

Current Status and Recent Developments of Taiwan's Digital Trust and Electronic Signature Framework

- Taiwan's Current PKI Progress

Speaker: Derek Chen

Title/Position: Technical Manager,
Industrial Technology Research Institute (ITRI),
Taiwan



Taiwan's Digital Trust Cornerstone: GPKI

Taiwan operates a mature, hierarchical Government Public Key Infrastructure (GPKI), led by the Ministry of Digital Affairs (moda), with over two decades of stable operation.

Trust Anchor: Government Root Certification Authority (GRCA)

For Citizens

Ministry of the Interior CA (MOICA / Citizen Digital Certificate)

For Businesses

Ministry of Economic Affairs CA (MOEACA / Business Certificate)

For Healthcare

Ministry of Health and Welfare CA (HCA / Medical Personnel Certificate)

For Organizations

Ministry of Digital Affairs CA (XCA / Organization & Group Certificate)



The 2024 Electronic Signatures Act: **A Catalyst for Reform**

In 2024, Taiwan completed the first major amendment to its Electronic Signatures Act in over 20 years, aiming to remove adoption barriers and align with international standards.

Background

The original 2001 law no longer met the needs of modern digital transformation.

Old Barrier 1

A rigid 'explicit prior consent' requirement created friction in digital processes.

Old Barrier 2

Government agencies could 'announce' exclusions, hindering e-government adoption.

Goal of Amendment

To create a favorable legal environment for e-signature development and promote international interoperability.

References:

<https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=J0080037>
<https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=J0080038>
<https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=J0080039>

Core Principles of the New Act: **Functional Equivalence** & **Technology Neutrality**

The new act aligns with UNCITRAL and eIDAS principles, establishing the legal status of electronic forms while maintaining flexibility for technological innovation.

Establishing 'Functional Equivalence'

Article 4 stipulates: 'Electronic documents and electronic signatures shall not be denied legal effect solely because of their electronic form.'

Maintaining 'Technology Neutrality'

The law does not favor a specific technology (PKI or non-PKI), providing a legal foundation for all innovative signature solutions.

References: <https://www.netadmin.com.tw/netadmin/zh-tw/trend/0F35EB2B014A440A8C509FACC73FA614> | <https://moda.gov.tw/ADI/news/bulletin-board/11800> | <https://moda.gov.tw/ADI/news/latest-news/12516> | <https://www.kdan.com/zh-tw/blog/about/signature-la/> | <https://www.ey.gov.tw/Page/9277F759E41CCD91/7e0472e2-c917-4b41-b00b-e30a5927d7ae>

Two-Tier Legal Effect: **Electronic Signature** vs. **Digital Signature**

The new act precisely defines 'electronic signature' and 'digital signature,' granting the strongest legal advantage to digital signatures issued by permitted CAs.

Tier 1 (Broad): Electronic Signature

Legal Status

Possesses 'functional equivalence' and cannot be denied legal effect.

Tier 2 (Specific): Digital Signature

Definition

An electronic signature using a certificate from a government-permitted Certification Authority (CA).

Legal Status

Has the 'presumptive effect' of being a personal signature or seal.

Legal Advantage

In a dispute, the burden of proof shifts to the party challenging the signature.



Removing Adoption Barriers: Driving Widespread Use

The new act introduces two key procedural changes to mandate the full adoption of digital processes in both public and private sectors.



Change 1: Shift to 'Presumed Consent'

Only requires providing a 'reasonable opportunity to object'; if no objection is made, consent is presumed.

Significantly lowers the barrier for businesses and the public to adopt digital processes.



Change 2: Mandate Adoption for Government Agencies

Deletes the old provision allowing agencies to 'announce' exclusions.

Exclusions now require a 'law' (Act of Parliament), forcing government-wide digitization.

Building International Bridges: Legal Framework & Subsidiary Laws

The new act and its subsidiary laws create an innovative legal framework for international alignment, enabling flexible and practical cross-border technical cooperation.

Main Act Addition: 'Technical Interoperability Cooperation'

Article 15 adds 'technical interoperability cooperation' as a new principle for permitting foreign CAs.

Subsidiary Law Innovation: 'Direct Approval' Mechanism

Allows Taiwan's competent authority to establish technical alignment with foreign governments or international organizations.

Upon completing a 'CA list exchange,' approval can be granted directly, bypassing case-by-case applications.

Proven Prototype

Taiwan signed an MOU with Lithuania (EU member), which recognizes Taiwan's XCA certificates.

References: <https://moda.gov.tw/en/press/press-releases/5309> |

<https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=J0080037>

<https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=J0080038>

<https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=J0080039>

Governance: The 'Service Capacity Registration' for Trusted TSPs

The Ministry of Digital Affairs has established a rigorous registration mechanism to proactively create a national list of qualified Trust Service Providers (TSPs) for the public and private sectors.

