PKI Situation in Japan



Asia PKI Consortium

Atsushi Inaba – June 21, 2019 atsushi.inaba@globalsign.com



Table of Contents

1. Digital Certificates issued under the law

- (1) For Representative of Juridical Person
- (2) For Natural Person
- (3) For Individuals [nicknamed JPKI]

2. Penetration status of Digital Certificates

- (1) Publicly Trusted Digital Certificate
- (2) Private CA

3. Remarkable Topics

- (1) Government's Interest in the Trust Services
- (2) Attempt towards International Mutual Recognition

1. Digital Certificates issued under the law

- 1. Digital Certificates issued under the law
- (1) For Representative of Juridical Person
 - Public Certification Service for Representative of Juridical Person under Commercial Registration Act
 - Digital certificate is issued by Japanese Government
 - Utilization field: B to G

1. Digital Certificates issued under the law

- 1. Digital Certificates issued under the law
- (2) For Natural Person
 - Public Certification Service for Natural Person under Act on Electronic Signatures and Certification Business Public Certification
 - Digital Certificate is issued by Governmentaccredited organization
 - Utilization field: B to G \ B to B

1. Digital Certificates issued under the law

- 1. Digital Certificates issued under the law
- (3) For Natural Person / Individuals [nicknamed JPKI]
 - Public Certification Service for Individuals under Act on the Use of Numbers to Identify a Specific Individual in Administrative Procedures
 - Digital certificate is issued by Japanese Government
 - Utilization field: C to G . B to C

2. Penetration Status of Digital Certificates

- 2. Penetration Status of Digital Certificates
- (1) Publicly Trusted Digital Certificate
 - Around 10 CAs (Private Enterprises) are providing various types of Digital Certificates to Japanese market. Those are; SSL/TLS(EV,OV,DV),Code Signing, AATL, Client Certificate, (IoT).
 - **The function/value of them have been recognized , though little by little.
 - Some CAs are issuing TSA/TA Certificate (Only for Timestamp related service providers).

2. Penetration Status of Digital Certificates

2. Penetration Status of Digital Certificates

(2) Private CA

- There are not a few demands for establishing the closed business community by developing/utilizing Private CA.
- ****The issue is how the private CA operator can gain the community members' trust for CA management.**
- On the other hand, the utilization of digital certificate into IoT field are almost implemented by private CA.
- ****Generally, the requirements for publicly trusted certificate are not fit for the requirements for IoT related digital certificates.**

3. Remarkable Topics

3. Remarkable Topics

- (1) Government's Interest in the Trust Services
 - Japan-EU ICT Strategic Workshop in Vienna (Dec. 2018)
 - ****Participants:**
 - [Japan] Governments, Economic Organizations, ICT related Forums [EU] EU Commission, DG Connect, Digital Europe, EU Signature Dialog
 - **X** It was agreed to start mapping process between eIDAS regulations and Japanese legislations based on actual "Use Cases".
 - Study Group on Trust Services was formed by the Government
 - **X Studying current situations and issues related to Trust Services in Japan.**
 - ※ Remote Signature, Timestamp, eSeal, eDelivery and QWAC have been discussed so far.

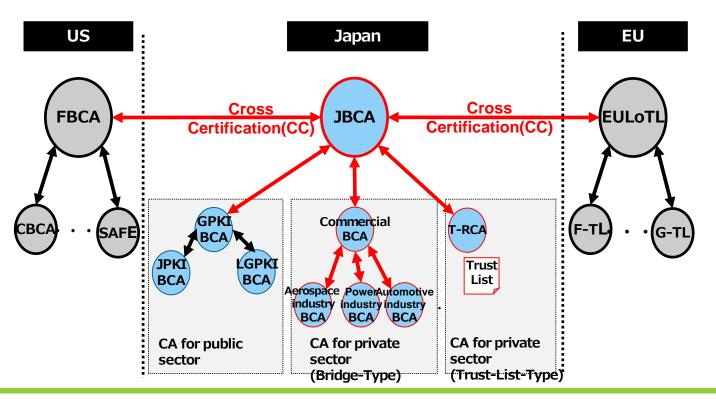
3. Remarkable Topics

3. Remarkable Topics

- (2) Attempt towards International Mutual Recognition
 - A technical Working Group for International Mutual Recognition(IMRT-WG) was formed by Keio University.
 - ****The WG consists of experts from EU, US and Japan, and also from CA/Browser Forum.**
 - **X** At the Government level, the candidates are the following agencies:
 - EU: EU Commission DG Connect
 - · US: GSA
 - Japan: Government CIO/NISC/MIC/METI

Supplement to IMRT-WG activities

[Concept of trust services by International Mutual Recognition]



Thank you

About Global Sign

GlobalSign is the leading provider of trusted identity and security solutions enabling businesses, large enterprises, cloud service providers and IoT innovators around the world to secure online communications, manage millions of verified digital identities and automate authentication and encryption. Its high-scale Public Key Infrastructure (PKI) and identity solutions support the billions of services, devices, people and things comprising the Internet of Everything (IoE).

