particularly those involved in the ICAO PKD, should be working to both collect and share information and best practices about the benefits and savings associated with automated border controls that can be realized when the electronic features of the ePassport are fully utilized.

CANADA'S EXPERIENCE

Now that Canada has nationally deployed its ePassport, it will continue to more aggressively explore ways to better leverage the investments made in its ePassport, which could include more fully integrating the ICAO PKD into the travel continuum. Both Canada's passport issuing and border management organizations are working together to assess the benefits and costs to fully



deploying the ICAO PKD domestically across the 132 air and land ports of entry. Canada's border control agency, the Canada Border Services Agency (CBSA), has expressed a keen interest in using the ICAO PKD as an underpinning feature of its border control processes that include a mix of automated and traditional passenger processing techniques. The CBSA will continue to automate processes in the Canadian traveller continuum and leverage recent

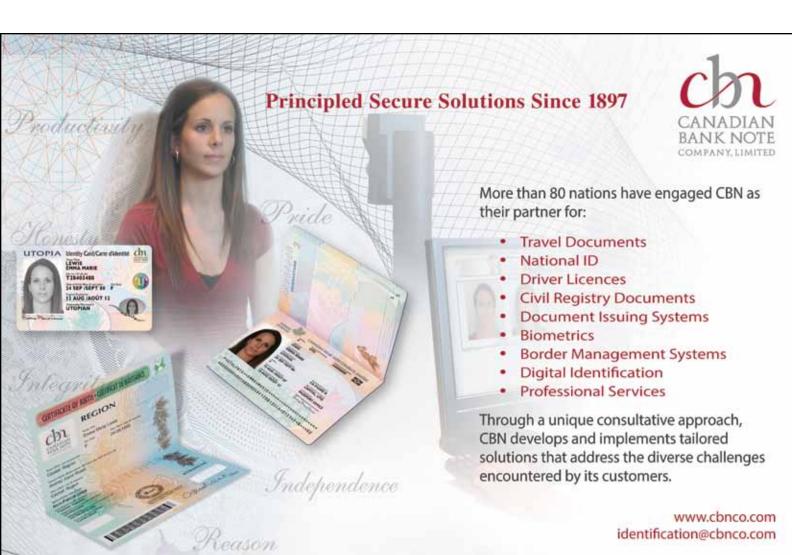
Government of Canada investments in biometrics in order to enhance the facilitation of travellers while maintaining security.

Recognizing that many other existing and potential ICAO PKD members could benefit from a similar review, Canada has suggested working with interested PKD board members to develop a border engagement strategy that could be used to identify all the barriers and solutions to ICAO PKD deployment. Canada, along with Ireland and New Zealand, will embark on a

fact-finding mission to determine what contributing factors prevent the use of the ICAO PKD and how they may be overcome.

The outcomes should be used to resolve any issues ICAO PKD members may be grappling with to secure buy-in from key implicated domestic stakeholders as well as encourage broader participation in the ICAO PKD. In addition to this work, Canada, in its capacity as a PKD board members, has also suggested the current recommended practice in Annex 9 to the Convention on International Civil Aviation, related to the ICAO PKD, be amended to encourage more active participation in the ICAO PKD. This proposal is still subject to the ICAO approval process for Standards and Recommended Practices, in this case, starting with the ICAO Facilitation Panel. Canada has managed to secure support from key international partners on the proposal and sees this initiative as an important way to further promote the ICAO PKD.

As more and more Canadians begin to acquire ePassports, the rationale for ICAO PKD deployment will inevitably strengthen. As it does, Canada's travel document issuing authority, the Department of Citizenship and Immigration Canada, will continue to work in close cooperation with the CBSA to identify ways to benefit from the ePassport, including strengthening the capabilities of automated border clearance systems across the country.



CENTRAL AMERICA: ENHANCING TRAVELLER IDENTIFICATION MANAGEMENT AND BORDER CONTROLS

Gap Assessments in Costa Rica and Honduras

Central America is located in a strategic area within the Americas that serves as a bridge between Northern and Southern States. These states share many features and challenges such as the current increase in cross-border migration. Today, this region lacks secure and robust identification management, a major vulnerability that tends to be exploited by terrorists and criminals. Gaps in identification management, lack of ICAO-compliant passports, use of various identification documents as travel documents non-compliant with ICAO Standards and Recommended Practices and irregularities in the issuance processes allow these terrorists and criminals to exploit weaknesses by obtaining authentic and valid passports to cross borders for illicit purposes.

Consequently, the linkages between national and regional security and border controls have driven governments to factor international organised crime and terrorism threats into their agenda and strengthen their migration and identity management capabilities. Indeed, the need for enhanced comprehensive border and identity capacity-building strategies has emerged as a priority for both individual governments and regional bodies.

In 2013, ICAO and the Central American Integration System (Sistema de la Integración Centroamericana, SICA), through its Central American Border Control Programme (SEFRO), undertook joint efforts to assist the Central American

Member States in combating terrorism and trans-border crime and preventing the use of false identities and fraudulent travel documents. SICA's objective is to achieve integration among the Central American States through common political and strategic initiatives that will help the region achieve peace, democracy, freedom, security and development. The lack of a framework that encompasses all identification management phases has become a strong challenge in the process of attaining an effective, efficient and lasting border security strategy.

The focus of this ICAO and SEFRO/SICA initiative, funded by the Government of Canada, is to help Central American States strengthen the capacity to improve their identification management, travel document security and border control systems. In particular, the joint effort aims to assist this region in overcoming their challenges while meeting their regional and international obligations. This includes the United Nations Security Council Resolutions 1373 and 1624, Standards contained in ICAO Annex 9 - Facilitation, Document 9303 -Machine Readable Travel Documents and other best international practices and standards on identification management, travel document issuance and border controls.

Both assessments relied on fact-finding from diverse sources....

