Japan-Europe Internet Trust Symposium 2019

JCAN Trusted Service Registration

May 23rd, 2019

JIPDEC

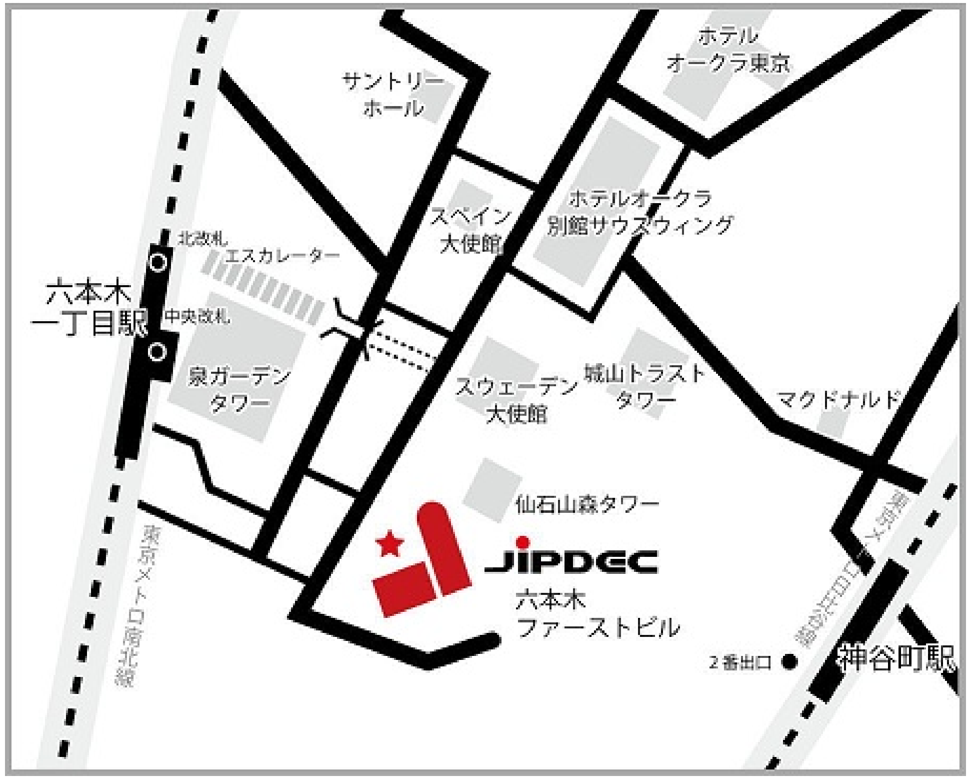
Internet Trust Center

Overview

1. Organization Outline of JIPDEC
2. Trends of Business Process and Demands of Digitalization
3. Internet Trust and its Assessment
4. Outline of JCAN Trusted Service Registration
5. Towards the Realization of Trust

1． Organization Outline of JIPDEC

- **Name**　JIPDEC 【Corporate Number 1010 4050 09403】
- **Establishment** December 20th, 1967
- **Capital**　3,999 million yen
- **Budget**　2,424.5 million yen（FY2019）
- **Number of Employees**　93
(as of April 2019)


ホテル
オークラ東京
サントリー
ホール
スペイン
大使館
ホテルオークラ
別館サウスウィング
北改札
エスカレーター
六本木
一丁目駅
中央改札
泉ガーデン
タワー
スウェーデン
大使館
城山トラスト
タワー
マクドナルド
仙石山森タワー
JIPDEC
六本木
ファーストビル
2番出口
神谷町駅
東京メトロ南北線
東京メトロ日比谷線

Introduction of Internet Trust Center

- **JIPDEC promotes the technique and framework to ensure the trust of the information on the Internet.**

