

Internet Trust Symposium

Towards the Realization of the Internet Trust

July 4, 2017

JIPDEC

Toru Yamauchi, Managing Director



Self-Introduction

Toru Yamauchi

JIPDEC

Managing Director/Director of the Internet Trust
Center

【Background】

■ Engaged in planning of and preparation for the IT strategy, and the standards and conformance policies at the IT Office of the Cabinet Secretariat and the Ministry of Economy, Trade and Industry. Served as a Chief Researcher of JPCERT Coordination Center.

Assumed the current positions after engaging in these positions.

■ Also serve as a part-time lecturer at Waseda University to teach the “IT and Society in Singapore/Asia” course.

Outline of JIPDEC

■Name JIPDEC

【Corporate Number 1 0104 0500 9403】

■Address Roppongi First Building, 9-9 Roppongi 1-chome, Minato-ku Tokyo, 106-0032 Japan

■Establishment December 20, 1967

50th Anniversary



Main Business of JIPDEC

- Operation of PrivacyMark System
- Accreditation of certification bodies in the Information Management System Conformity Assessment Scheme (ISMS, etc.)
- Investigation of the specified certification business based on the e-Signature Act. (to check conformity of private CAs to the implementing rules and guidelines of the e-Signature Act, etc.)
- Research studies on the utilization of digital information



■ Realization of the Internet Trust

Internet Trust Center

■ Mission/Purpose

To improve the trustworthiness of information on the Internet by proving the existence and the attribute information of individuals, information, things, etc.

■ Primary Business



(1) Ensuring Trust on the Internet

- Promotion of JCAN Certificate in electronic contract services, etc.

- Promotion of “Spam-Free Mark” as countermeasures on spoofed e-Mail

- Development of the framework of Trusted Service registration

サイバー法人台帳

ROBINS

(2) Development of Information (such as that held by legal persons) Utilization

- Collaboration with Labor Management Assessment Information

- Collaboration with METI Corporate Information Database, etc.

Internet Trust Study Group

Chairman	Satoru Tezuka	Specially appointed professor, Graduate school of Media and Governnance, Keio University,
Vice-Chairmann	Ayako Komatsu	Professor, Department of Information Security, Faculty of Information Systems, University of Nagasaki
Committee member	Atsushi Inaba	Business Producer, GMO GlobalSign K.K.
Committee member	Taiji Kimura	Japan Network Information Center
Committee member	Koichi Shibata	General Manager, Seiko Solutions Inc.
Deputy Committee member	Katsuji Nakajima	Manager, Seiko Solutions Inc.
Committee member	Akira Murakami	JPCERT Coordination Center (Council of Anti-Phishing Japan Secretariat)
Committee member	Koichi Yokoyama	CEO, The Intelligent Willpower co., Ltd.
Expert	Natsuhiko Sakimura	Senior Researcher, Nomura Research Institute, Ltd.
Expert	Hisafumu Mitsushio	Executive Advisor for Chief Information Officert, Ministry of Economy, Trade and Industry
Visiting Researcher	Michihiro Kimura	Japan Image and Information Management Association
Visiting Researcher	Soshi Hamaguchi	Cosmos Corporation
Visiting Researcher	Tatsuya Hayashi	Lepidum Co. Ltd.
Visiting Researcher	Naoto Miyachi	LangEdge, Inc.
Secretariat	Internet Trust Center, JIPDEC	

International Trends of Electronic Documents



Cloud Signature Consortium

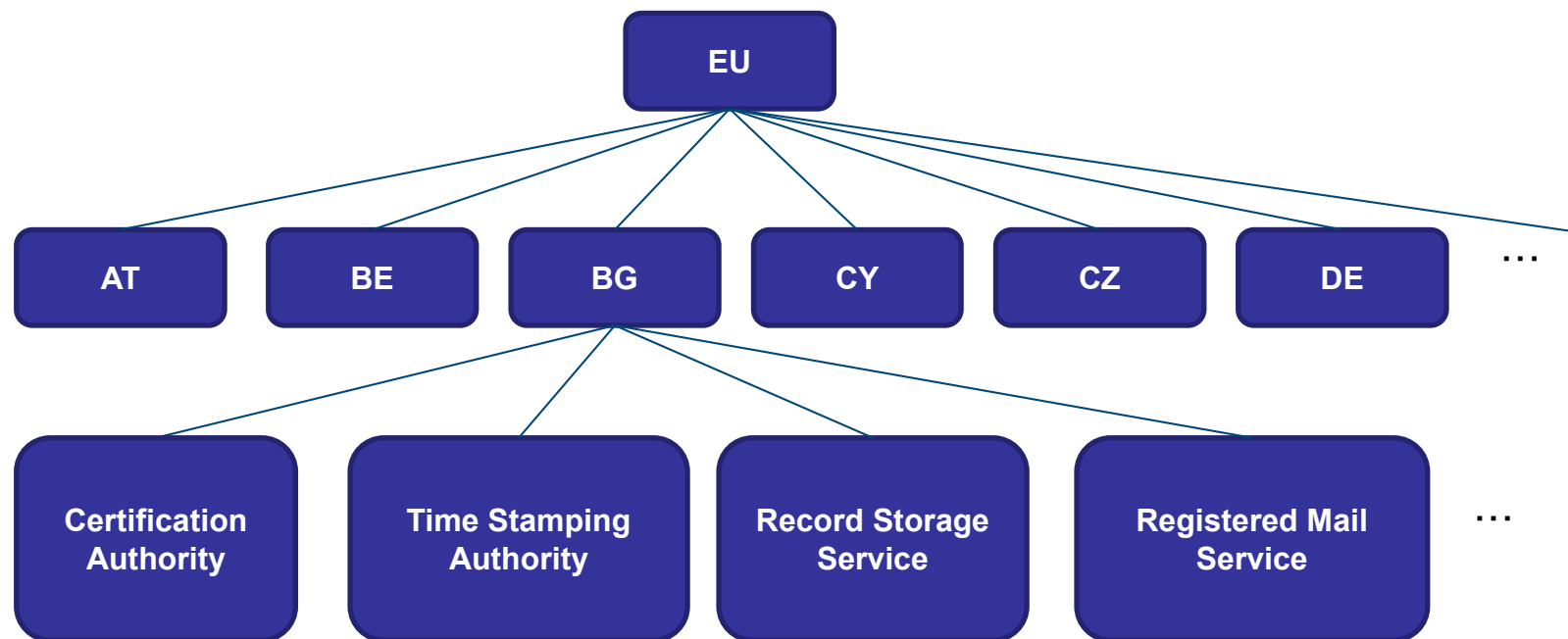
Members: Cloud Electronic Signature Providers, Trust Service Providers, Academic Organizations, Standardization Organizations and Security related Organizations in EU ➔ to promote the eIDAS compliant Electronic Signatures

xDTM Standard Association

The members are mainly industrial or academic entities in the USA
 Members: Microsoft, Purdue University, FedEx, Intel, NAR, DocuSign, Dow Jones and NBCUniversal, etc.