This initiative will provide Central American States with assistance through gap assessment missions to Belize, Costa Rica, Honduras, Nicaragua and Panama. These five States did not benefit from technical visits carried out under the ICAO and OAS/CICTE three-year project. The assessment missions are based on the ICAO Traveller Identification Programme (ICAO TRIP) Strategy, which provides a systematic approach to capacity-building in all identification management phases: the issuance process, travel document security and border

controls. To date, two gap assessment missions have been carried out in Costa Rica (10-13 December 2013) and in Honduras (25-28 March 2014).

In both missions, the assessment team consisted of a lead expert, one official from ICAO and one representative from SEFRO/SICA. The scope of the assessments focused on the beneficiary State's passport issuance and personalization, including the integrity of the issuance process as well as Evidence of Identification required, such as 'breeder documents' like birth and death certificates and identification cards. The assessments also looked closely at all the documents used as travel documents within the region, such as each State's identification card.

Both assessments relied on fact-finding from diverse sources, including interviews with key policy and technical level officials and visits to sites at passport, immigration and civil registry offices. Both assessments were conducted in the spirit of collaboration with openness and support from all government agencies in Costa Rica and Honduras. All the information collected focused on compliance with ICAO Document 9303, the ICAO Guide for Assessing Security of Handling and Issuance of Travel Documents and good international practices in passport issuance and identification management.

The gap assessment missions helped to identify current and potential weaknesses in the administrative and operational capacity of both States as they relate to passport issuance and identification management, including the existence of inter-agency cooperation and data sharing. The mission made recommendations to all government agencies visited and, upon their implementation, will play an integral part in both States' ongoing improvements in their border control and security programmes, as well as future capacity-building initiatives.

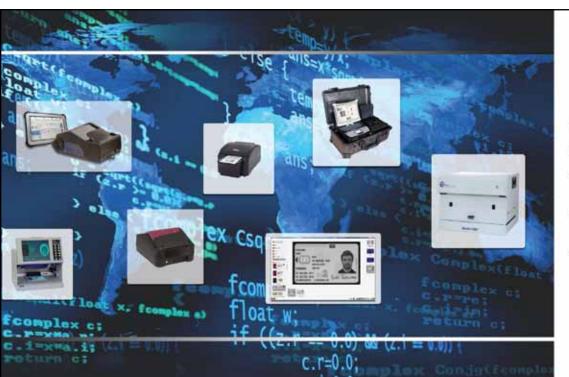


Costa Rica: Passport Office, Directorate General of Immigration, Citizenship and Naturalization (Dirección General de Migración y Extranjería).



Honduras: Passport Office, Ministry of Foreign Affairs (Oficina de Pasaportes del Ministerio de Relaciones Exteriores)

This Canada-funded project is an example of the joint efforts linking the needs of States, ICAO expertise, SEFRO/SICA initiatives and donor community resources.





- Express Document Verification
- Advanced Document Verification
- Machine Assisted Document Verification
- Information Reference Systems and Software
- Special Equipment and Customized Solutions



MRTD AND BORDER CONTROL NEWS

Germany

By the end of 2014, the Federal Ministry of Interior will implement ABC gates at Frankfurt, Munich, Düsseldorf and Hamburg airports, for a total of 90 e-gates. Other German airports will also be fitted with e-gate technology.

Malta

The long-awaited new electronic ID cards have started to be issued. With the government taking a gradual approach, 320,000 ID card holders will have their cards renewed in the near future.

USA

Orlando International Airport was the first US airport to roll out biometric kiosks to accelerate the arrival experience for passengers from visa waiver countries. The kiosks read passports and capture fingerprints and facial images.

UAE

Travellers entering and exiting the UAE who use the smart gate do not need to undergo prior registration or stop at passport control. UAE will have smart gates at all airports by 2015.

Nepal

The government will phase out handwritten passports by November 2015, replacing them with MRPs. Nepali missions in Australia, Qatar, Saudi Arabia and France recently urged all Nepalis holding ordinary passports to replace them with MRPs.

Gabon

Gabon is now issuing ePassports to its citizens. The new model of ePassport came into effect on 23 January.

India

Residents with handwritten or non-MRPs and 20-year duration passports with validity date beyond November 2015 will have to reapply for their passports to avoid any inconvenience in obtaining visas or immigration clearance. Beginning next year, ePassports will be embedded with biometric information to ensure greater security and transparency.

United Kingdom

The new generation of ePassport gates officially opened at London Gatwick Airport, replacing first generation gates. In the past year, 10 million passengers have used them across the UK with numbers totalling 1 million monthly.

Israel

Israel began a pilot programme fully operational by 2015 for a biometric database of ID cards and passports. In the first six months, 200,000 biometric passports and identity cards were issued.

Madagascar

To optimize controls at its airports, in December 2013 Madagascar introducted new ePassports. eReaders will be implemented in 2014.

Estonia and Finland

Estonia and Finland concluded an intergovernmental agreement, the basis for cooperation in e-government between the two countries. The Memorandum was the world's first digitally signed international agreement. Once pilot projects go public in 2014, the countries will offer bilateral cross-border e-services.

Georgia

Free ID cards were distributed to internally displaced persons and to teachers. A total of 75,000 free ID cards were issued.

Armenia

Effective 1 January, Armenian citizens were issued IDs with biometric data and biometric passports, replacing current passports. Citizens with regular passports can use them until the expiration date.

Uzbekistan

Uzbekistan's citizens will be able to travel abroad with biometric passports as of 1 July.

Tajikistan

As of 1 March, the Foreign and Interior Ministries issued ID cards, replacing internal paper passports for citizens. The Interior Ministry is in charge of collecting data and fingerprints, while the Foreign Ministry manufactures the cards.

China

The Ministry of Public Security certified silicon sensor readers for China's Resident Identity Card. The new China Resident Identity Card Law requires citizens to record their fingerprints when applying for, renewing or replacing resident ID cards.

Cambodia

The Ministry of Interior will provide electronic ID cards to 5.5 million citizens in the near future.

Sri Lanka

Sri Lanka plans to issue biometric ID cards to its citizens in the near future. The cards will include biometric data and security features to prevent counterfeiting, forging and tampering.