Assessment of trustworthiness of Trust Services

Assessment of trustworthiness of Trust Services

JCAN Trusted Service Registration

Electronic Certificate of Corporate Individual

JCAN Certificate

Trustworthy Company Data

Cyber Business Register

ROBINS

"Spam-Free Mark" framework using S/MIME and DKIM

Prevent e-mail spoofing

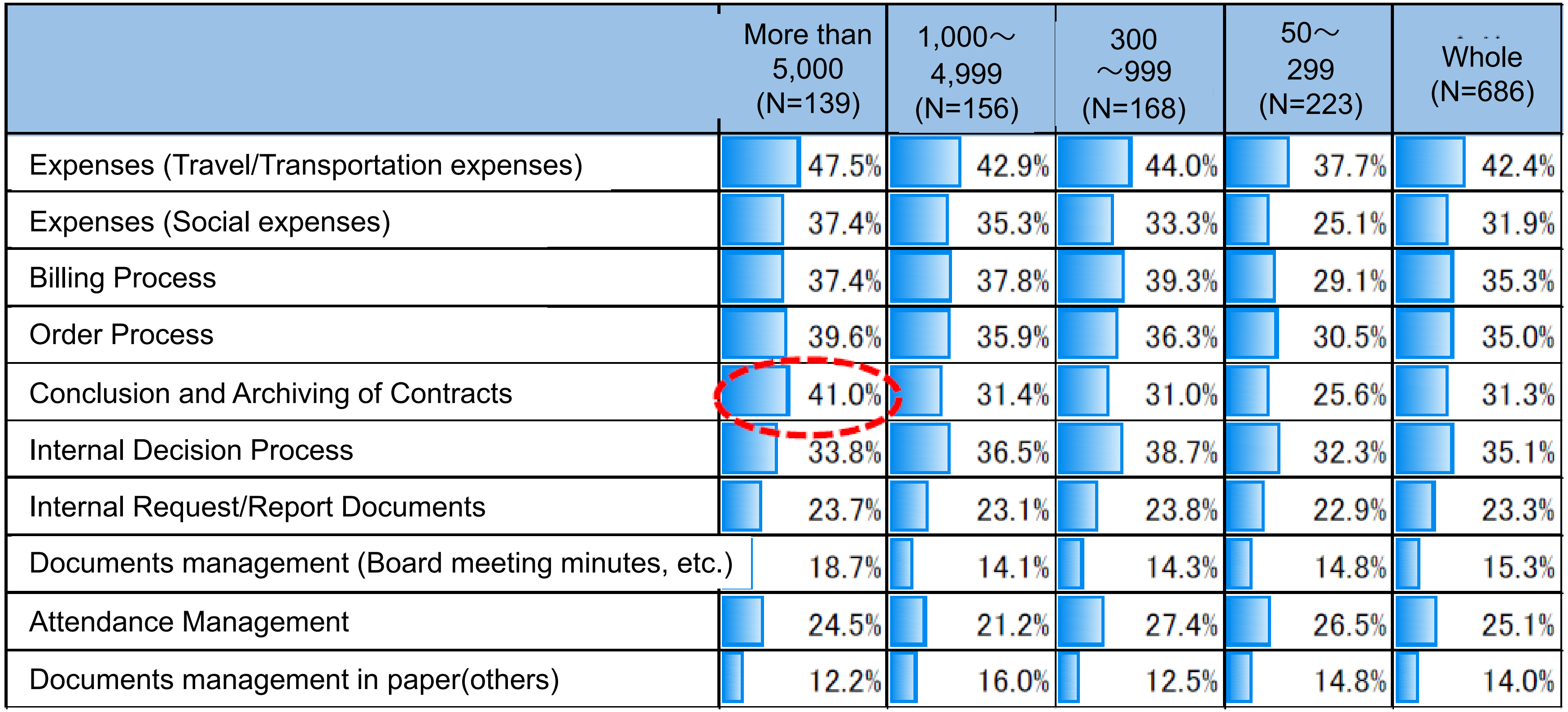
S/MIME
DKIM
エスまいむ
ディーきいむ

Research to ensure the trustworthiness of Internet

Research Report for Internet Trust

2．Changes in Companies’ work flow and Demands of Digitalization

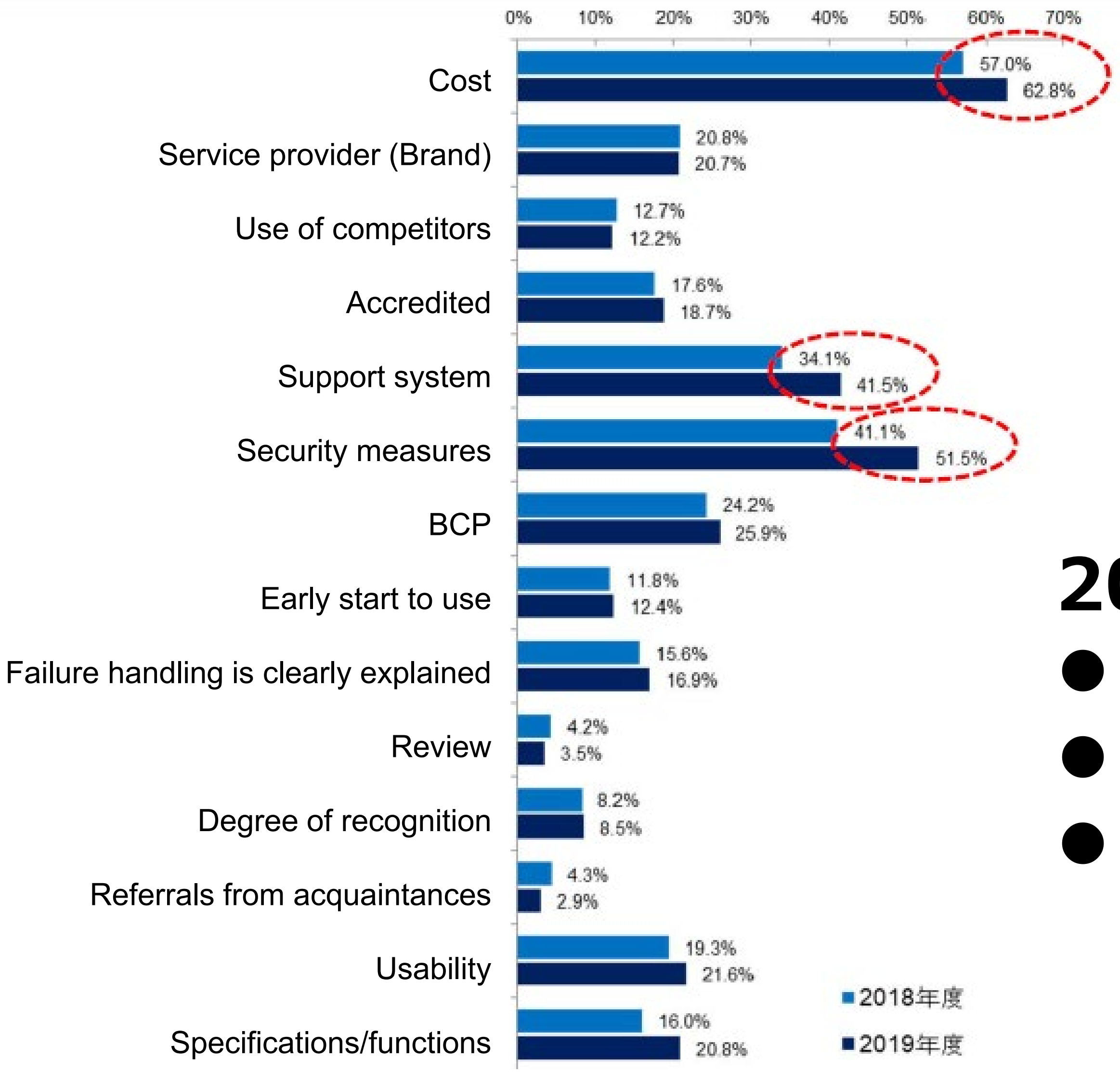
- **Demands to conclude and archive contracts are high in large companies with more than 5,000 employees.**



	More than 5,000 (N=139)	1,000～4,999 (N=156)	300～999 (N=168)	50～299 (N=223)	Whole (N=686)
Expenses (Travel/Transportation expenses)	47.5%	42.9%	44.0%	37.7%	42.4%
Expenses (Social expenses)	37.4%	35.3%	33.3%	25.1%	31.9%
Billing Process	37.4%	37.8%	39.3%	29.1%	35.3%
Order Process	39.6%	35.9%	36.3%	30.5%	35.0%
Conclusion and Archiving of Contracts	41.0%	31.4%	31.0%	25.6%	31.3%
Internal Decision Process	33.8%	36.5%	38.7%	32.3%	35.1%
Internal Request/Report Documents	23.7%	23.1%	23.8%	22.9%	23.3%
Documents management (Board meeting minutes, etc.)	18.7%	14.1%	14.3%	14.8%	15.3%
Attendance Management	24.5%	21.2%	27.4%	26.5%	25.1%
Documents management in paper(others)	12.2%	16.0%	12.5%	14.8%	14.0%

（出典：JIPDEC IT-Report ）

Deciding Factor of Cloud based Application Service



2018～2019

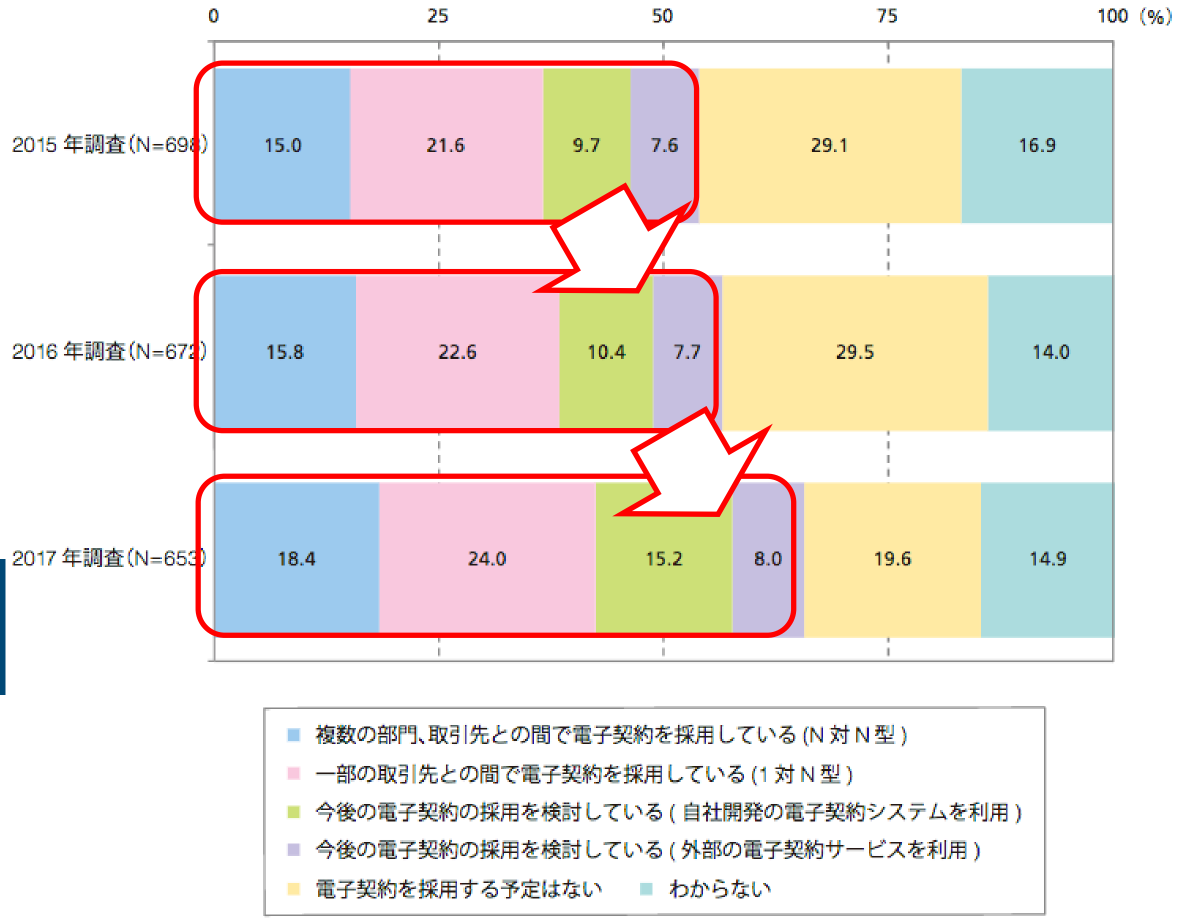
- **Cost**
- **Security measures**
- **Support system**