Outline of the eIDAS regulation in Europe

Creation of a List of Trust Services by each EU member state



The following information is described in PDF and XML format on the Trust List

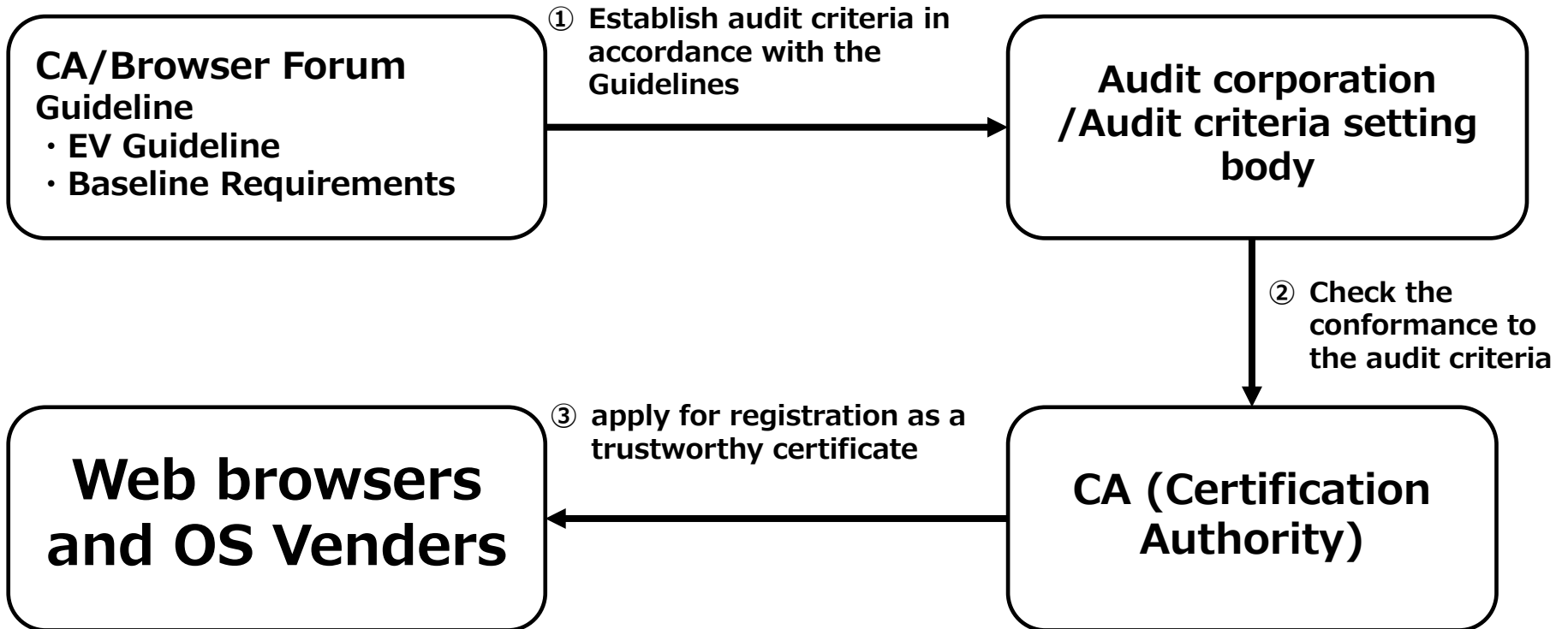
- Rules for Trust Service
- Service Providers providing services in accordance with the rules
- Trust Services provided by the providers and their status