Malaysia

The Ministry of Home Affairs will issue biometric ID cards to 2 million foreign workers in Malaysia, making it easier for local authorities to track down illegal immigrants.

Philippines

Only ePassports will be accepted by immigration authorities beginning October 2015. The Bureau of Immigration installed 100 biometric capturing machines in its premiere airports and is expecting delivery of 299 passport readers.



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TURKISH FOREIGN MINISTRY'S ELECTRONIC VISA APPLICATION SYSTEM



ABOUT YASIN TEMIZKAN
He is a career diplomat, currently
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Consulate General in Jeddah,
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Directorate for Middle East
Affairs. Ministry of Foreign Affairs.

The Turkish Foreign Ministry developed the Electronic Visa Application System (EVAS) as an alternative to visas issued at its missions abroad and ports of entry to Turkey, explains Yasin Temizkan, Acting Department Head, Directorate for Information Technologies, Ministry of Foreign Affairs. In its first year, approximately 1.3 million e-Visas were issued through EVAS. Currently, citizens of 99 countries can obtain an e-Visa over the Internet within minutes. Users have been very satisfied with the application process, their feedback is used to constantly improve the system and the Foreign Ministry is willing to share its experiences with interested countries.

According to the United Nations World Tourism Organization (UNWTO), Turkey was the world's sixth most popular tourism destination in 2013—over 35 million foreigners visited Turkey that year. Nearly one third of the tourists visiting Turkey are required to obtain visas. There are currently three means of obtaining a Turkish visa: Turkish Embassies and Consulate Generals, visa counters at ports of entry and EVAS. While the first option remains available to all travellers, the other two are reserved for citizens of certain countries.

Prior to introducing EVAS, Turkey's visa practices proved problematic for five major reasons. First, every year over 10 million people, including the elderly, pregnant women, children and disabled citizens, had to spend up to two hours standing in line for a visa after a long exhausting trip to Turkey. Second, some people, who are normally eligible for visas on arrival, were not granted visas at the borders for various reasons and they had to travel back to their previous departure point.



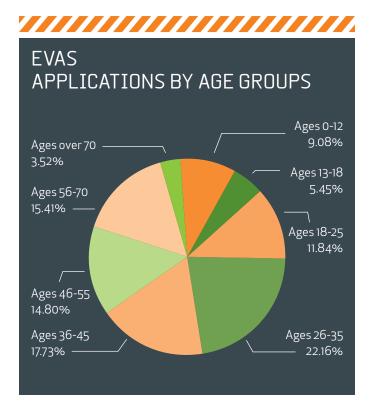
Third, people who were required (or preferred) to obtain visas prior to travel had to spend considerable time and energy on visa applications at Turkish missions. Fourth, some Turkish missions were so consumed by visa applications they did not have enough time for other important services. Fifth, foreigners who were ineligible for visas on arrival and who did not have a Turkish mission in their vicinity were unable to travel to Turkey.

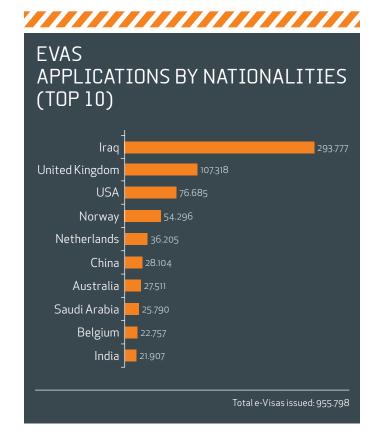
In response to these challenges, the Foreign Ministry developed EVAS using the latest information technology solutions and introduced it on 17 April 2013.

HOW DOES EVAS WORK?

EVAS covers all travellers who are eligible for visas on arrival. In addition, citizens of certain other countries are also entitled to apply for e-Visas. At the moment, EVAS serves citizens of 99 countries.

The e-Visa process takes an average of three minutes. Applicants must log onto www.evisa.gov.tr, enter information regarding identity and travel documents, confirm they meet e-Visa requirements, make an online payment (unless exempt from the visa fee) and download their e-Visas. No pictures or documents are required to be uploaded to the system. Applications are automatically processed and cleared through a database maintained by the Ministry of Interior before the e-Visa is issued. Visa fees are collected by a contracted bank and transferred to the Treasury.





e-Visa information is instantly shared with all ports of entry. As passport control officers at the borders can verify e-Visas in their system, travellers are not required to carry their e-Visas. However for offline verification, they are advised to have either a softcopy (on tablet, PC, Smartphone, etc.) of their e-Visas or a hardcopy in case of any failure in the system.

Applicants are notified their e-Visas are invalid if they do not meet specified e-Visa criteria. Companies offering air, land and sea travel services to Turkey are obliged to check their passengers' e-Visa validity and prevent invalid e-Visa holders from travelling to Turkey on their vessels. Checks to verify e-Visas can be conducted manually over the e-Visa website (https://www.evisa.gov.tr/en/status/) by entering an e-Visa reference number or a software system used by a company connected to the e-Visa system via a web service. For the second alternative, a protocol should be signed with the Foreign Ministry. Up to now two airline companies have concluded such protocols. As with other visas, e-Visas do not guarantee that the holder will be granted entry at the port of entry.

KEY EVAS DEVELOPMENT AND IMPLEMENTATION STEPS

 Analysis: While the Foreign Ministry took the lead role in designing the basic tenets of the application, the Ministry's EVAS team also consulted related government bodies and private sector representatives.

- Design and Coding: The EVAS team prioritized creating and coding a user-friendly design for the application.
- User Support: The EVAS team formed an online Support
 Desk to reply to written requests from users. In addition,
 the Foreign Ministry's existing Call Centre was empowered
 to answer EVAS-related inquiries.
- Launch: Initially, the application was made available to the public in Turkish and English.
- Development: EVAS has been modified and improved in line with users' feedback.
 - French, Spanish, Arabic, Chinese, Dutch, German, Polish and Norwegian languages have been added to the system;
- More countries are covered;
- Payment methods have been diversified;
- Certain companies offering air, land and sea travel services are authorized to apply for e-Visas on behalf of their customers over their own systems—this requires a protocol and any interested company is welcome;
- Group and family applications were made possible for tour operators and families; and
- e-Visa kiosks are located and free Wi-Fi areas were created at major Turkish airports for foreigners arriving in Turkey without visas.

