

PKI Progress in the second half of the year 2023 in Japan

November 27, 2023

**GMO GlobalSign K.K.
Atsushi INABA**

1. Government related Updates

1.1 International perspective

(1) G20 : Engaged in G20 related event in India

- In the "Global DPI Summit " as one of speakers at the session "PKI for DPI"

(2) EU : Agreement in principle

- Japan-EU EPA "Free Flow of Data" Provisions

1.2 Domestic perspective

(1) Individual Number Card related topics

- Number of Individual Number Cards Issued/Held
- New feature : JPKI for Smartphone

(2) Trust services involving the government

- eSeal

Continued on the next page

2. Updates in the Private Sector

- ◆ **The acceleration of research and consideration for the realization of a trust service environment, mainly by the IT industry-related organizations such as JDTF (Japan Digital Trust Forum) , JNSA (Japan Network Security Association) , and academic institution such as Keio University**

[Representative Outputs]

- **Creation of Guidelines and Research materials**
- **Symposiums held with the cooperation of the Japanese government**

1. Government related Updates

“Global DPI (Digital Public Infrastructure) Summit ”



Held as G20 Side Event on 12-13 June 2023, in Pune, India

[Cited from] <https://dpi.negd.in/>

Proposed concept from Japan

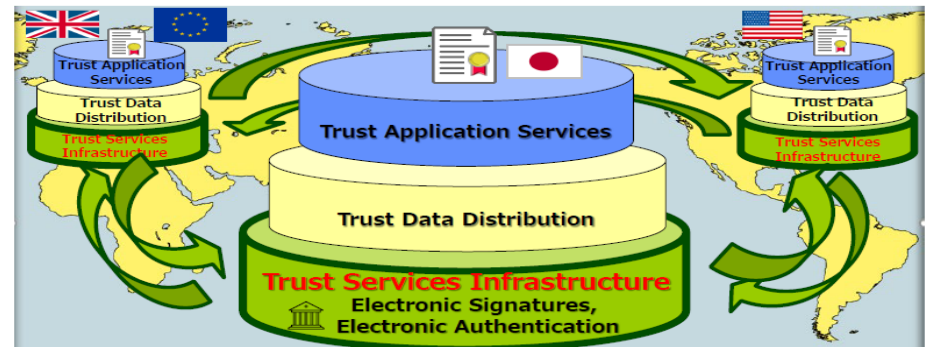
Day 2 Session 2: Public Key Infrastructure (PKI) for DPI

This session deliberated upon the issuance and management of the digital certificates in a secure and scalable environment. Deliberations would be made on the global good practices that will aid in smooth rollout of initiatives for effective public service delivery.

The esteemed dignitaries and panellists discussed about the issuance and management of the digital certificate and digital signatures in a secure and scalable environment. The deliberations touched upon global good practices that will aid in smooth roll out of global mutual recognition framework. Discussion also touched upon the use case in India, Japan, and Kenya.

2. Concept of International Mutual Recognition

- DFFT is realized with Three-Layered Architecture
 - Trust Application Service Layer: Input/Output of data and use of data
 - Trust Data Distribution Layer: Securely exchange data with entities
 - Trust Service Layer: Trust by preventing tampering and spoofing
- International Mutual Recognition of Trust Service Infrastructure

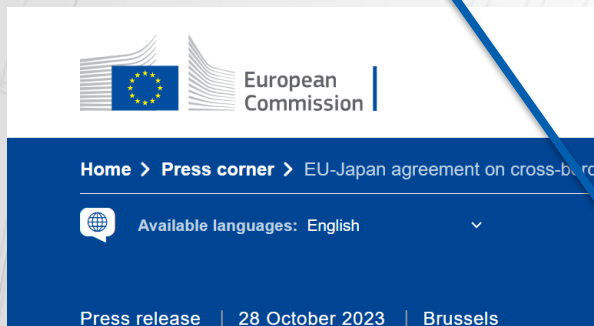




[Cited from] <https://www.indiastack.global/wp-content/uploads/2023/07/GlobalDPISummitReport.pdf>

Japan-EU EPA “Free Flow of Data” Provisions

[Cited from] https://www.meti.go.jp/english/press/2023/pdf/1028_003a.pdf

“Contribute to the realization of the Data Free Flow with Trust (DFFT) concept advocated by Japan as an example of advanced digital trade rules that promote sound development of the digital sector.”





Agreement in Principle Japan-EU EPA “Free Flow of Data” Provisions

October 2023

1. Background

- ◆ The Japan-EU EPA stipulates that **the need for inclusion of provisions on the “free flow of data” shall be reassessed within three years of the date of entry into force of the Agreement (Article 8.81)**. Based on this Article, negotiations began in October 2022.
- ◆ On October 28, 2023, **at the 4th Japan-EU High-Level Economic Dialogue, the Ministers of Japan** (Ms. KAMIKAWA Yoko, Minister of Foreign Affairs, Mr. NISHIMURA Yasutoshi, Minister of Economy, Trade and Industry) **and the EU** (Mr. Valdis Dombrovskis, Executive Vice President of the European Commission for an Economy that Works for People, European Commissioner for Trade) **confirmed the agreement in principle on the negotiations**. Both sides consented to accelerate procedures towards an early signing of the amendment to the Agreement.