eIDAS : Electronic identification and trust services

Efforts of Web browsers and OS Vendors

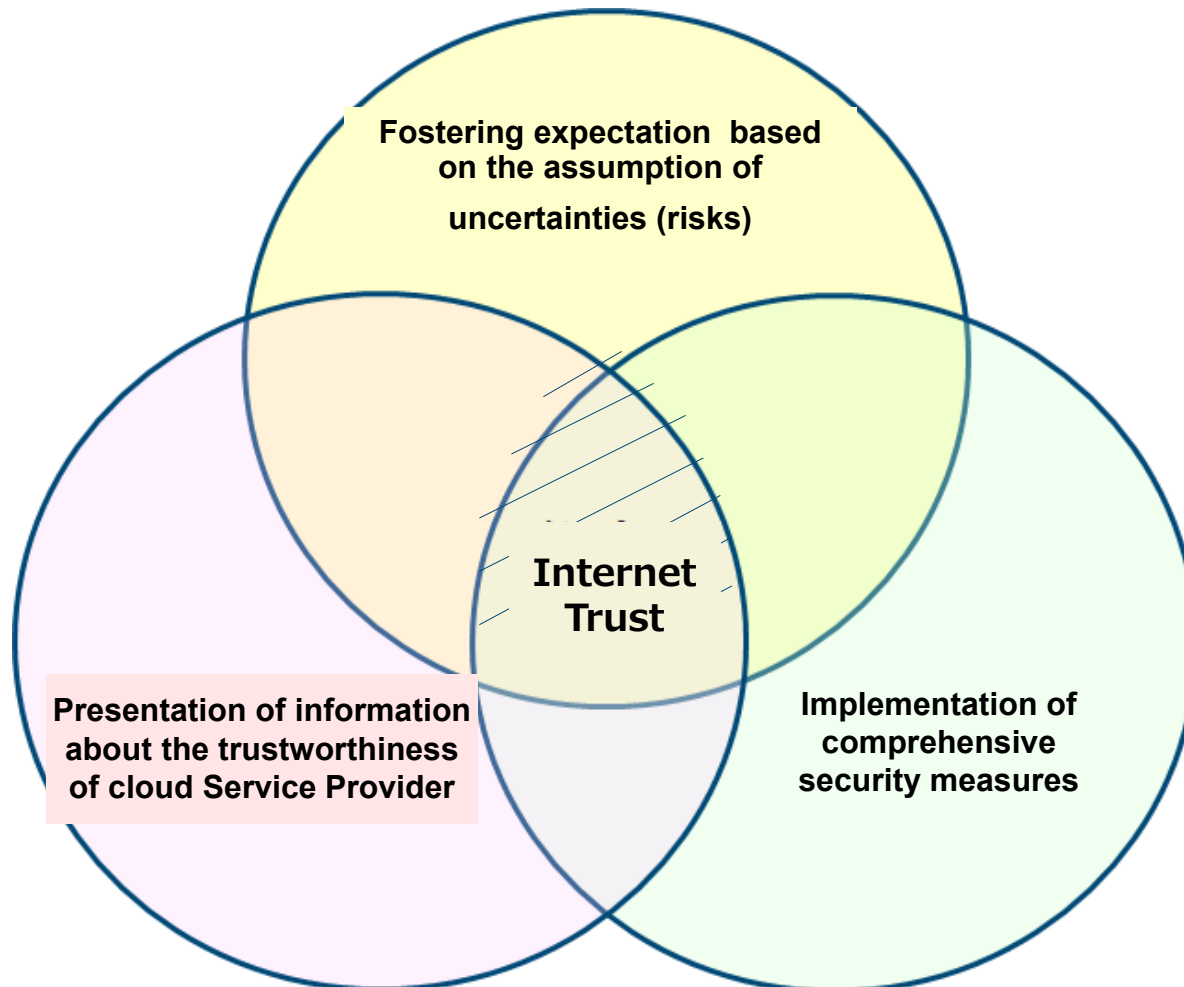
To ensure trust of Certification Authority based on CA Browser Forum

How to make a certificate trustworthy on Web browser and OS, etc.



Concept of Internet Trust

Define “Internet Trust” as a keyword to ensure the trustworthiness of the Internet society

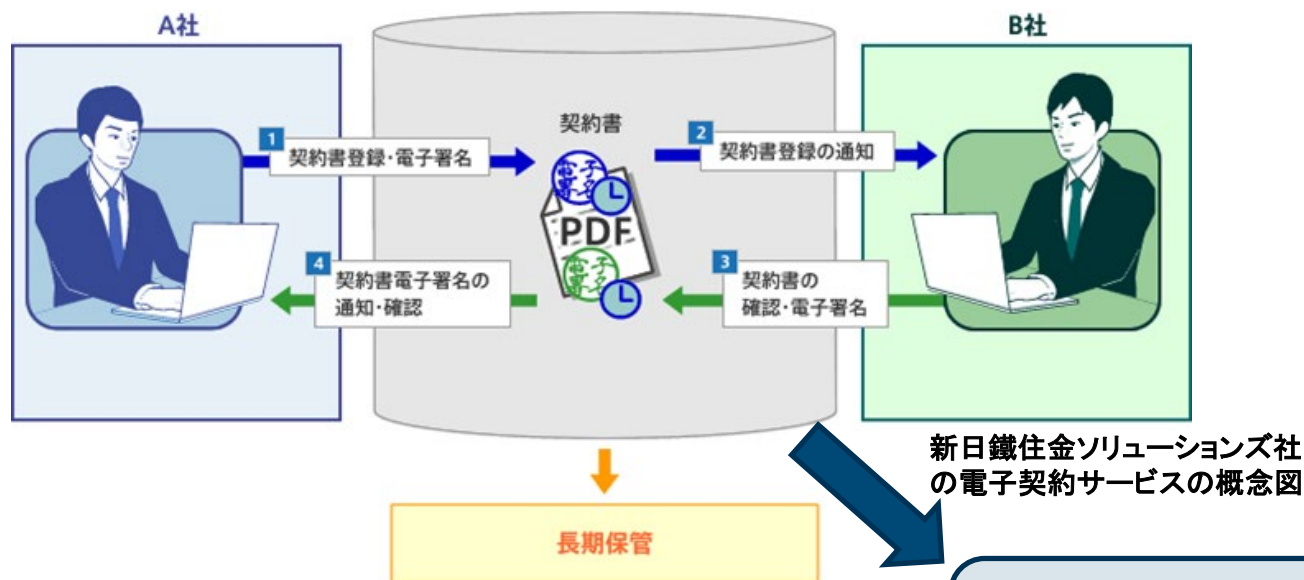


Rapid Spreading of e-Contract Services

e-Contract Service by cloud expands not only to business to business contracts but also to personal contracts.

■ Electronic business transactions

- ✓ Logistics and retail Industry (Basic Sales Transaction Agreement, sales agreement, franchise agreement, etc.)
- ✓ Construction Industry (Construction contract, etc.) and so on...



