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

- Taiwan's Current PKI Progress

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# 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

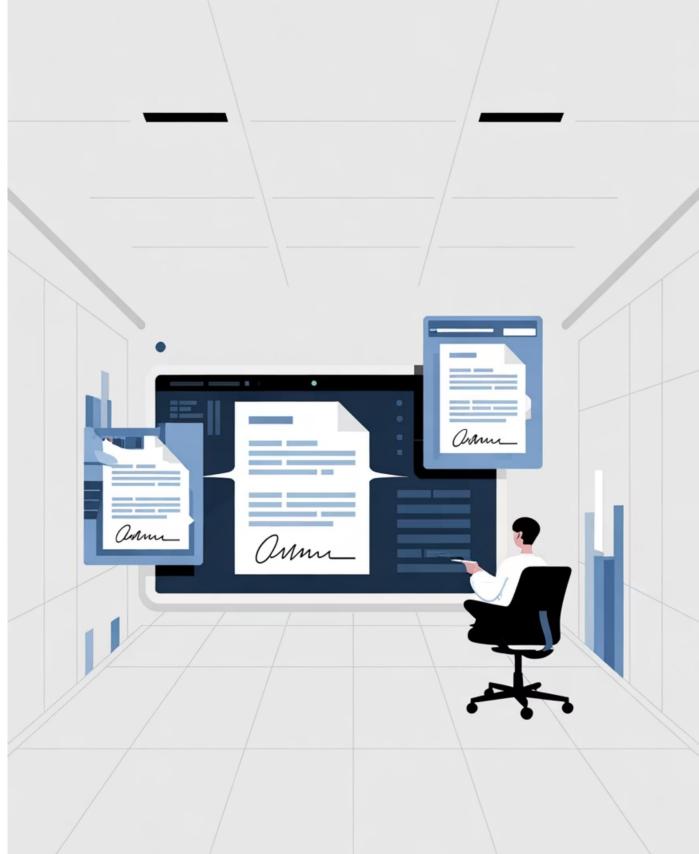
Ministry of Economic Affairs CA (MOEACA / Business Certificate)

#### 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.

## 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.

# 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**

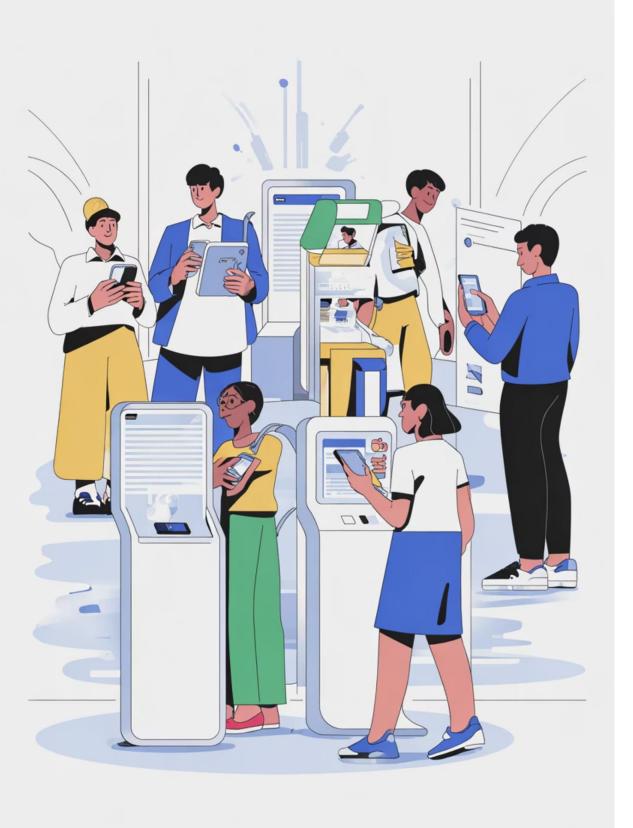
An electronic signature using a certificate from a government-permitted Certification Authority (CA).

#### **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.

# **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	02	
Service Execution & Management	Professional Personnel (incl. dedicated info-sec & personal data staff)	
(incl. info-sec & personal data systems)		
03	04	
<b>External Performance Record</b>	Sound Financial Status	
(within the last 2 years, with evidence)	(net worth must not be negative)	

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

## **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, esignature 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.

# Proven Use Cases: Deep Application in Critical Sectors

Taiwan's digital trust solutions have been battletested through long-term application in highsensitivity 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 https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=J0080038 https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=J0080039



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## THANKS FOR YOUR LISTENING

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