Asia PKI Consortium

Building Trusted Digital Ecosystem

Public Trust / Standards / DPI

GA-SC Meeting

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Global Public Trust

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Moving towards global trust

Asia PKI Consortium's initiatives in strengthening cross-border digital trust.

1. Global platforms to showcase the importance and facilitate discussions. Eg: G20, Regional alliances, etc
2. Working with EU Commission's efforts on TCTL program.
3. Collaborative efforts among national authorities e.g., NEAC (Vietnam), DICT (Philippines), KISA (South Korea), CCA (India), SriLanka, Myanmar, Bhutan, Indonesia, Brunei and so-on.
4. Emphasizing mutual recognition and importance of a regional trusted list framework that aligns with global ISO and ETSI models.
5. Technical pilots with various regions / economies.
6. Advocating the adoption of "Standards" based trust ecosystem to make it globally compatible.

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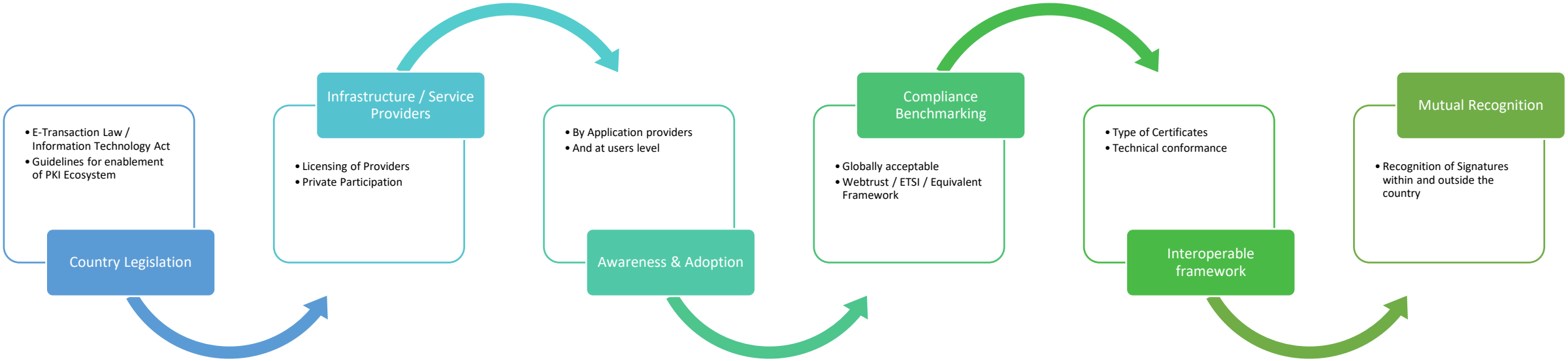
Mutual Recognition approach

Mutual Recognition and Interoperability of PKI is an important goal, and the Consortium works towards this direction in several activities, including:

1. Legislative and Policy benchmarking
2. Trust Service Provider ecosystem building
3. Application providers and user maturity
4. Assurance of Identity Vetting and Key protection
5. Compliance Benchmarking (Webtrust / ETSI)
6. Building Technical Interoperability



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Why Public Trust

1. Cross-Border Digital Signature Validation between enterprises through **recognized TSPs**
2. e-Government Services and Citizen Authentication through a **national trust framework**
3. Cross-Border Trade and Customs for paperless trade
4. Cloud-Based Remote Signing and Identity Services
5. IoT and Device Identity Verification
6. Public-Facing Web Trust (SSL / TLS Certificates). For eg: QWAC

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Challenges and Observations

1. Fragmentation in trust list governance (EU, Asia, Latin America, Africa).
2. Lack of real-time validation and automated trust interoperability.
3. Need for policy alignment with technical standards and cryptographic agility (PQC readiness).
4. Challenges of private sector inclusion in “public trust lists”.

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Future Directions

1. Working towards “Global Digital Trust” models linking national trusted lists through Standards like ISO-aligned metadata profiles.
2. Working on the Role of AI and automation in trust discovery, validation, and lifecycle management.
3. The move toward Dynamic Trust Lists and machine-verifiable compliance.
4. Supporting collaboration through ISO/ETSI/ITU + global organizations like Asia PKI Consortium and Cloud Signature Consortium.

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A trusted & BORDERLESS digital world

"Public trust isn't static…

it's a living fabric woven by standards, transparency, and collaboration.

Our collective mission is to make trust portable, auditable, and borderless."

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Digital Public Infrastructure (DPI)

DPI operationalizes Public Trust at population scale, bridging standards → systems → citizens.

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One of the most compelling modern use cases

Digital Public Infrastructure (DPI) refers to foundational digital systems — like digital identity, payments, and data exchange layers — that enable inclusive, secure, and interoperable digital ecosystems.

Some Examples:

1. EU – eIDAS and European Digital Identity Wallet
2. India – Aadhaar, eSign, DigiLocker, UPI
3. Singapore – SingPass and SGFinDex
4. Africa – MOSIP-based ID frameworks in Ethiopia, Morocco, Sierra Leone

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DPI are anchored in Public Trust principles

DPI Layer	Underlying Trust Element	Standard / Framework Reference
Digital Identity	PKI-based credentials, trusted certification authorities	ISO/IEC 18013 (mDL), ETSI EN 319 411, etc
Digital Signatures / eSign	Signatures traceable to trusted lists and root CAs	ISO/IEC 14533, ETSI TS 119 612
Payments / Consent Systems	Authentic APIs, verified entities, secured communication	ISO 20022, FIDO, OAuth2 with certified endpoints
Data Exchange / Interoperability	Trusted endpoints, metadata governance, authentication	ISO/IEC 27001, 27560, 27557
Cross-Border Trust	Mutual recognition of trusted lists / root programs	ISO/IEC 21188, ETSI ESI, UN/CEFACT frameworks

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Public Trust Is Foundational for DPI

Without rooted trust and certified assurance chains, DPI cannot achieve:

- Authenticity → Is the digital identity really issued by a recognized authority?
- Integrity → Can we prove data hasn't been tampered with?
- Interoperability → Will other countries or systems accept the credential?
- Accountability → Can misuse be traced back to the source entity?

Public Trust — via trusted lists, audit standards, and root governance — is what transforms DPI from a national project into a globally interoperable infrastructure.

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Global Adoption Momentum

- G20 & World Bank: DPI is now part of the Digital Public Goods framework.
- UN/CEFACT: Trust frameworks and cross-border verifiable credentials are key enablers for digital trade.
- ETSI & ISO: Working towards DPI-aligned trust interoperability, where national lists can federate securely.
- Asia PKI Consortium: Actively working with national trust infrastructures for global interoperability

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Illustrative DPI Trust Flow

A citizen signs a digital consent for sharing KYC data through DPI.

- Signature verified via national CA on the trusted list.
- Data routed through authenticated API endpoints (secured by PKI).
- Consent receipt archived with timestamp and digital seal.

Entire process anchored in Public Trust principles, discoverable through ISO-compliant metadata.

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“Digital Public Infrastructure is the living embodiment of

Public Trust

when trust lists, standards, and certificates converge to empower every citizen to transact securely and globally.”

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Thank you!