■ Expansion to personal contracts

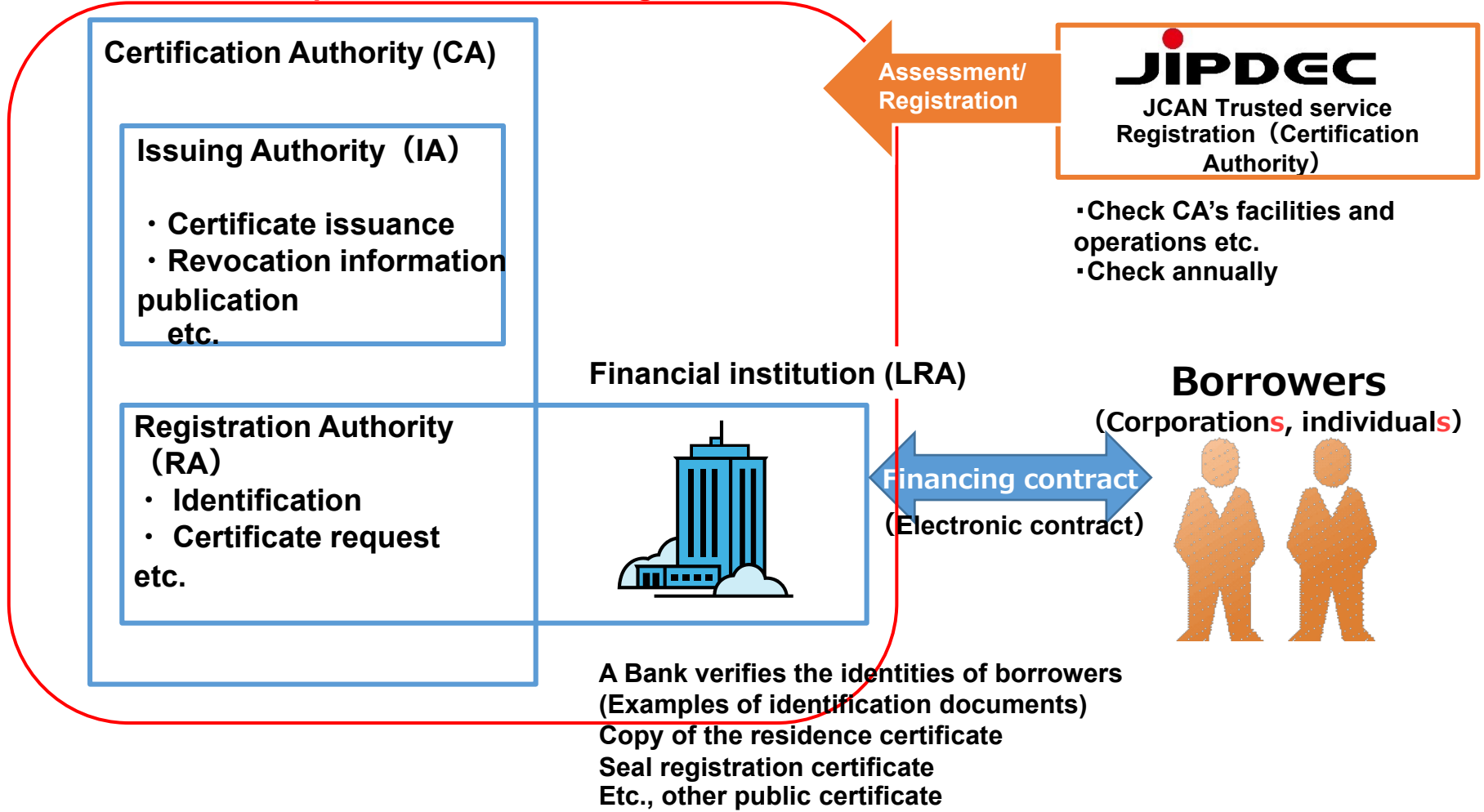
- ✓ Finance Industry (Housing Loan)
- ✓ Real Estate Industry (Leasing Contract)
- ✓ Cram schools, music classes, publications, etc. (Contracts with sole proprietors)

**Utilization of
JCAN
Certificates**

e-Contracting Service of Financial Institution

(image)

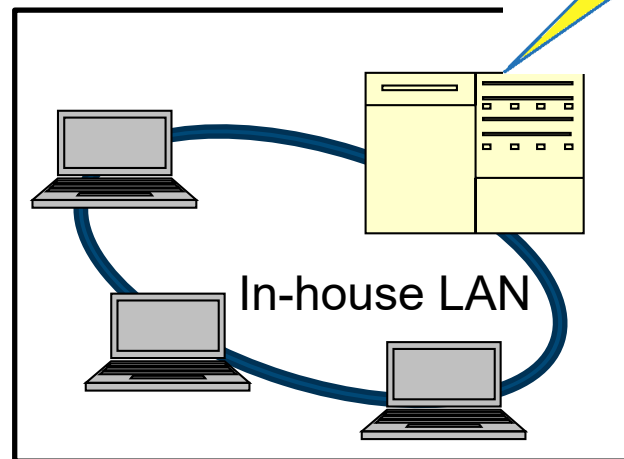
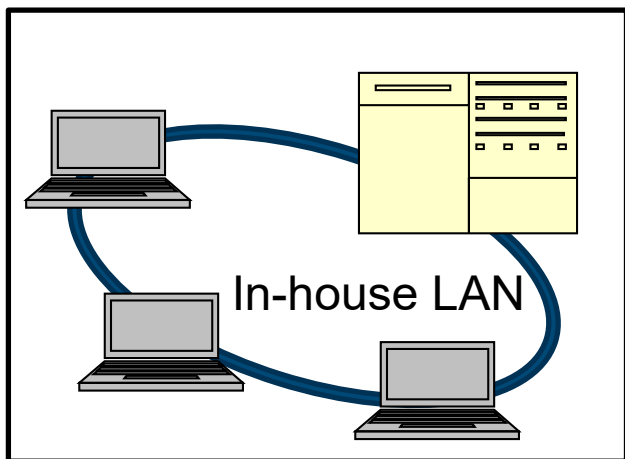
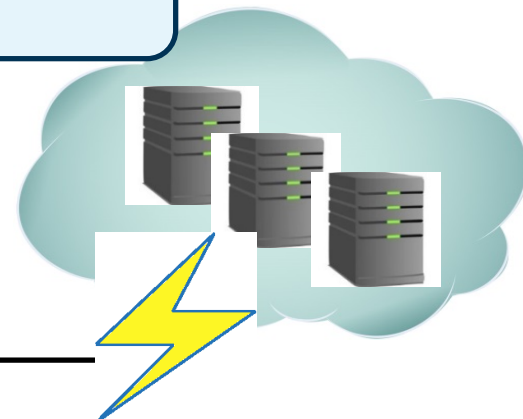
Scope of Assessment / Registration



Security of Cloud services

Information Security Management System (ISMS) for cloud services

➔ ISMS cloud security certification (ISO/IEC 27001 and ISO/IEC 27017)



Security measures are all on their own.