（Source：JIPDEC IT-Report）

Rapid Spreading of e-Contracting Services

- **More and more companies adopting/considering e-Contracting services.**

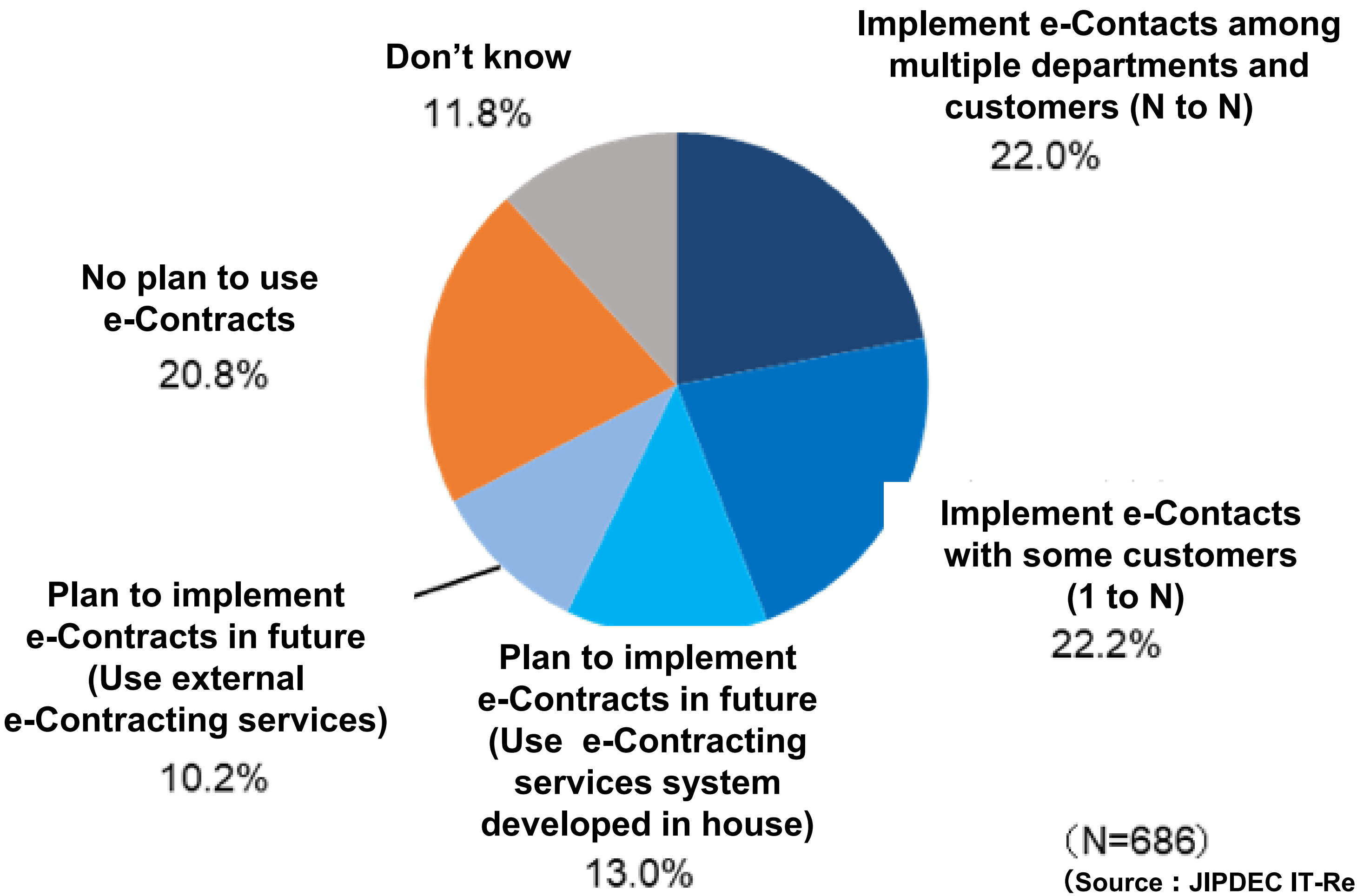
FY	Demand	Comparison with the previous year
2015	53.9%	
2016	56.5%	104.8%
2017	65.6%	116.1%



（出典：JIPDEC IT-Report ）

Use of e-Contracting Services

- **More than 40% companies are using e-Contracts, and about 70% of companies are using/considering it.**



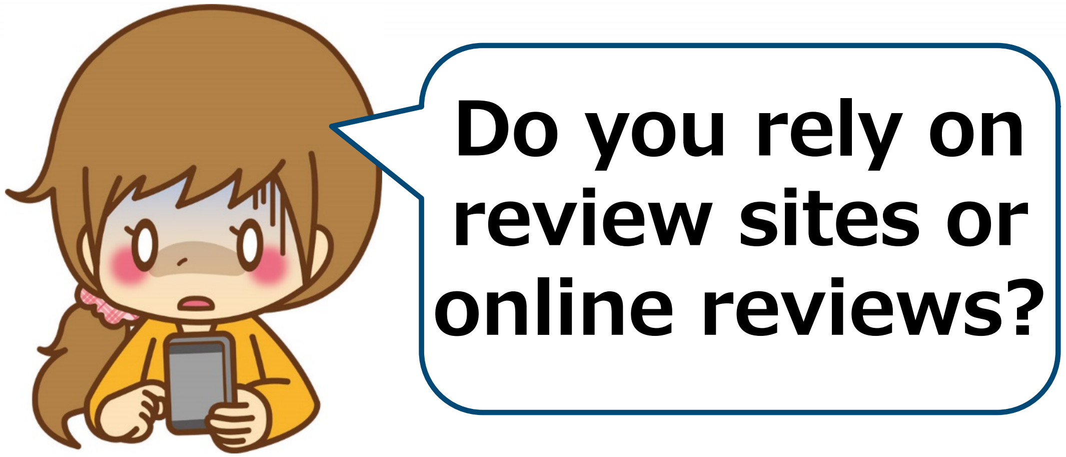
（N=686）

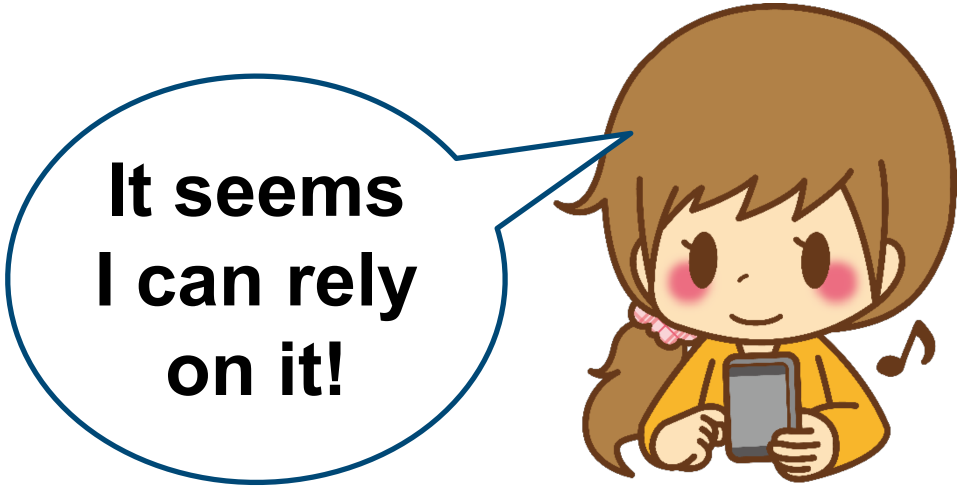
（Source：JIPDEC IT-Report ）

3． Internet Trust and its Assessment

- Traditional method to ensure the trustworthiness such as F2F verification does not work for application services on the Internet.