EVAS is an in-house application of the Foreign Ministry. From analysis to user support, all aspects of the system are developed, maintained and improved by Foreign Ministry personnel comprised of administrative personnel, analysts, designers, programmers, testers and user assistants.

Approximately 1.3 million foreigners received e-Visas within the first year of EVAS and the system has proved to be effective in addressing difficulties encountered in other areas of the visa application.

e-Visa information is instantly shared with all ports of entry.

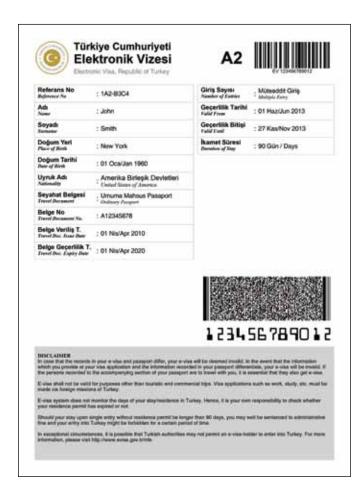


Secure documents in polycarbonate

Passport datapage Identity card Residence permit Crew member certificate Driving licence Tachograph cards







LESSONS LEARNED DURING IMPLEMENTATION OF EVAS

While EVAS is run by the Foreign Ministry, the Ministry of Finance oversees the process implemented by the authorized banks for a smooth flow of e-Visa fees. The Ministry of Interior is responsible for e-Visa validity checks at ports of entry and the Ministry of Culture and Tourism monitors the impact of EVAS in tourism. Efficient coordination among all the parties involved is critical for the success of the system. The Foreign Ministry ensures this coordination by monitoring the process closely, anticipating obstacles and addressing them in a timely manner and with the close cooperation of relevant parties.

Representatives of Turkey's tourism sector, such as tour operators and hotel owners, have continuously lobbied for easier visa procedures. The Foreign Ministry proactively reached out to engage these groups and address concerns regarding EVAS.

EVAS serves hundreds of thousands of people from all over the world. The Foreign Ministry believes their inquiries should be answered and the problems they face should be solved immediately. To this end, the e-Visa Support Desk and the Foreign Ministry's Call Centre respond to inquiries from users 24/7. Within the first year, approximately

The e-Visa process takes an average of three minutes.

55,000 written requests and 20,000 phone inquiries were received and answered. It is encouraging that most users send positive feedback.

Three comments, out of thousands from www.evisa.gov.tr/en/ comments/, are cited below to provide a better idea of users' experiences with EVAS.

- "This is not only the easiest way I have ever been issued a visa by any country, it is also the easiest online purchase of anything I have ever done. Fantastic job." S.C., USA
- "A very good design presenting clear, timely and precise information. A straightforward process with easy to follow steps. A very pleasant first impression of your country, which I very much look forward to visiting. Thank you". M. P., United Kingdom
- "I have a professional background in IT and communications and quite honestly this was one of the simplest, quickest and most user friendly experiences I've ever had with either e-government or online payment processing. Under three minutes to apply/pay for and receive my visa. Amazing!" R. B., Canada

It was not only users who praised EVAS. In December 2013, the system was recognized with Turkey's most prestigious e-government award: the eTR Award, Public e-Services category, which was presented to the Foreign Ministry by the Speaker of the Turkish Grand National Assembly at a ceremony held at the Assembly.

EVAS FOR OTHER COUNTRIES

Air transport and tourism are intrinsically linked to each other. According to UNWTO, in 2012, over one billion international tourists travelled the world, half of whom arrived at their destination by air. This number is expected to reach 1.8 billion by 2030. Likewise, based on ICAO's latest forecasts, aircraft departures are expected to grow from 30 million today to 60 million by 2030. These figures yet again underscore the importance of 'visa facilitation' for sustainable development of the air transport and tourism sectors. To this end, Turkey's EVAS provides a model application for other ICAO members and offers a number of advantages from easy passenger flow management at airports to security.

EVAS is a multilingual application and can easily be transferred to other countries. The Foreign Ministry, in principle, is ready to share its e-Visa experience with any interested country.

Symposium on Innovation in Aviation Security ICAO Headquarters, Montréal, 21–23 October 2014

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ICAO AND OAS/CICTE PROJECT IN AMERICAS SUCCESSFULLY IMPLEMENTED

Since December 2011, ICAO has been working with the Inter-American Committee against Terrorism of the Organization of American States (OAS/CICTE) on a project on capacity-building in travel document security and identification management in the Americas. This project was funded by the Anti-Crime Capacity Building Program (ACCBP) of the Department of Foreign Affairs, Trade and Development of Canada. The three-year project culminated in the Hemispheric Workshop held in Miami, Florida, on 26-28 February 2014.

The objective of this collaborative initiative between both organizations was to assist participating States achieve compliance with the Standards and Recommended Practices contained in ICAO Annex 9 – Facilitation, Document 9303 – Machine Readable Travel Documents and best international practices on travel document issuing processes. The project particularly focused on consolidating the States' capabilities to prevent terrorism and trans-border crime through enhanced cross-border cooperation and capacity-building to achieve effective travel document issuing and identification management systems through six sub-regional workshops and eight gap assessment missions (see Table 1).

Responding to the global driving forces and needs of Member States, the 38th Session of the ICAO Assembly last fall endorsed the ICAO Traveller Identification Programme (ICAO TRIP) Strategy that provides an holistic, coherent and coordinated approach to the identification management processes leading up to issuance of travel documents, crucial aspects that ensures the legitimacy of secure travel documents. During the sub-regional workshops and gap assessment missions, all related topics were analysed and understood from an identification management holistic perspective.