2. Overview of provisions

- ◆ **Commitment to ensuring the cross-border transfer of information**
- ◆ **Obligation not to adopt or maintain measures which prohibit or restrict cross-border transfer of information, such as data localisation measures**
- ◆ **Ensured room for appropriate policy measures in exceptional circumstances from the viewpoint of personal information protection and legitimate public policy objectives**

3. Values

- ◆ **Ensure predictability** through the development of rules and contribute to the facilitation of cross-border transfer of information between Japan and the EU.
- ◆ Contribute to the promotion of the use of e-commerce and digital technology by about 600 million people in Japan and the EU and **serve as a foundation for business facilitation in the huge digital market in Japan and the EU, thereby contributing to strengthening economic ties between Japan and the EU as like-minded partners.**
- ◆ **Contribute to the realization of the Data Free Flow with Trust (DFFT) concept advocated by Japan as an example of advanced digital trade rules that promote sound development of the digital sector.**

EU and Japan conclude landmark deal on cross-border data flows at High-Level Economic Dialogue

[Cited from] https://ec.europa.eu/commission/presscorner/detail/en/ip_23_5378

Individual Number Card related topics

Number of Individual Number Cards Issued/Held

< As of the end of March 2023 >

Population as of
January 1, 2022

125,927,902

Number of
Cards issued

84,399,025

Percentage of the
population served

67.0%



< As of the end of October 2023 >

Population as of
January 1, 2022

125,416,877

Number of
Cards held

91,151,168

Percentage of the
population served

72.7%

[Cited from] https://www.soumu.go.jp/kojinbango_card/kofujokyo.html

New Feature : JPKI for Smartphone

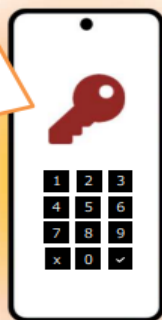
Electronic Certificates on Your Smartphone

- By implementing smartphone electronic certificates, we enable seamless online administrative procedures to take place at any time and from any location.
- Our objective is to enhance the flexibility and accessibility of the Japanese Public Key Infrastructure, making electronic certificates on smartphones indispensable in everyday life, thereby advancing secure identity verification. [This service is now available on Android phones \(launched 11 May 2023\).](#)



(Before)
Scan your "My Number Card" on
mobiles and IC card readers.

Enhance
convenience of
smartphone with
biometric verification



Digital Agency

Smartphone support will be gradually extended to the listed services.

Use of Mynportal



Childrearing support



Moving



Tax returns



Medicine and medical checkup information



Maternal and Child Health Handbook



Vaccinations

Applications and usage of various private services



Banking and Securities, Account opening



Applying for mobile phones



Cashless payment application

Others



Convenience store printing



Health insurance card

9

Cited from the website of Digital agency :https://www.digital.go.jp/assets/contents/node/basic_page/field_ref_resources/b9dd81e2-93ec-4e4e-bea7-df9718390785/9e31ef07/20231113_globalsite_mynumbercard_outline_01.pdf

■ eSeal

- In September, the MIC (Ministry of Internal Affairs and Communications) launched a study group on e-seals consisting of experts from the private sector and government members, and has begun discussions toward the establishment of a government certification system of the eSeal.
- Supplementary explanation
 - eSeal is an electronic version of a company seal utilizing digital signature that is associated with legal entities. eSeal is used to ensure the origin and integrity of data.

2. Updates in the Private Sector

About

[Japan Digital Trust Forum (JDTF)]

“Outline of Business

1. Research and study on Digital Trust
2. Cooperation with government and policy recommendation on Digital Trust
3. Dissemination and awareness-raising concerning Digital Trust
4. In addition to those listed in the preceding items, other businesses necessary to achieve the purpose of the corporation”

-Cited from- <https://jdtf.or.jp/en/about/profile/>

[Japan Network Security Association (JNSA)]

“What is the JNSA?

The goal of NPO Japan Network Security Association (JNSA) is to promote standardization related to network security, and to contribute to greater technological standards in the field, enhancing the public welfare through awareness, education, research and information-dissemination activities related to network security. At present, the Association is comprised of many different working groups carrying out different facets of the Association's charter.”

-Cited from - <https://www.jnsa.org/en/aboutus/>

About

[Keio University Cyber Civilization Research Center (CCRC)]

“Internet becomes one of the crucial infrastructures of today’s society, activities on the Internet should be safe and secure. To realize such an environment, we should develop not only the technology, but also the management scheme of organizations, social systems, and legal systems.

This research center conducts research and development of a wide range and comprehensive cyber security measures. Under these circumstances, our researches mainly focus on the following areas:

1. Develop technology and operation scheme for Distributed Security Operation Centers
2. Develop technology and system for Trusted Digital Society
3. Develop eco-system for human development on security

These results are not only technically evaluated but are utilized and evaluated by people and society.”

-Cited from- <https://www.ccrk.keio.ac.jp/research/cybersecurity-lab/>

Representative Outputs

[Publication of document in English]

- **Supply Chain Reform WG White Paper 2.0**
- by Japan Digital Trust Forum on November 16
<https://jdtf.or.jp/en/report/whitepaper/>

[Symposium]

- **13th International Cybersecurity Symposium**
“National Security, Economic Security, and Societal Security through
Multilateral Public-Private Partnership Actions”
- by Keio University on October 25 – 27
https://www.csrc.keio.ac.jp/13th-international-cybersecurity-symposium_en/
- **Trends in Trust Services in Europe and Japan**
“eIDAS Regulation and EUDIW (EU Digital ID Wallet) Status”
- by Japan Network Security Association on November 15
<https://maturi-eswg-jnsa.connpass.com/event/300560/>
*Contents in this page are Japanese language only

Thank you