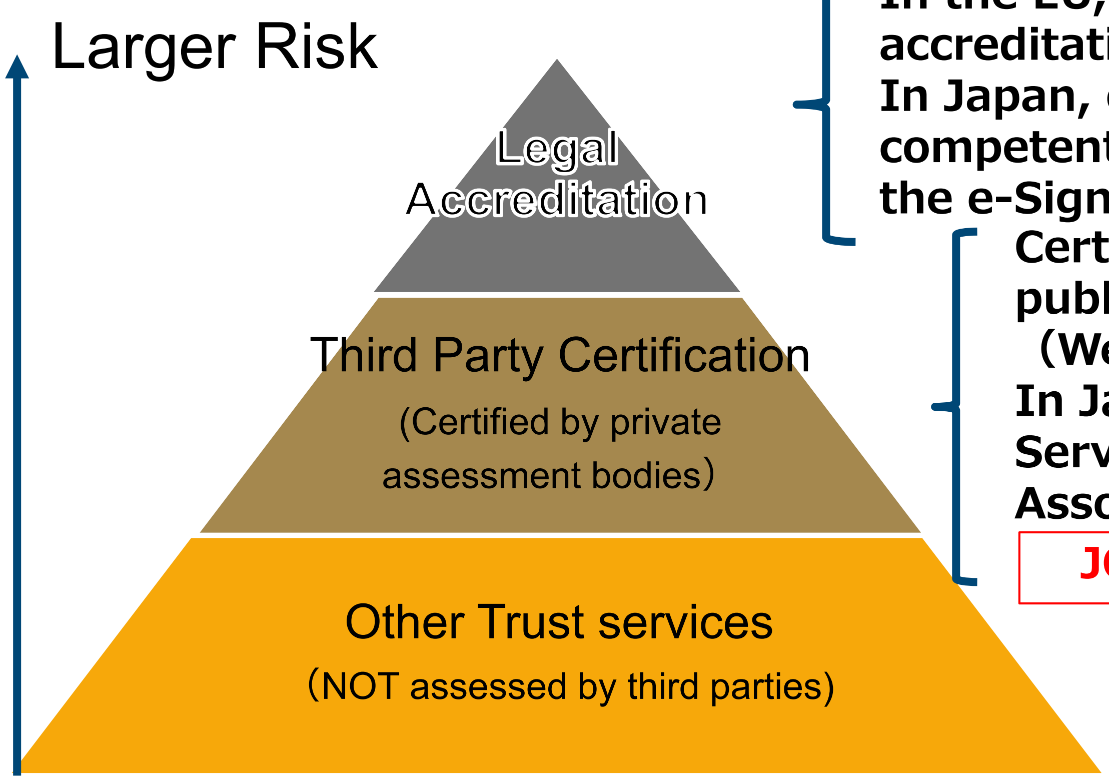
- To solve this problem, the services need to be assessed neutrally by a third party.


Do you rely on review sites or online reviews?


It seems I can rely on it!

Trustworthiness Assessment for Certification Authorities and e-Contracting Services, etc.

- **The trustworthiness assessment framework can be divided into 3 levels according to the severity of risk.**



Larger Risk

Legal Accreditation

In the EU, the member state government grant the accreditation.（Listed in the Trusted List）
In Japan, only for electronic signature, the competent authorities grant accreditation based on the e-Signature Act.

Third Party Certification

（Certified by private assessment bodies）

Certification based on the criteria of certified public accountants association, etc.（WebTrust for CA）
In Japan, accreditation for Time-Stamping Service by Japan Data Communications Association (JADAC)

JCAN Trusted Service Registration

Other Trust services

（NOT assessed by third parties）

Third party's authorization is not required.
e.g. corporate system, etc.

Source：Drawing based on the concept of eIDAS Regulation

4．Outline of JCAN Trusted Service Registration

■Target of Trust Service Assessment at present

Certification Authority

- ✓ Issuing Authority, Registration Authority
- ✓ Local Registration Authority (LRA) (Identity verification, Deliver of electronic certificate, etc.)

e-Contracting Service

- ✓ User management including identity verification
- ✓ Management of signing key
- ✓ Management of electronic contract
- ✓ Electronic signature function for remote signature

Website, e-Mail・・

- ✓ Under consideration

JCAN Trusted Service Registration (JTS Registration)

■ **Assessment Requirements for Certification Authority**

JIPDEC prepared the requirements based on ETSI TS 102 042 and WebTrust for CA.

➡ Plan to use EN 319 401 v2.2.1 and EN 319 411-1, etc. for assessment as appropriate in future.

➡ Contribute to provision of more trustworthy electronic certificate in private industry.

■ **Assessment Requirements for e-Contracting Services-Remote Signature**

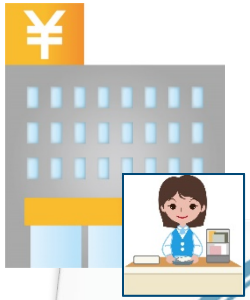
JIPDEC prepared the requirements with experts' opinions about system operations and management criteria of Certification Authorities and e-Contracting, and based on the technical requirements of ETSI TS 119 431 (Remote Signature).

➡ Contribute to provision of more trustworthy e-Contracting services in private sector.

Used Area of JTS Registration (CA and LRA)