Project activities highlighted how border controls, travel document security and identification management were central to combating terrorism and trans-border crime. Today, the use of false identities and fraudulent travel documents remains a major vulnerability often exploited by trans-border criminal and terrorist networks. In the Americas, advocacy of MRTD Standards and technical assistance to States is a vital part of the ICAO TRIP capacity-building efforts and this project was an excellent example of this type of initiative.

The initial activities of this project, published in the 2012 MRTD Report Summer edition (Vol.7, No.2), highlighted the outcomes of the sub-regional workshops in Mexico (2011) and Panama (2012) and the technical gap assessment mission in the Dominican Republic (2012). The 2013 MRTD Report Fall edition (Vol.8, No.3) outlined the results of the sub-regional workshop for Colombia's Andean States (2013) and the two gap assessment missions in Trinidad and Tobago and Saint Lucia.

This article presents the last four events of this project: the Sub-regional Workshop for Chile's South Cone States (2013), two gap assessment missions in Peru (2013) and Paraguay (2013), South America, and the Hemispheric Workshop in the United States (2014).

TABLE 1: ICAO AND OAS/CICTE PROJECT IN AMERICAS

SIX WORKSHOPS	EIGHT GAP ASSESSMENT MISSIONS	
Mexico and Dominican Republic	Dominican Republic	
Mexico, December 2011	March 2012	
Central America	Guatemala	
Panama, February 2012	May 2012	
Northern / Western Caribbean	El Salvador	
Antigua and Barbuda, September 2012	June 2012	
Southern / Eastern Caribbean	Antigua and Barbuda	
Trinidad and Tobago, December 2012	November 2012	
The Andes	Saint Lucia	
Colombia, April 2013	April 2013	
Southern Cone Chile, September 2013	Trinidad and Tobago February 2013	
	Peru August/September 2013	
	Paraguay December 2013	

FOCUSING ON SOUTH CONE STATES

The last and sixth Sub-Regional Workshop, which was held 11-13 September in Santiago, Chile, was hosted by the Ministry of Foreign Affairs and Investigations Police of Chile. The workshop attracted 43 government officials from four ICAO Member States of the South Cone Region and one from the Andes Region (Argentina, Brazil, Chile, Paraguay, Uruguay and Venezuela), representing the national agencies responsible for passport issuance, civil registry and immigration services.

The Workshop emphasized the holistic approach of the issuance and handling procedures of travel document security and identification management. It also looked at the experiences of the participating States, as well as explored ways in which countries can self-assess their passport issuance processes by using the ICAO Guide for Assessing Security Standards for Handling and Issuance of Travel Documents.

The Workshop was led by international technical experts from various fields of identification and border management and travel document security. The sessions provided topical and case study presentations on aspects of travel document issuance processes and security, assessment of security and handling/issuance of travel documents, Evidence of Identification and border management and control. The sessions were designed with a

participative format that encouraged discussions on the various topics between participants and experts. Consequently, all Workshop sessions were interactive and characterized by continuous information sharing.

The five Workshop sessions focussed on:

- Issuance of secure machine readable travel documents (MRTDs) and electronic MRTDs (eMRTDs), according to ICAO Standards and Specifications;
- Specifications of implementing ICAO-compliant ePassports;
- ICAO's new holistic traveller identification management approach (ICAO TRIP Strategy) and its relation to the entire supply chain process of issuing travel documents;
- Evidence of Identification and improving and modernizing national civil registry systems and introducing secure birth certificates and/or other breeder documents;
- Addressing vulnerabilities in travel document issuance processes;
- Enhancing the technical knowledge and security awareness of immigration and passport staff in order to empower them to perform their daily duties in an informed and professional manner;
- Strengthen cross-border cooperation between South Cone and Andean States and consolidate their efforts in identification management and border security by outlining the need to work towards managing and controlling their joint borders;

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Participants at Chile's Sub-regional Capacity-Building Workshop.



Peru: National Registry of Identification and Marital Status (Registro Nacional de Identificación y Estado Civil)



Participants at Paraguay's gap assessment.

- Effective and reliable practices of verifying travel documents at borders:
- Guidance, capacity and tools from discussing a case study using the ICAO Guide for Assessing Security of Handling and Issuance of Travel Documents;
- Discussing the practicalities, benefits and difficulties of self-assessing their State's issuance processes using the ICAO Guide for Assessing Security of Handling and Issuance of Travel Documents; and
- Roundtable discussions concerning travel document security, identification management, Evidence of Identification and border control.

Workshop participants expressed a lot of satisfaction with the discussions and outcomes, which included: a strong need to increase the interoperability and collaboration among national, regional and international agencies; continue improving document security and identification management processes; fundamentally promote inter-agency and cross-border cooperation; and the elevated need for technical capacity-building assistance. The outcomes obtained throughout the Workshop were intended to help develop future capacity-building initiatives for the States in this region.

GAP ASSESSMENTS IN SOUTH AMERICA

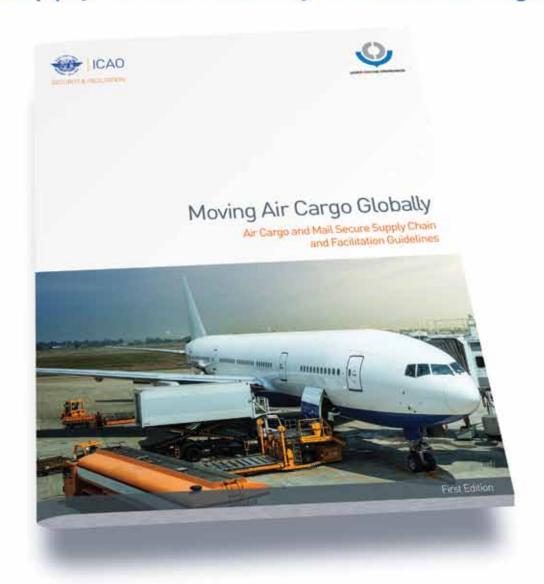
The last two gap assessment missions took place in Peru on 27-30 August 2013 and in Paraguay on 3-6 December 2013. In both missions, the assessment team consisted of a lead expert and officials from ICAO and OAS/CICTE. The scope of each assessment focused on the State's passport issuance and personalization processes including its integrity, as well as the legitimacy of the Evidence of Identification used such as 'breeder documents' chiefly for the registration of 'life events' like birth and death records and other documents used as travel documents in the region.