➔ ISMS certification

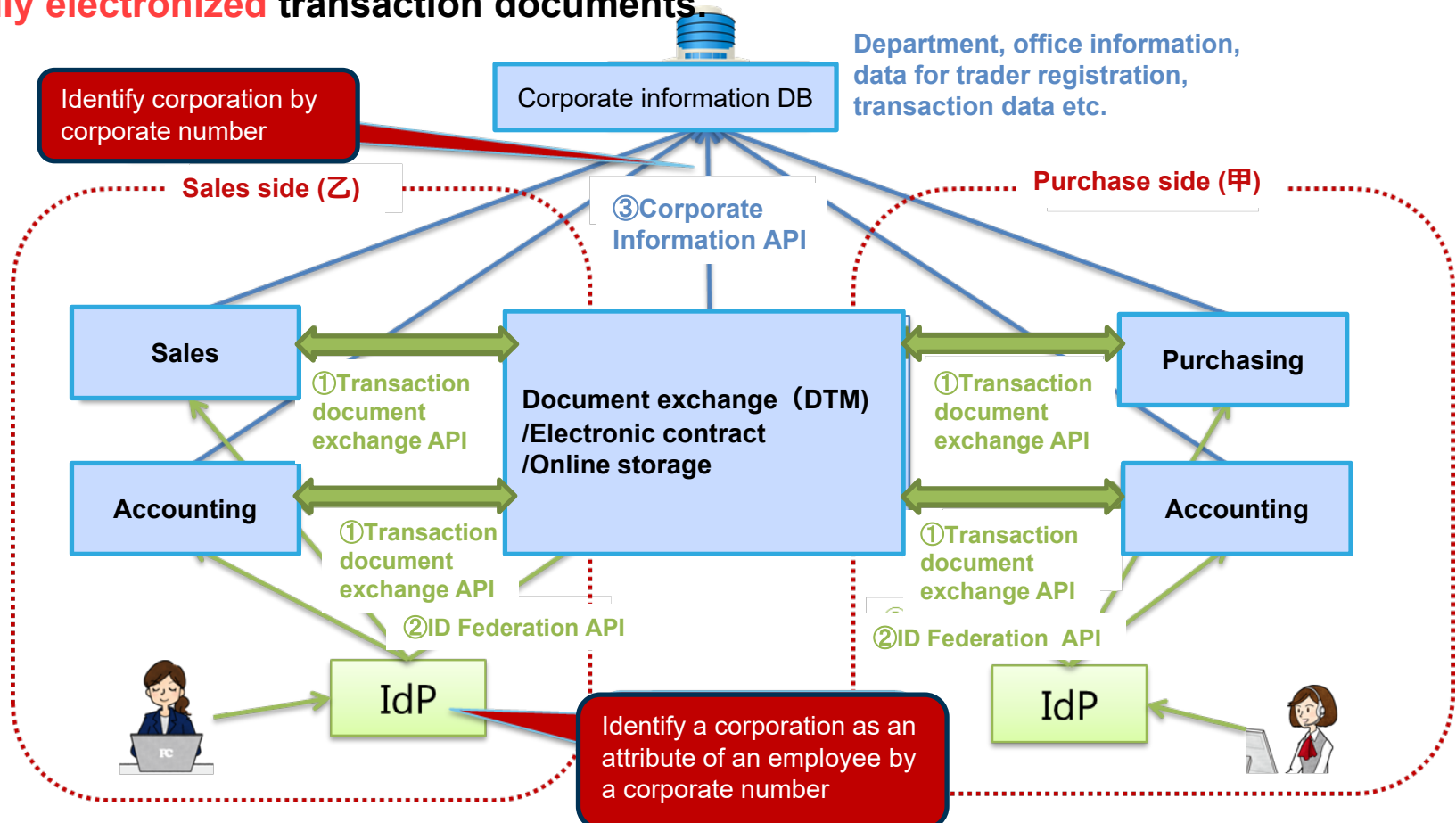
A large part of security measures depend on the cloud services.

➔ ISMS cloud security certification

Fully electronic Transaction Documents

TTX (Trusted Transaction eXchange) Consortium

Electronic contract service vendors and **vendors** of mission-critical systems for such as sales, accounting, salary, and purchasing work together to realize the **fully electronic** transaction documents.



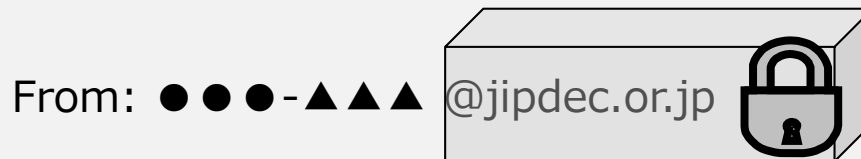
Countermeasures on Spoofed e-mail (Sending Side)

Outline of the countermeasures on spoofed e-mail on sender side

1. Use of Sender Domain Authentication

DKIM (**D**omain**K**ey**I**dentified **M**ail)

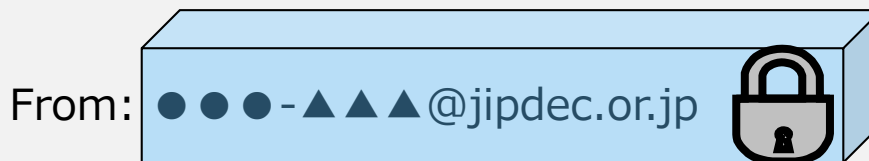
Display “Spam Free Mark” to prove that the sender of the email is genuine.