■ Used Areas

Manufacturing Industry


Financial Industry

Construction Inspection

Housing Industry

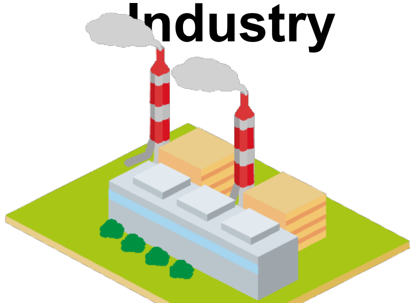
Defense Industry

Product Safety test

Environmental Inspection

Transportation Industry

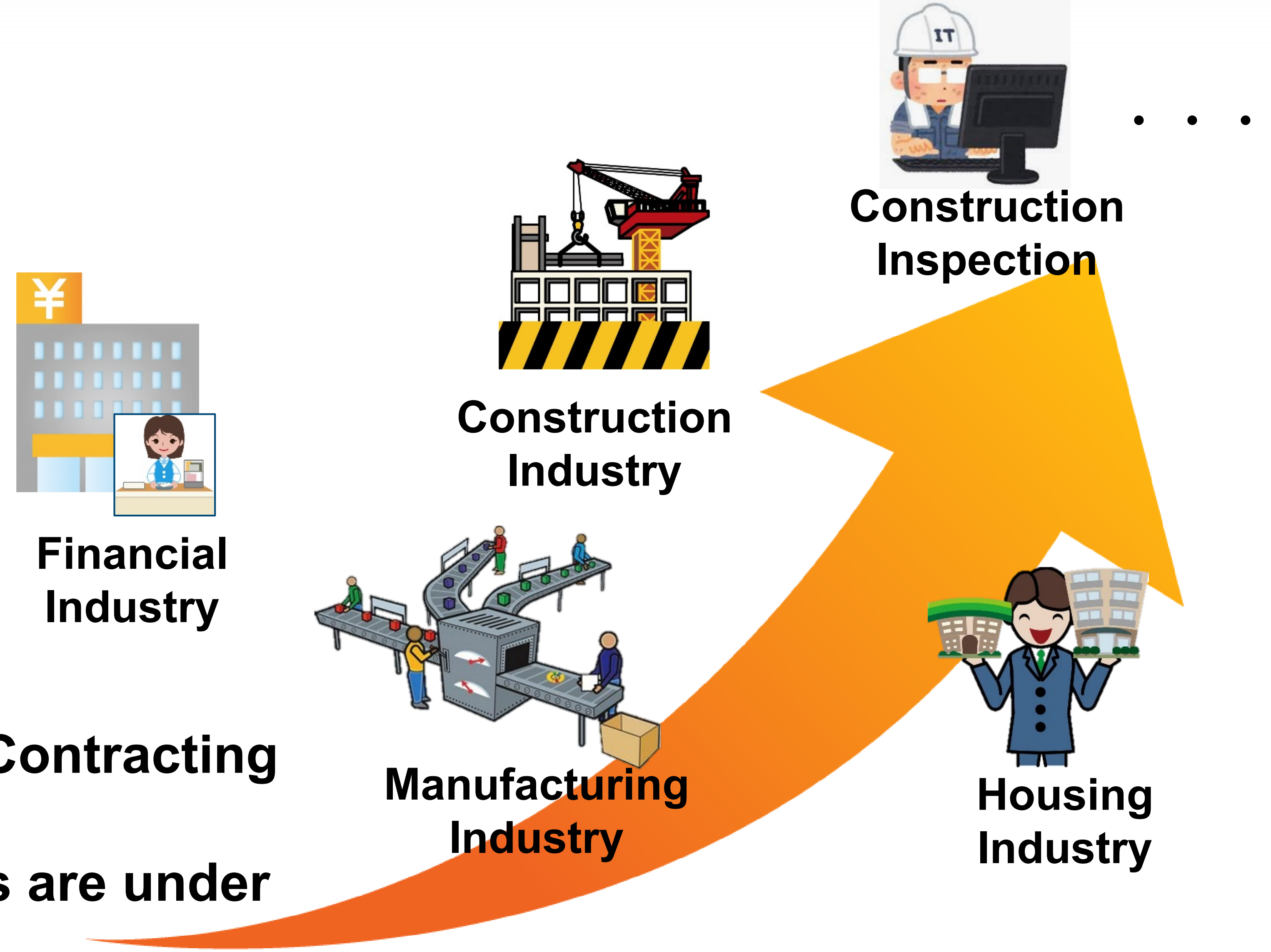
IT Software Industry


Electricity Industry

JCAN Trusted Service Registration:
JTS Registration

JTS Registration (e-Contracting)

■Used Areas



Financial Industry

Manufacturing Industry

Construction Industry

Construction Inspection

・・・

Housing Industry

High demand in e-Contracting services.
Multiple companies are under assessment now.

Registered Organizations of JTS Registration (LRA)

28 organizations are registered.

As of 2019.5.10

Will be released sequentially.

➡ https://itc.jipdec.or.jp/trustedlist.html

Registered Organizations and Service Names of JTS Registration

■JTS Registration (Certification Authority)

- **Mizuho Bank, Ltd.**

  「Mizuho Bank Certification Authority」

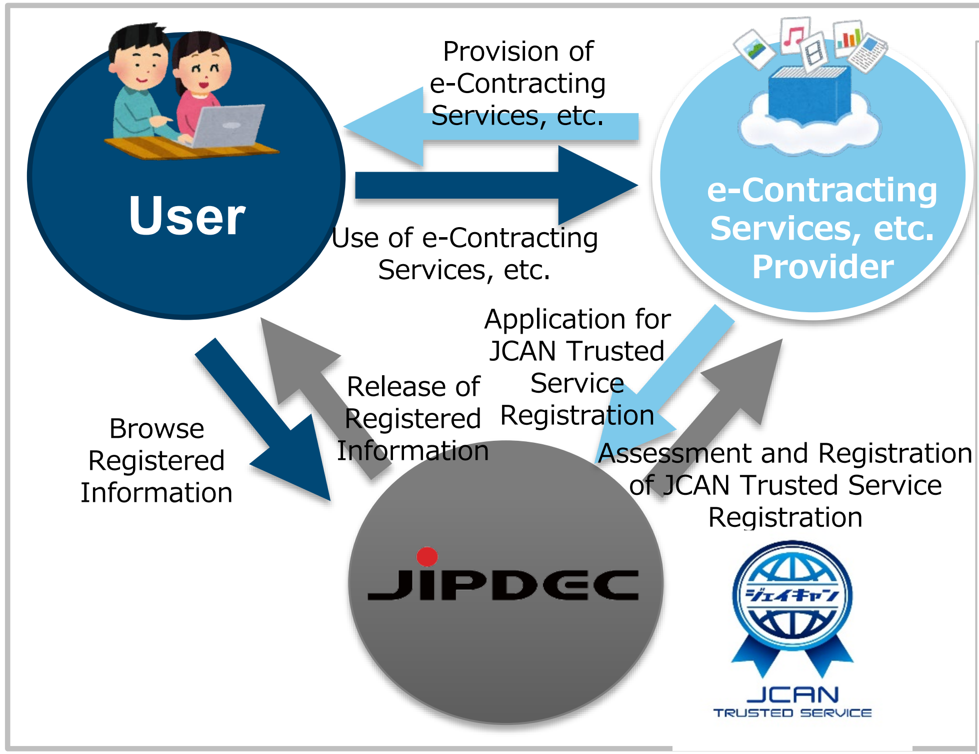
■JTS Registration (Remote Signature(e-Contract))

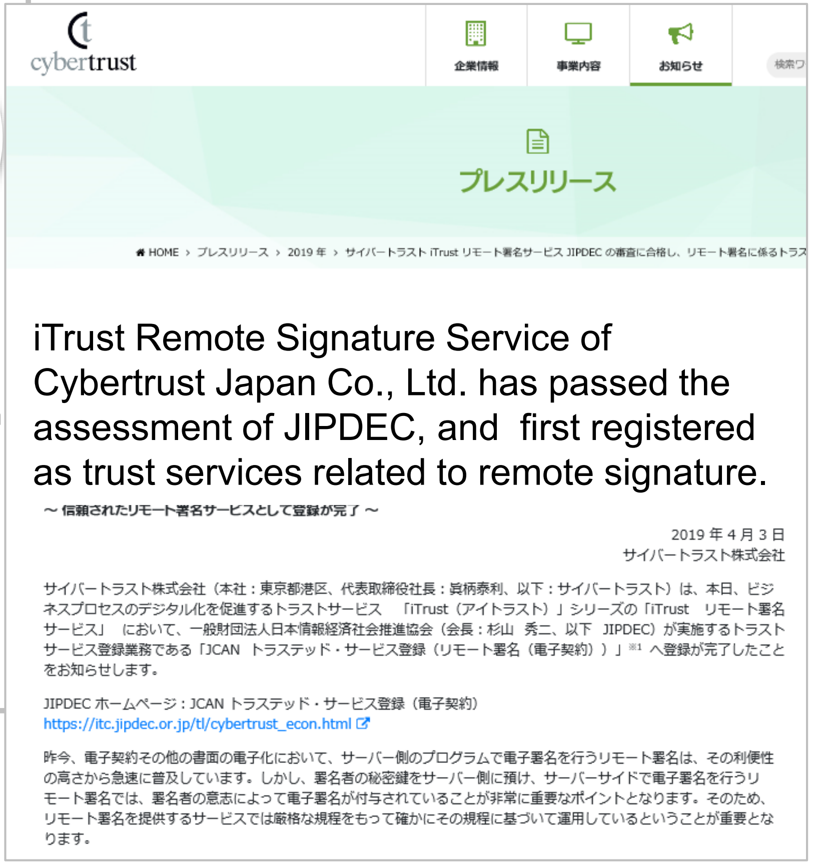
- **Cybertrust Japan Co., Ltd.**

  「iTrust Remote Signature Service」

Remote Signature（e-Contracting）

“iTrust Remote Signature Service” of Cybertrust Japan Co., Ltd. is registered on April 1st as the first JCAN Trusted Service Registration (Remote Signature (e-Contract)).


Provision of e-Contracting Services, etc.
User
Use of e-Contracting Services, etc.
e-Contracting Services, etc. Provider
Application for JCAN Trusted Service Registration
Release of Registered Information
Browse Registered Information
Assessment and Registration of JCAN Trusted Service Registration
JIPDEC
ジェイキャン
JCAN
TRUSTED SERVICE


cybertrust
企業情報
事業内容
お知らせ
検索ワ
プレスリリース
HOME › プレスリリース › 2019 年 › サイバートラスト iTrust リモート署名サービス JIPDEC の審査に合格し、リモート署名に係るトラス

iTrust Remote Signature Service of Cybertrust Japan Co., Ltd. has passed the assessment of JIPDEC, and first registered as trust services related to remote signature.