The methodology included visits to key targeted sites like passport, immigration and civil registry offices, as well as the study of background documents, legislation and other sources. The information collected focused on compliance with ICAO Document 9303 and good international practices in passport issuance and identification management.

The objectives of the two gap assessment missions were:

- Assess passport and issuance processes, taking into account the State's compliance with ICAO Standards, specifications and good international practices;
- Examine national identification management as it relates to the issue of travel documents and also 'breeder documents', including birth and death certificates and national identification cards; and
- Identify any current or potential weaknesses in the administrative and operational capacity as these aspects relate to passport issuance and identification management and make recommendations to government agencies for consideration and action.

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The new and free-to-download ICAO-WCO Moving Air Cargo Globally reference guide promotes awareness of the air cargo and mail supply chains, with an emphasis on the related security and facilitation procedures developed by the International Civil Aviation Organization (ICAO) and the World Customs Organization (WCO).

This document familiarizes readers with the roles and responsibilities of all local, national and international stakeholders and is an invaluable source for anyone looking to enhance the movement of goods by promoting effective end-to-end supply chain security. For your free download in any of ICAO's six official languages, please visit:

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...all related topics were analyzed and understood from an identification management holistic perspective.

Both gap assessments were open and transparent, which added to the success and relevance of the missions. Overall, the gap assessments provided a comprehensive view into the administrative and operational capacity of government agencies visited in Peru and Paraguay, including inter-agency cooperation, with particular reference to all identification documents used for travelling within the region. All the recommendations focused on helping both States improve their border control and security programmes.

CLOSING EVENT

The Hemispheric Workshop, ICAO and OAS/CICTE project's last event, was held in Miami, Florida, on 26-28 February 2014. The Workshop was attended by 67 government officials from agencies responsible for passport issuance and immigration services from 32 ICAO Member States. Participating States included Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Colombia, Costa Rica, Chile, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, St. Kitts and Nevis, Saint Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay and Venezuela.

The objectives of this final Workshop were to:

- Provide the findings, lessons learned and conclusions of the three-year project;
- Present ICAO's new holistic traveller identification management approach (ICAO TRIP Strategy) endorsed by the Assembly's 38th Session in September 2013;
- Inform participating States about the capacity-building projects, training courses and programmes on travel document security, identification and border control management that are developed and implemented at both sub-regional and regional levels in the Americas Region; and
- Determine among participating States future steps that will increase inter-agency and regional cooperation, as well as information sharing on travel document security and identification management.

Representatives from the international and regional organizations and the Government of Canada delivered presentations on their current initiatives, projects and programmes implemented in the Americas Region. Colombia,



Participants at Florida's Hemispheric Workshop

Costa Rica, Dominican Republic and Trinidad and Tobago also made presentations on their experiences, lessons learned and new initiatives developed after participating in the activities of this project. Each session provided presentations on the work required to achieve integrated and effective identification management systems. The last session provided States the opportunity to discuss the challenges faced sub-regionally and determine ways to overcome and mitigate these deficiencies.

The main outcomes achieved during this Workshop included:

- Raised awareness about the importance and current main MRTD compliance challenges in meeting the 24 November 2015 deadline (Standard 3.10.1, Annex 9);
- Provided participating States with guidance, best practices and tools to assist them with improving their identification management, passport issuance and border control processes and systems (ICAO TRIP Strategy);
- Discussed with participating States the findings and recommendations generated throughout the implementation of the three-year project;
- States shared their experiences and benefits gained from participating in the project's activities (sub-regional workshops and/or gap assessments); and
- Discussed future capacity-building initiatives and the next steps that will help each sub-region—North America, Central America, South America and the Caribbean—overcome their challenges and difficulties.

At the end of the Workshop, participants verbally expressed their gratitude, satisfaction and fulfilment with this final event, as well as with the project as a whole. This valuable project was possible thanks to funding provided by the Government of Canada. All the outcomes generated throughout the project served to identify, improve and develop future initiatives that will help States strengthen cross-border cooperation and improve the identification, travel and border security systems of all participating States.





Partnering on e-Learning



Air Transport Statistics - ICAO (Introductory)

In the first Air Transport Statistics e-learning course ICAO-CAE will provide basic training on international air transport statistics focusing on standard terminology used, how data is collected and what it represents. Participants will be introduced to some of the most important data series that ICAO collects and learn where the data originates, how the different data series may relate to each other and how to verify that the data submitted conforms to the instructions and definitions pertaining to each data series presented.

This course fills a vacuum which has been created over the last decade as some of the international and regional organizations that once provided basic guidance material on air transport statistics to the industry have ceased to do so.

Important: The support document required for this course is:

The Companion Document to the Air Transport Statistics Course

This must be purchased from ICAO before subscribing.



Air Transport Economics and Regulation - ICAO (Introductory)

Air transport development can sometimes diverge with policy objectives and become a highly contentious topic. This course is designed to provide a clear foundation of the underlining principles of airline and airport economics as well as to address aviation regulatory and policy issues. It is a useful introductory course for junior aviation experts in their early career development in the air transport industry or government regulatory bodies. Professionals working in related fields such as finance, economic development or tourism will find this course helpful in their dealings with airline/ airport issues.

Important: The support documents required for this course are:

Doc 9626 - Manual on the Regulation of International Air Transport and

Doc 9587 - Policy and Guidance Material on the Economic Regulation of International Air Transport

These must be purchased from ICAO before subscribing.



Forecasting for Air Transportation - ICAO (Introductory)

The air transport world faces major challenges in addressing high fuel prices while catering for demand which is showing greater volatility than in the past. Airports increasingly present a major infrastructure constraint to meeting the demand for air travel and many are already severely congested while the airline industry remains fiercely competitive. A thorough understanding of the nature of demand coupled with the knowledge of how to effectively manage capacity will be essential for success in this fastchanging commercial environment. Measures to expand airport capacity will be considered in relation to both terminals and runways and the interaction with surface transport. This course aims to address key demand and supply issues, assess forecasting methodologies and discuss future strategies.