Purpose: To inventory industry capabilities, create a reliable procurement reference, and ensure transparency.

01
Service Execution & Management
(incl. info-sec & personal data systems)

02
Professional Personnel
(incl. dedicated info-sec & personal data staff)

03
External Performance Record
(within the last 2 years, with evidence)

04
Sound Financial Status
(net worth must not be negative)

Ongoing Governance: 2-year registration term, with follow-up tracking and revocation penalties.

References: <https://moda.gov.tw/ADI/services/apply-serivces/energy/9345> | <https://www-api.moda.gov.tw/File/Get/adi/zh-tw/x2LZSeATG3pfpH9>

Industry Capacity: Taiwan's Qualified TSP Partners

The TSPs currently approved by the government demonstrate diverse and complementary capabilities, ready to meet various international interoperability needs.

No.	English Name	Key Capability
1	CHANGING Information Technology Inc.	Provides electronic signature, document management, and cloud form system integration solutions; specializes in e-Government and enterprise workflow automation.
2	ThinkCloud Technology Co., Ltd.	Offers cloud-based e-signature and digital identity verification services (e.g., iSignCloud); focuses on electronic signatures and cross-platform API integration.
3	Kdan Mobile Software Ltd.	Expert in mobile and cloud document solutions; provides PDF signing, digital workflow, and Document AI services (e.g., DottedSign).
4	TRADE-VAN Information Services Co.	Provides EDI (Electronic Data Interchange), e-invoice, and digital signature services; strong in government and enterprise data exchange compliance.
5	Legal Tech, Inc.	Specializes in legal technology and e-signature platforms; integrates automated legal documentation, digital signing, and compliance certification.
6	TAIWAN-CA Inc.	One of Taiwan's main Certificate Authorities (CAs); provides digital certificates, e-signature verification, and trusted identity services.
7	Je Pun International Co., Ltd.	Provides smart card solutions, HSM (Hardware Security Module), and PKI applications; focuses on cybersecurity and identity authentication technologies.
8	Penpower Technology Ltd.	Known for handwriting recognition, signature pad, and digital signing solutions; integrates hardware and software to support electronic signing workflows.

References: <https://www-api.moda.gov.tw/File/Get/adi/zh-tw/P292rdgQTF9xXP3>

Proven Use Cases: Deep Application in Critical Sectors

Taiwan's digital trust solutions have been battle-tested through long-term application in high-sensitivity and high-innovation sectors with strict legal requirements.



Depth (Healthcare)

The GPKI/HCA system has operated securely for decades, issuing hundreds of thousands of medical personnel certificates.

Deeply applied in Electronic Medical Records (EMRs), central infectious disease tracking, and epidemic information exchange.



Innovation (FinTech)

TSP (Kdan) partnered with KGI Securities to launch Taiwan's first remote "Video e-Signature" service.

Successfully combines financial-grade KYC with e-signatures, replacing traditional in-person counter processes.



Two Invitations for APKIC Members Collaboration

Taiwan extends two concrete pathways for collaboration with APKIC members, designed to create tangible cross-border digital trust solutions.



Invitation 1: Service Landing Pilots

We invite members to partner with Taiwan's qualified TSPs to co-develop cross-border pilots in commerce, finance (KYC), or healthcare.



Commerce

Cross-border e-commerce contracts and digital agreements



Finance (KYC)

Know Your Customer processes and account opening workflows



Healthcare

Telemedicine consultations and cross-border medical records

These pilot programs will demonstrate real-world interoperability and create templates for broader regional adoption.

Invitation 2: Technical Alignment & TRUST List Exchange

We invite government authorities to engage in G2G or A2A(Alliance-to-Alliance) dialogue, using our new “Direct Approval Mechanism,” which is based on the principle of international mutual recognition and technical interoperability, to achieve a trusted list exchange.

- ❏ **Direct Approval Mechanism** : Taiwan's streamlined mechanism enables mutual recognition of TSPs between jurisdictions, facilitating trusted list exchanges and reducing barriers to cross-border digital trust services.

This technical alignment will enable seamless recognition of digital signatures across borders, supporting the growth of digital trade and services throughout the Asia-Pacific region.

References & Resources

<https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=J0080037>
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**ITRI**
Industrial Technology
Research Institute



Derek Chen Technical Manager

Application Integration Technology Dept.
Division for Infra & Cyber Security
Information and Communications Research Laboratories

9F., No.315, Songjiang Rd., Zhongshan Dist.,
Taipei City 104070, Taiwan, R.O.C.
Tel : +886 2 2515 9665 ext. 161
Mobile : +886 973 301838
E-mail : derekchen@itri.org.tw

www.itri.org.tw

THANKS FOR YOUR LISTENING

We welcome inquiries about e-signatures, certification authority (CA) matters,
and potential collaboration opportunities.