～ 信頼されたリモート署名サービスとして登録が完了 ～

2019 年 4 月 3 日
サイバートラスト株式会社

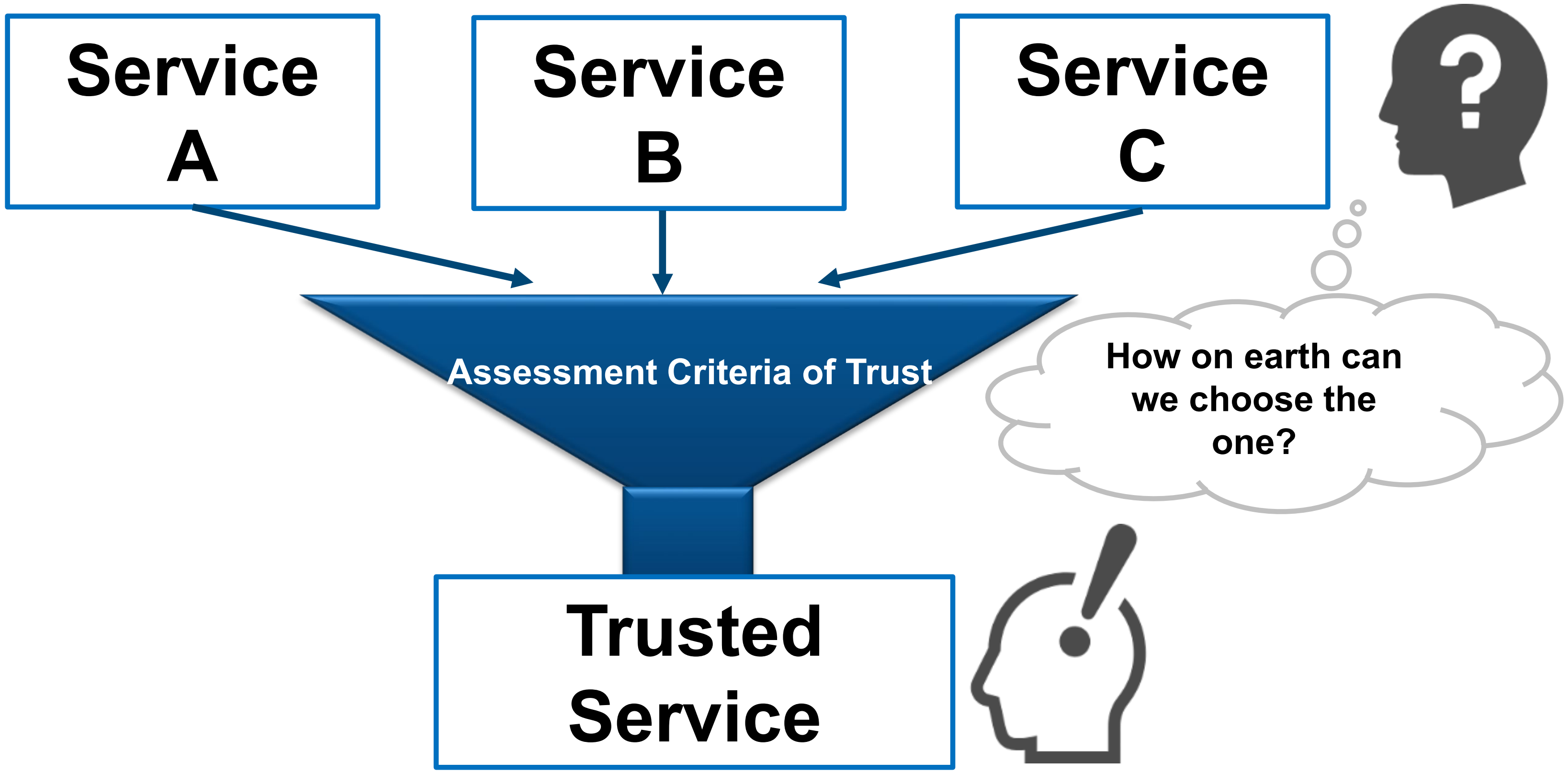
サイバートラスト株式会社（本社：東京都港区、代表取締役社長：眞柄泰利、以下：サイバートラスト）は、本日、ビジネスプロセスのデジタル化を促進するトラストサービス　「iTrust（アイトラスト）」シリーズの「iTrust　リモート署名サービス」　において、一般財団法人日本情報経済社会推進協会（会長：杉山　秀二、以下　JIPDEC）が実施するトラストサービス登録業務である「JCAN　トラステッド・サービス登録（リモート署名（電子契約））」※1 へ登録が完了したことをお知らせします。

JIPDEC ホームページ：JCAN トラステッド・サービス登録（電子契約）
https://itc.jipdec.or.jp/tl/cybertrust_econ.html

昨今、電子契約その他の書面の電子化において、サーバー側のプログラムで電子署名を行うリモート署名は、その利便性の高さから急速に普及しています。しかし、署名者の秘密鍵をサーバー側に預け、サーバーサイドで電子署名を行うリモート署名では、署名者の意志によって電子署名が付与されていることが非常に重要なポイントとなります。そのため、リモート署名を提供するサービスでは厳格な規程をもって確かにその規程に基づいて運用しているということが重要となります。

Selection of e-Contracting Services

- Criteria to select e-Contracting services are necessary.
- Especially for SMEs, trustworthy e-Contracting services should be clearly identified.