2. Use of S/MIME

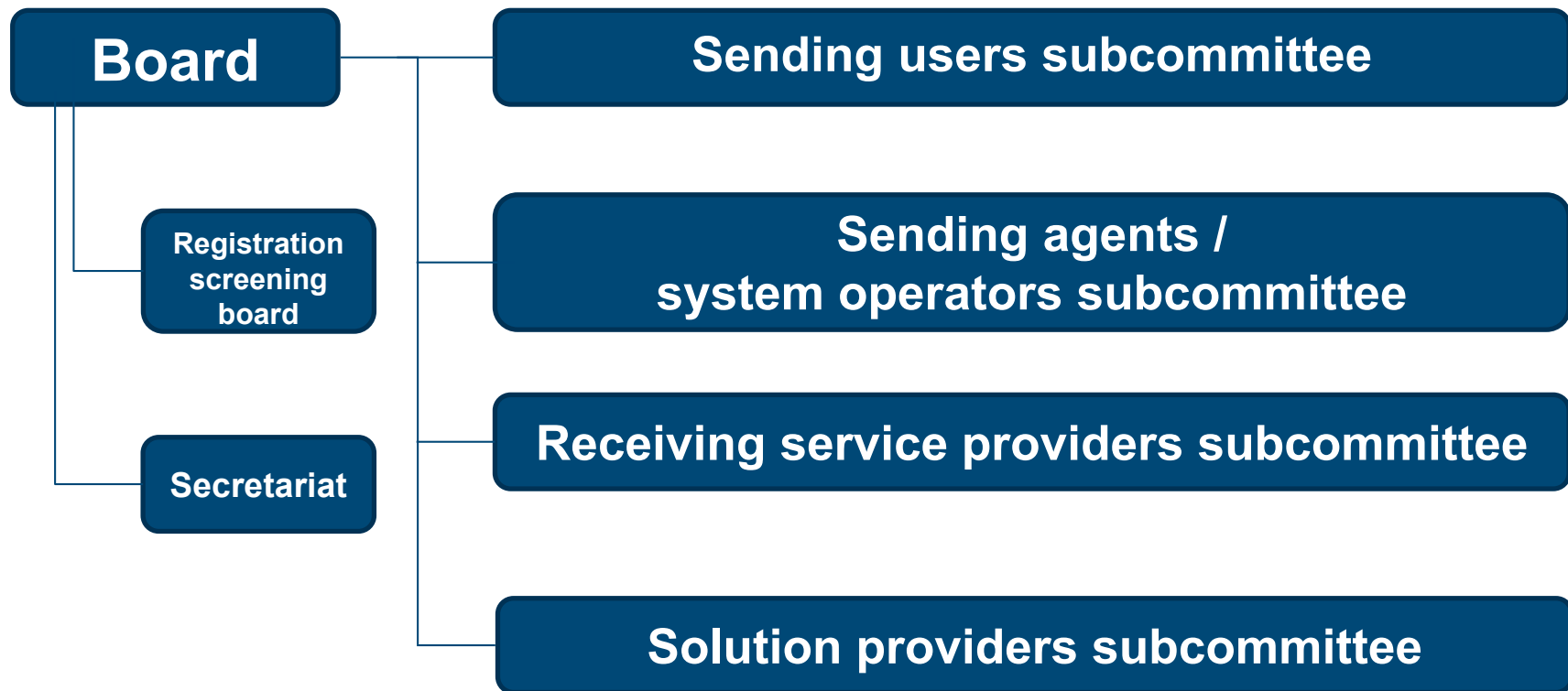
S/MIME (**S**ecure / **M**ultipurpose **I**nternet **M**ail **E**xtensions)

Use the electronic certificate to prove that the sender of the mail is genuine.



“Spam-Free Mark” Promotion Forum

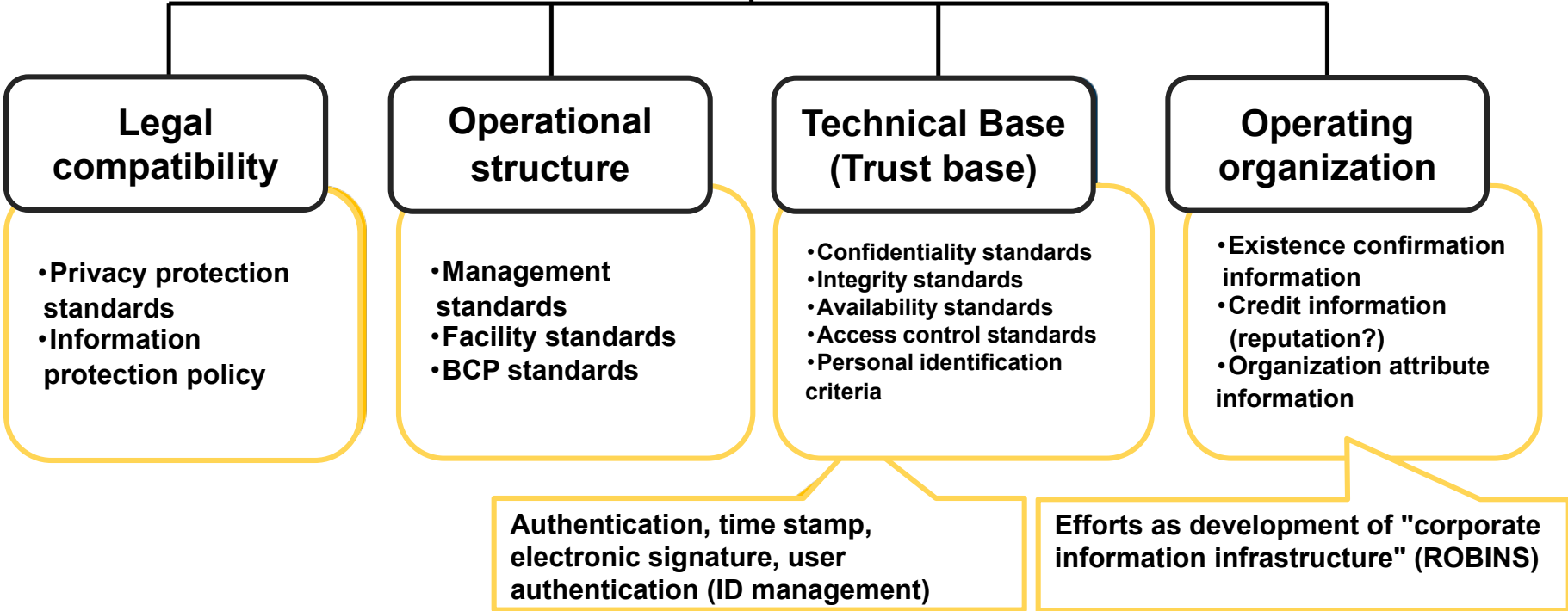
Promote the countermeasures on spoofed e-mail centered on “Spam Free mark” by combining stakeholders’ expertise and knowledge on e-mail.
 (established on January 2017, with 24 companies / associations)



Criteria for Trusted Services (image)

Evaluation of trusted services

Trusted Services Criteria



JCAN Trusted Service Registration

The reliability of the services using the JCAN certificate, etc. are examined, and they are registered and made public by ROBINS – the Cyber Business Registry.