Important:

The pre-requisite for this course is the:

Air Transport Statistics Course

The support document required for this course is:

Doc 8991 - Manual on Air Traffic Forecasting

This must be purchased from ICAO before subscribing.

MAKING IDENTIFICATION MANAGEMENT MORE SECURE: ESTONIA-FINLAND DATA SHARING INITIATIVE



In December 2013, the Prime Ministers of Estonia and Finland signed a cooperation memorandum to give Finnish authorities access to the Estonian X-Road source code and services. Finland had decided to create its own e-services solution along with a data exchange environment similar to Estonian X-Road, explains Helar Lasik, Chief Expert, Estonian Police and Border Guard Board, Citizenship and Migration Department, Personal Identity and Documentation Bureau. The X-Road backbone data exchange layer allows secure web-based data exchange between the various information systems of a state. This memorandum was the first international agreement in the world that was digitally signed by ID cards issued in different countries by different authorities—taking cooperation in information and communication technology between Finland and Estonia to a new level.

Riku Jylhänkangas, Director of the Strategic Governance of the Finnish Public Sector ICT, says, "We are planning to thoroughly study the Estonian X-Road. This is not just about the source code but also about understanding the organization and agreements that create the frameworks for this technology. We are also hoping to test cross-border services". The Finnish Information Society Strategy was adopted in 2012 and the development of the information society is the priority of all ministries. The ICT cooperation between Estonia and Finland had been under discussion since spring 2013.

Jaan Priisalu, Director General of the Estonian Information System's Authority (RIA), says, "We are hoping to reach the milestone of the first functioning cross-border e-services that would serve as an example for the whole of Europe. For example, digital signatures or electronic tax operations that are valid in a cross-border framework would save a lot of time and money for everyone".

Since the memorandum was signed, the first tests of cross-border data exchange using the X-Road solution between the two nations' tax authorities have already been conducted.

X-ROAD

Building an Estonian eGovernment started in the early 90s. The public sector understood that modern technology could help them offer better e-services and numerous organizations started to develop their own information systems. Quite soon it became evident that collecting the same data in different places was expensive and the quality of the duplicated data was not of the same standard in every place. Thus a project called the X-Road, the crossroad where systems can meet each other, was created.

With the X-Road backbone data exchange layer allowing secure web-based data exchange between the various information systems of the state, both citizens and officials can have 24/7 access to the state registers.

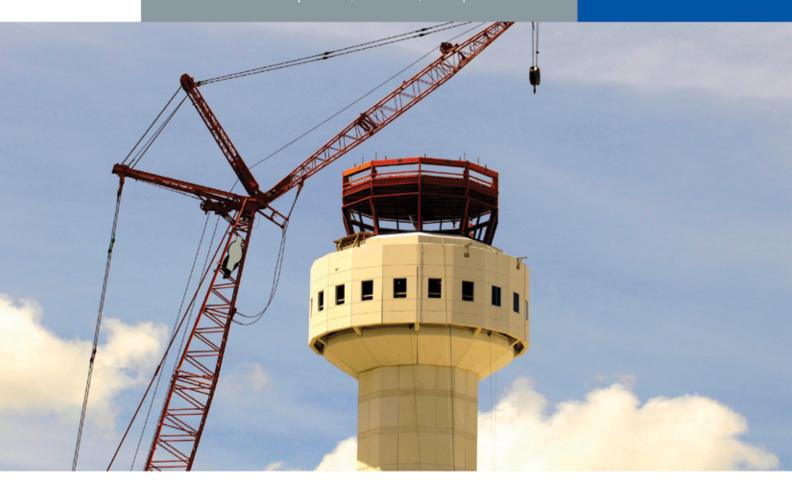
The X-Road system was introduced in Estonia in 2001 and is based on open source software. Tight communication between components of the data exchange layer makes offering complex services possible. Originally the system was used for making queries to different databases. Now it is a tool to write to multiple databases, transmit large data sets and perform searches across several databases. Currently there are more than 800 organizations, public registers and databases connected to the X-Road and this number is increasing.

In the case of our citizens, they are able to use the X-Road services via different portals, which include making enquiries from state databases and controlling the information related to their personal information. Our officials can use the service in the information systems of their own institutions, for instance, the Document Exchange Center. This facilitates their work since it avoids the labour consuming processing of paper documents, large-scale data entry and data verification. Communication with other officials, entrepreneurs and citizens is faster and more accurate.

Here's an example: e-Police equipped patrol cars require information about a driver or vehicle from several databases simultaneously such as a driver's picture from the Citizenship and Migration database, the statuses of the car's technical inspection and driving rights from the Estonian Road Administration database and car insurance data from the Estonian Traffic Insurance Fund database. All those requests are logged and unlawful data mining is prevented.

One of the key elements of e-Estonia is its databases are decentralized...





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One of the key elements of e-Estonia is its databases are decentralized, which means:

- There's no single owner or controller.
- Every government agency or business can choose the product that's right for them.
- Services can be added one at a time, as they are ready.
- Data doesn't need to be copied. It is created, processed and available in the same place.

"In the future, a solution similar to the X-Road will benefit Finnish citizens and enterprises as it definitely allows offering public services faster and at less cost", explains Jylhänkangas. Giving Finnish Police access to the Estonian Population Register prevents the easy creation of double identities in Finland based on inaccurate data.

If the Estonian-Finnish cooperation proves successful, citizens will not have to repeatedly submit data that they have already filed in the other country. For instance, entrepreneurs will no longer have to prove, in both states, the absence of tax arrears and persons desiring to work officially in Finland will no longer have to submit a paper copy of the pension insurance certificate every year.

Estonian Prime Minister Andrus Ansip says, "Saving time also helps to save money. In Estonia, we save time worth a total of 2% of the annual gross domestic product by using digital signatures—that's equivalent to saving one week of working time per person".