Service A

Service B

Service C

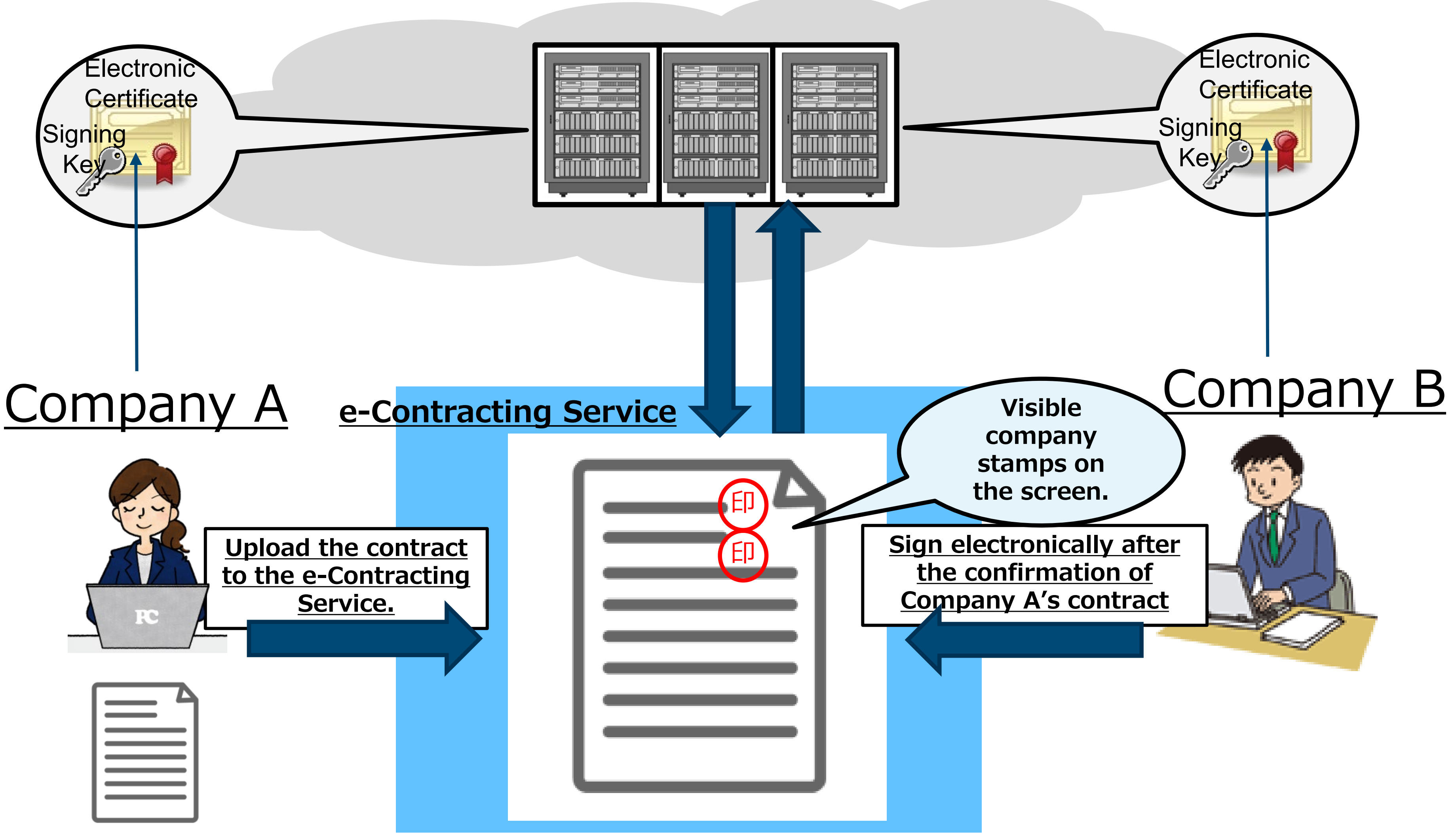
Assessment Criteria of Trust

How on earth can we choose the one?

Trusted Service

Cloud based e-Contracting Services

- **Simple operation with cloud based certificates management.**


Electronic Certificate
Signing Key
Electronic Certificate
Signing Key
Company A
e-Contracting Service
Company B
Visible company stamps on the screen.
印
印
PC
Upload the contract to the e-Contracting Service.
Sign electronically after the confirmation of Company A’s contract

Assessment Items of Certification Authority

JCAN Trusted Service Registration （Certification Authority）

User Management

- ■ Method of issuance application
- ■ Verification of Existence
- ■ Account Management

…etc.

Key Management

- ■ User Key management
- ■ Certification Authority Key management
- ■ Authentication
- ■ Authorization verification
- ■ Cryptographic Module

…etc.

Technical Monitoring

- ■ PACS
- ■ Monitoring
- ■ Unauthorized access
- ■ Interception and Falsification prevention measure
- ■ Misrecognition prevention measures
- ■ FW, IDS

…etc.

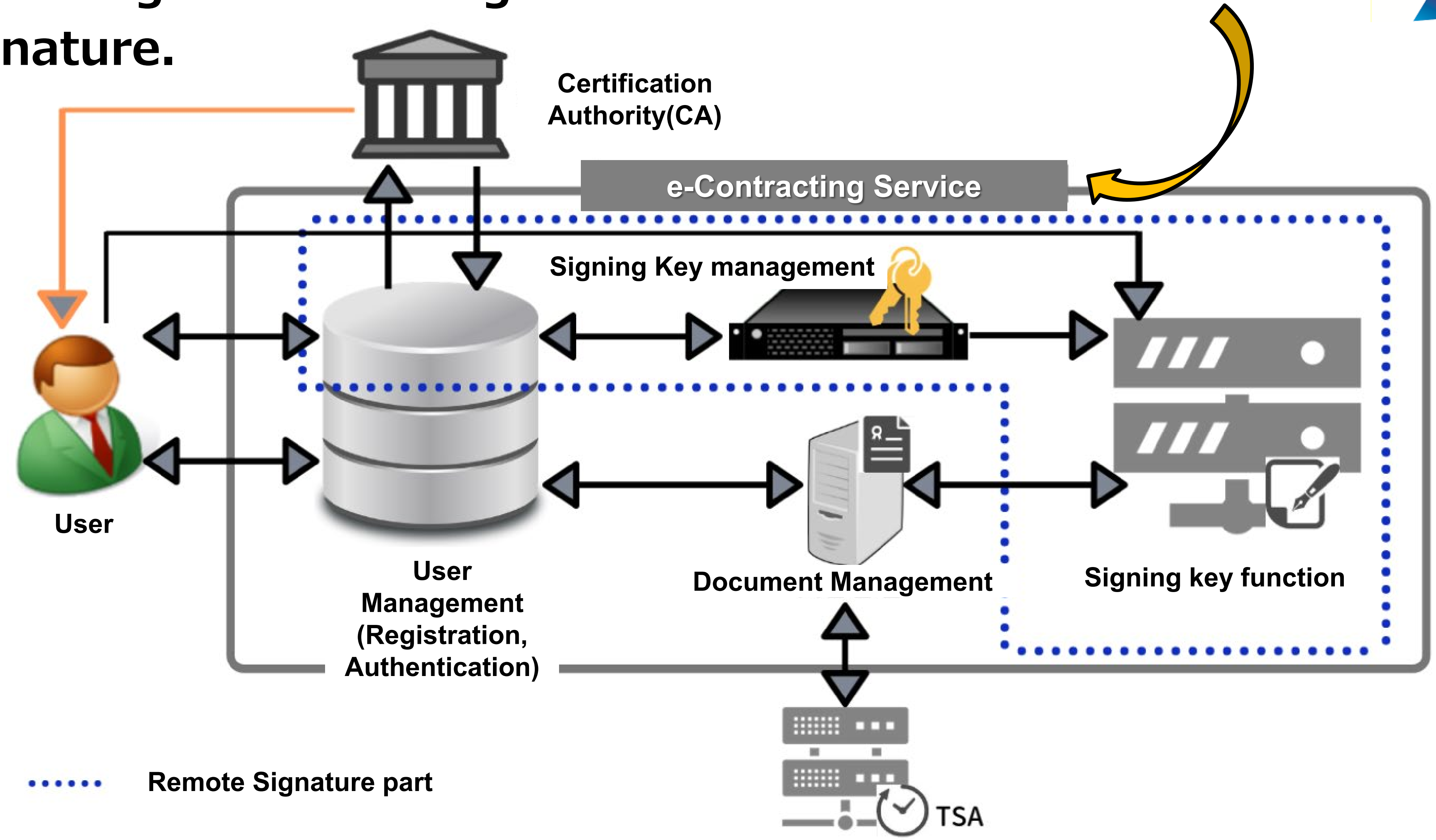
Others

- ■ Training
- ■ Certification Practice Statement (CP/CPS)
- ■ Business continuity plan
- ■ Internal audit
- ■ Risk assessment

…etc.

Registration of e-Contracting Services

- Assessing e-Contracting Services with cloud based e-Signature.


Certification Authority(CA)
e-Contracting Service
Signing Key management
User
User Management (Registration, Authentication)
Document Management
Signing key function
TSA
Remote Signature part

Assessment Items of e-Contracting Services

JCAN Trusted Service Registration(e-Contracting) – Remote Signature

User Management

- User verification
- User’s information management
- Account management

…etc.

Signing Key Management

- Generation of Signing Key
- Signing Key and User identification management
- Protection of Signing Key

…etc.

Electronic Contract Management

- Signature verification mechanism
- Access control to electronic contract

…etc.

Electronic Signature Function

- Electronic signature environment
- Set of Long-term signature

…etc.

Others

- Training
- Business continuity plan
- Internal audit
- Risk assessment

…etc.