JCAN trusted service registration (Certification Authority)
Approval / registration of certification authority issuing electronic certificates necessary for electronic signatures of electronic contract services such as those of financial institutions



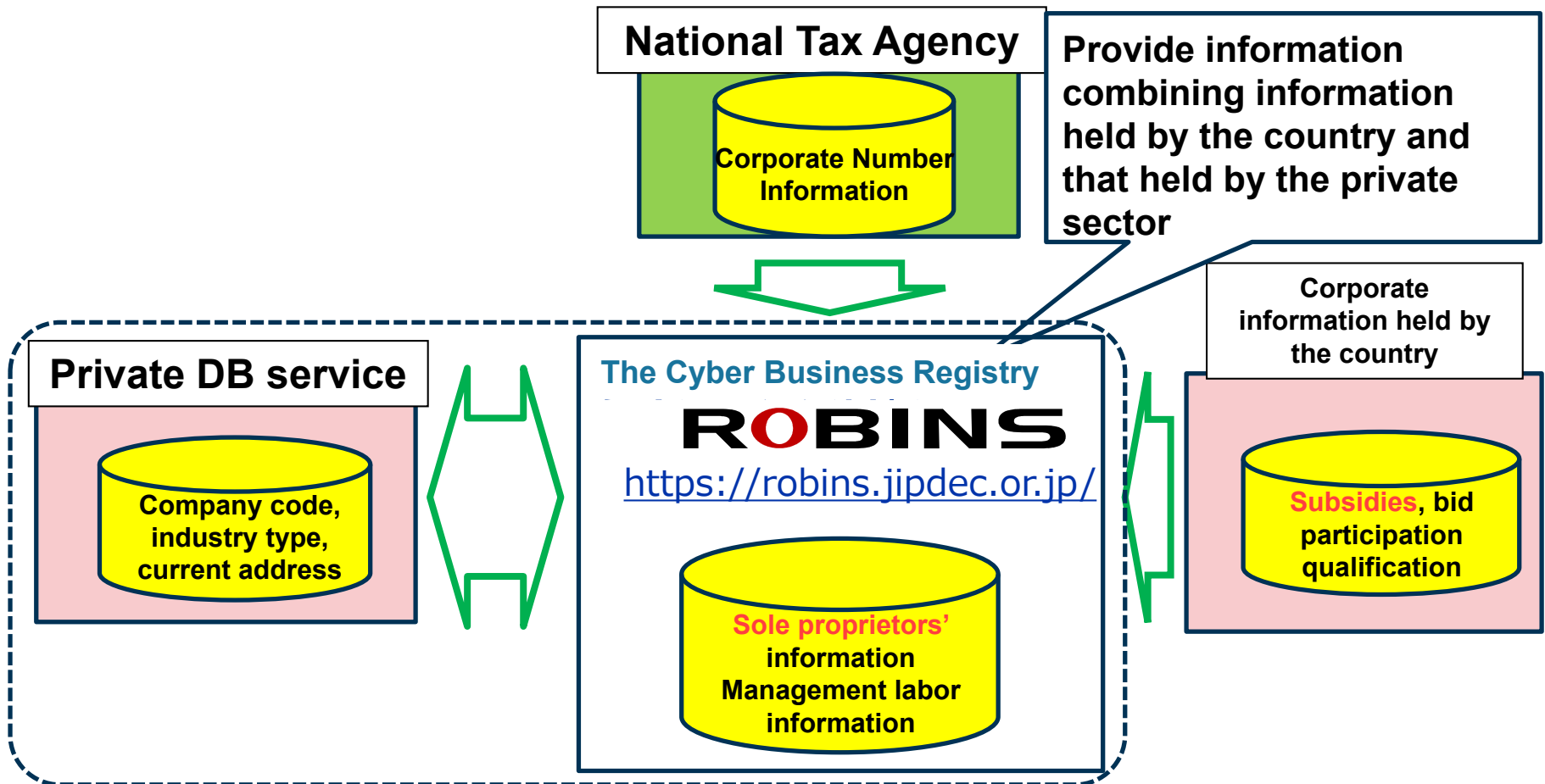
JCAN trusted service registration (Electronic contract)
Examine and register electronic contract services themselves such as those of financial institutions
(See the acquisition of ISMS cloud security certifications etc.)



JCAN trusted service registration (xxxxx)
Examination, registration of a variety of cloud services