REASON FOR SUCCESS

RIA along with Finland is implementing the X-Road solution as the 'Palveluväylä' project and it was decided to develop it together in the future. The solution hasn't been competing hard with big global IT companies. Success came with creation of an operative scalable middle layer solution that had proven itself over the years, an off-the-shelf product ready for implementation that didn't need any mid- and large-scale development. Estonia has its own X-Road centre and Finland has its own. In the near future, various X-Roads will be able to communicate with each other. All other countries are welcome

BRITISH INITIATIVE

Both countries' IT constitution and performance were under discussion at a meeting between the UK government's Chief Technology Officer Liam Maxwell and RIA Director General Jaan Priisalu on 8 October 2013. "Britain is interested in Estonia's X-Road solution, the state portal 'eesti.ee' and RIHA, the administration system for the state information system", RIA reports. The British



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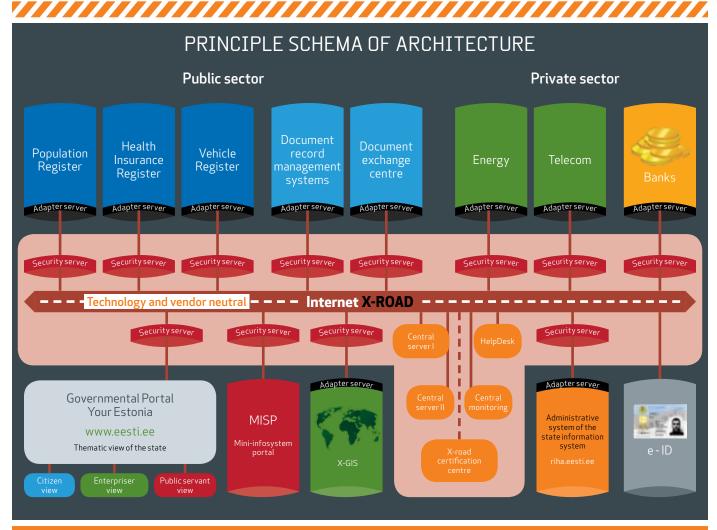


Figure 1: Estonian X-Road Structure.

Courtesy of the Estonian Information System's Authorit

intend to analyze the X-Road solution for implementation in UK systems. For now, the first pilot projects using the X-Road have been successfully finished and new plans laid down.

FUTURE

In 2013, Cybernetica, in cooperation with RIA as the contracting authority, started developing the next generation of the X-Road together with the Competence Centre in Electronics-, Info- and Communication Technologies. One of the main motivations behind this effort was the need to also exchange data over the X-Road with other countries.

The initial pilot projects with Finland commenced in 2014, starting with data exchange over the borders between the tax boards and social insurance agencies.

Cybernetica, with support from several other Estonian companies, has collaborated since summer 2013 in an X-Road pilot project with the Finnish company, Kuntien Tiera OY. The outcome of the project

will be to deploy the X-Road for Finnish municipalities and connect several registers to it. This project will provide technological insight for the Finnish authorities, together with understanding the necessary legal agreements and the need for unified requirements.

It is hoped that the X-Road model will attract interest in the rest of the Baltic Sea region and thereafter elsewhere in Europe. This might, in turn, open up new business opportunities for IT companies from both Estonia and Finland.

The X-Road's data exchange layer could also find a place in other countries across the continent. Today, there isn't much regulation or rules in the way information is exchanged, but with the X-Road the process would be much more consistent, systematic and a lot safer, of course. During the next few years, it's unlikely the system will be deployed around Europe though. A lot of countries have different architecture and a different understanding of privacy and safety. The European Commission is looking for a unified vision and the European Union is working on it.

Tenth Symposium and Exhibition on ICAO MRTD Biometrics and Border Security



Tenth Symposium and Exhibition on ICAO MRTD Biometrics and Border Security

Montreal, Canada - 7-9 October 2014

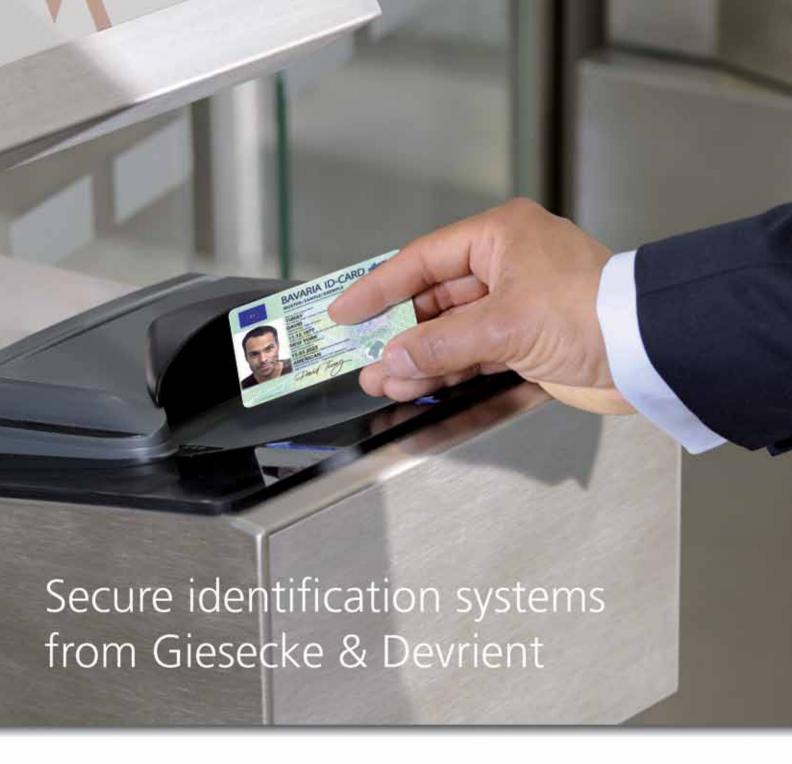
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For more information you can visit http://www.icao.int/Meetings/Pages/upcoming.aspx or contact:

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