5．Toward the Realization of Trust

- Complete digitization of business documents
- Prevention of falsification of data and spoofing
- Adoption as procurement criteria, etc.
- Cooperation with International standardization activities
- Cooperation with assessments for other cloud based services

JTS Adopted as Bidding Requirements of Acquisition, Technology & Logistics Agency

■ **Electronic Certificate fulfilling the registration criteria is regarded as it is equivalent to the Public Electronic Certificate.**

・**Public Notice No. 163 dated September 14th, 2018**

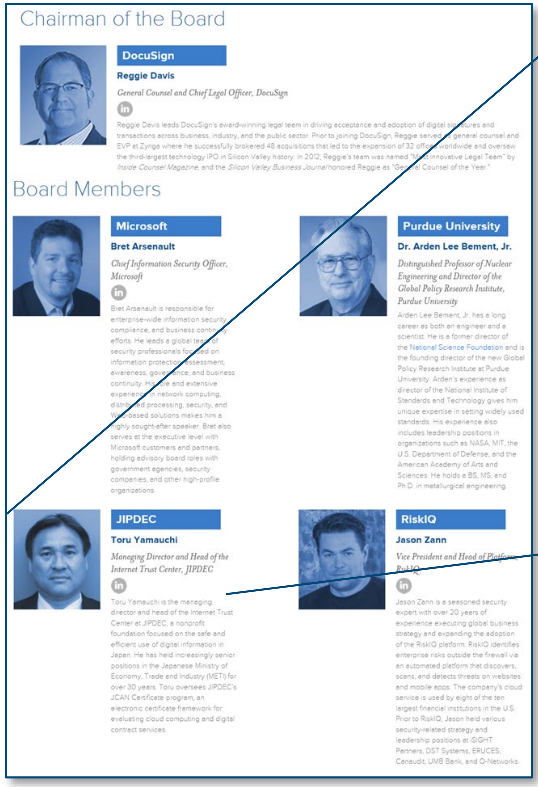
（Excerpt from the Specification）

Issued Electronic Certificate shall be the electronic certificate issued by the Certification Authorities fulfilling “Web Trust for CA Criteria”, “ETSI Standards” or “JCAN Trusted Service Registration Criteria”.

International Cooperation of Electronic Business Environment

■xDTM Standard Association

Established in order to develop and manage the standards related to digital transaction management.
Consists of more than 300 companies and governmental non-profit organizations mainly from the US.
JIPDEC became a member in 2017.



Chairman of the Board

DocuSign

Reggie Davis

General Counsel and Chief Legal Officer, DocuSign

Reggie Davis leads DocuSign's award-winning legal team in driving acceptance and adoption of digital signatures and transactions across business, industry, and the public sector. Prior to joining DocuSign, Reggie served as general counsel and EVP at Zynga where he successfully brokered 48 acquisitions that led to the expansion of 32 offices worldwide and oversaw the third-largest technology IPO in Silicon Valley history. In 2012, Reggie's team was named "Most Innovative Legal Team" by *Inside Counsel Magazine*, and the *Silicon Valley Business Journal* honored Reggie as "General Counsel of the Year."

Board Members

Microsoft

Bret Arsenault

Chief Information Security Officer, Microsoft

Bret Arsenault is responsible for enterprise-wide information security, compliance, and business continuity efforts. He leads a global team of security professionals focused on information protection, assessment, awareness, governance, and business continuity. His role and extensive experience in network computing, distributed processing, security, and Web-based solutions makes him a highly sought-after speaker. Bret also serves at the executive level with Microsoft customers and partners, holding advisory board roles with government agencies, security companies, and other high-profile organizations.

Purdue University

Dr. Arden Lee Bement, Jr.

Distinguished Professor of Nuclear Engineering and Director of the Global Policy Research Institute, Purdue University

Arden Lee Bement, Jr. has a long career as both an engineer and a scientist. He is a former director of the National Science Foundation and is the founding director of the new Global Policy Research Institute at Purdue University. Arden's experience as director of the National Institute of Standards and Technology gives him unique expertise in setting widely used standards. His experience also includes leadership positions in organizations such as NASA, MIT, the U.S. Department of Defense, and the American Academy of Arts and Sciences. He holds a BS, MS, and Ph.D. in metallurgical engineering.

JIPDEC

Toru Yamauchi

Managing Director and Head of the Internet Trust Center, JIPDEC

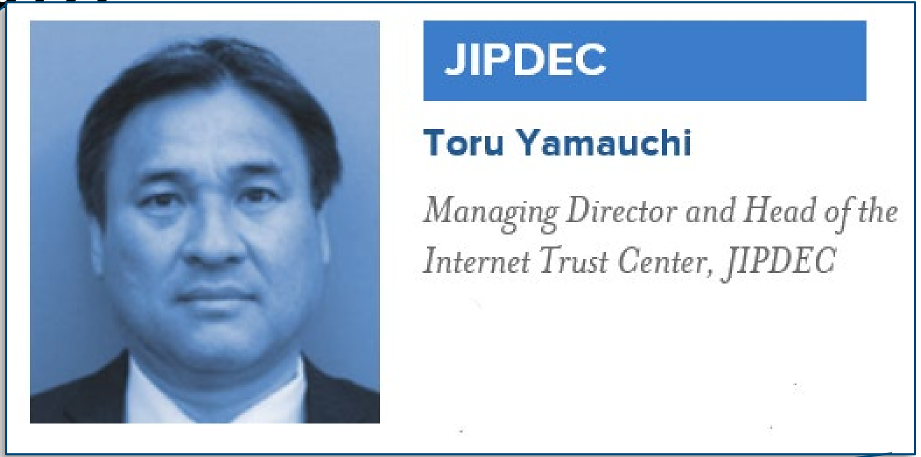
Toru Yamauchi is the managing director and head of the Internet Trust Center at JIPDEC, a nonprofit foundation focused on the safe and efficient use of digital information in Japan. He has held increasingly senior positions in the Japanese Ministry of Economy, Trade and Industry (METI) for over 30 years. Toru oversees JIPDEC's JCAN Certificate program, an electronic certificate framework for evaluating cloud computing and digital contract services.

RiskIQ

Jason Zann

Vice President and Head of Platform, RiskIQ

Jason Zann is a seasoned security expert with over 20 years of experience executing global business strategy and expanding the adoption of the RiskIQ platform. RiskIQ identifies enterprise risks outside the firewall via an automated platform that discovers, scans, and detects threats on websites and mobile apps. The company's cloud service is used by eight of the ten largest financial institutions in the U.S. Prior to RiskIQ, Jason held various security-related strategy and leadership positions at iSIGHT Partners, DST Systems, ERUCES, Canaudit, UMB Bank, and Q-Networks.



JIPDEC

Toru Yamauchi

Managing Director and Head of the Internet Trust Center, JIPDEC

Promote digitization of trustworthy documents and process automation as one of the Board Members.

Promotion together with Other Organizations

- **Japan Data Communications Associations**
  Japan Trust Service Forum

  ➡Cooperate in research and study, provide and share the information about trust services, and promote public awareness

- **Japan Trust Technology Association**

  ➡Discuss and develop technical guidelines about trust services, and promote public awareness

Use Case of JTS Registration

Strict Operation

■JTS Registration (Remote Signature(e-Contract))

✓Cybertrust Japan Co., Ltd.

- ●Protect User's Information
  - ◆Management of User Identification Information
  - ◆Management of User's Signing Key
- ●Security Management
  - ◆Signature Creation Environment
- ●Stable Operation of Business
  - ◆Risk Assessment
  - ◆Business Continuity Plan, etc.

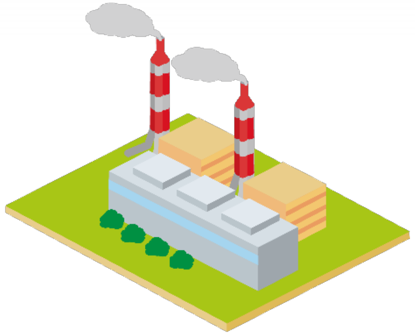
IT Industry

Use Case of JTS Registration

Strict Operation

■JTS Registration (LRA)

- ●Identity Verification
- ●Issuance and Operation Management of Electronic Certificates
- ●Lifecycle Management of Electronic Certificates, etc.



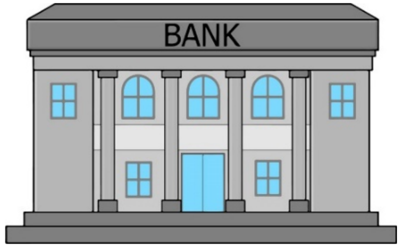
Critical Infrastructure Industry

✓**Docusign, Inc.**

Use Case of JTS Registration in Japan

✓**NS Solutions Corporation**

Spread of e-Contracting Use



JIPDEC for realizing the Internet Trust together with you.

なりすましをなくそう！
S/MIME
DKIM
エスマいぬ
ディーキいぬ
安心マーク