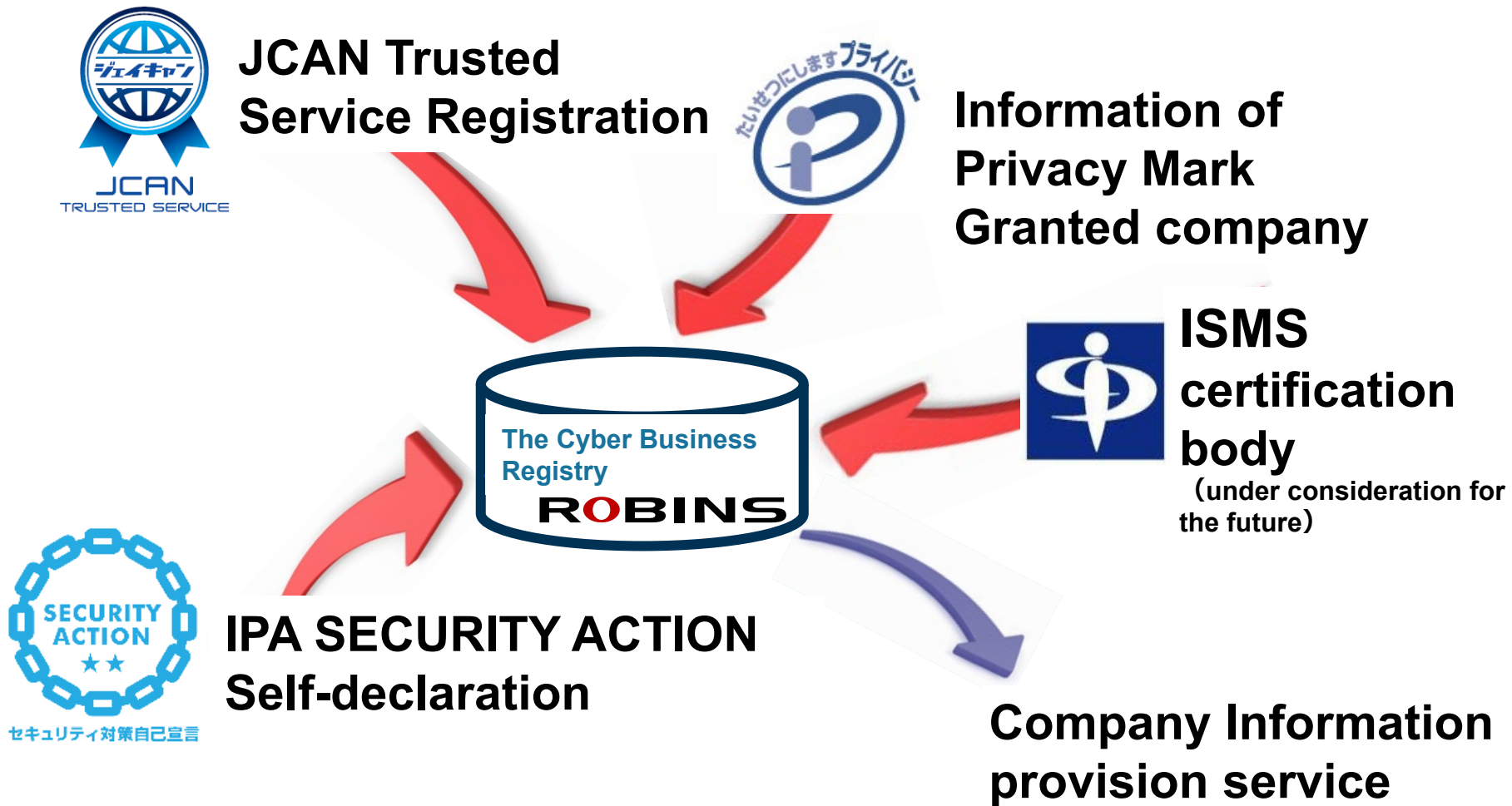
ROBINS - The Cyber Business Registry

A private corporate portal which allows the reliable information of small and medium-sized enterprises to be easily obtained via the Internet

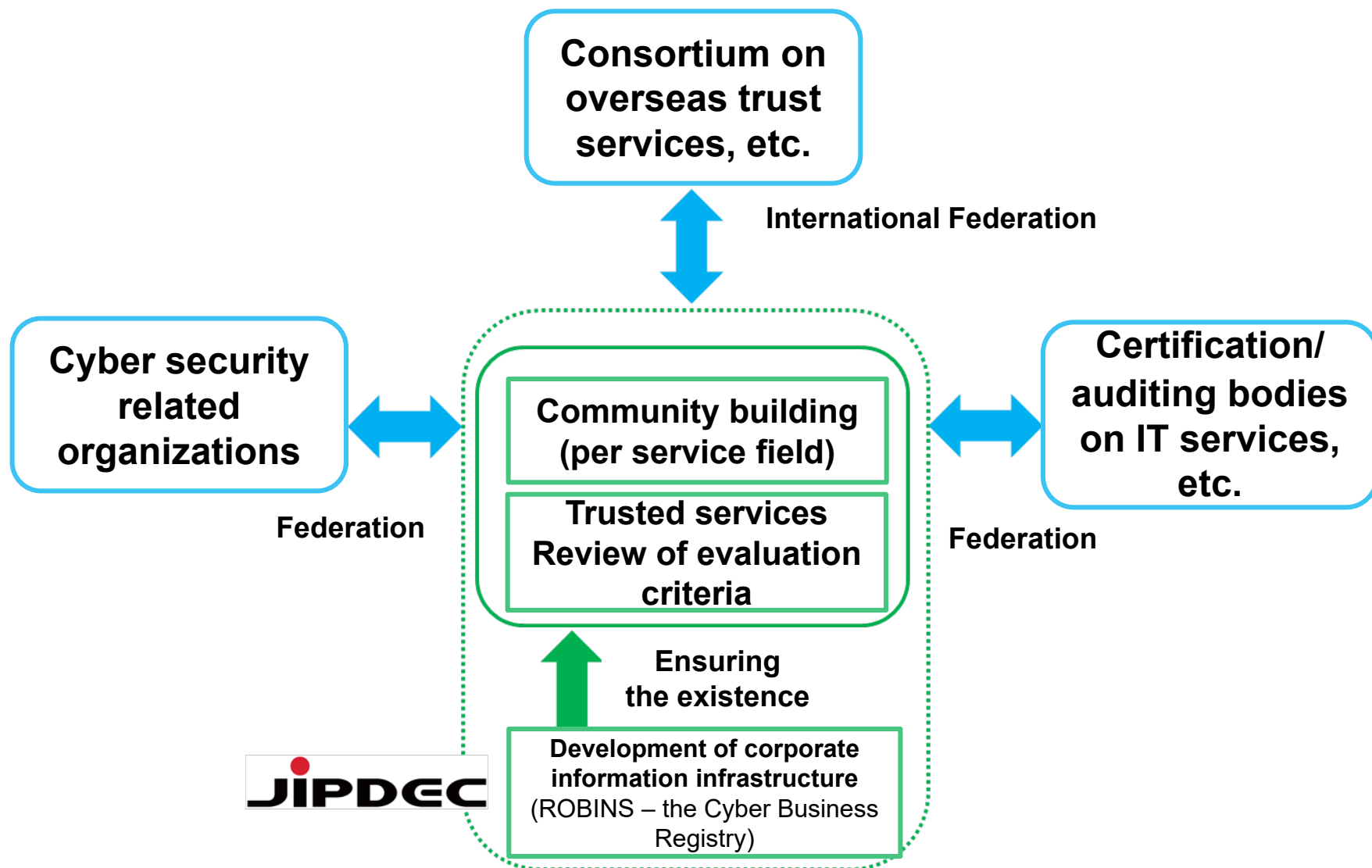


※ROBINS: Reference Of Business Identity for Networked Society

Trustworthy ROBINS Corporate Registration (image)



Establishment of a Collaborative System with Related Organizations



Future activities

- **Dissemination and enlightenment of the Internet Trust**
- **Fully electronic transaction documents**
 - ✓ Expansion of the electronic contract service market
 - ✓ Cooperation of service vendors and others (TTX Consortium)
- **Construction of the framework of the trusted service registration**
 - ✓ Creation of evaluation criteria for electronic contract service, etc. (Collaboration with international standardization activities)
 - ✓ Collaboration with cloud services evaluation (ISMS cloud security certification)
 - ✓ Staff training for the trusted service registration

