



MINISTRY OF SCIENCE AND TECHNOLOGY OF VIETNAM
NATIONAL ELECTRONIC AUTHENTICATION CENTRE



Vietnam's PKI and Trust Services

Hong Kong - China, 2025

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1. Overview of PKI Development in Vietnam

❖ Two PKI Systems in Operation

- **National PKI** (NEAC - MST): serves individuals and organizations; Vietnam's focal point in international PKI cooperation.
- **Government PKI** (GCC - MND): serves government agencies and officers in performing their official duties.

❖ Key Role in Digital Transformation

- Supports secure e-Government, e-Business transactions, and digital citizen services.
- Ensures authentication, data integrity, and trust across the digital environment.

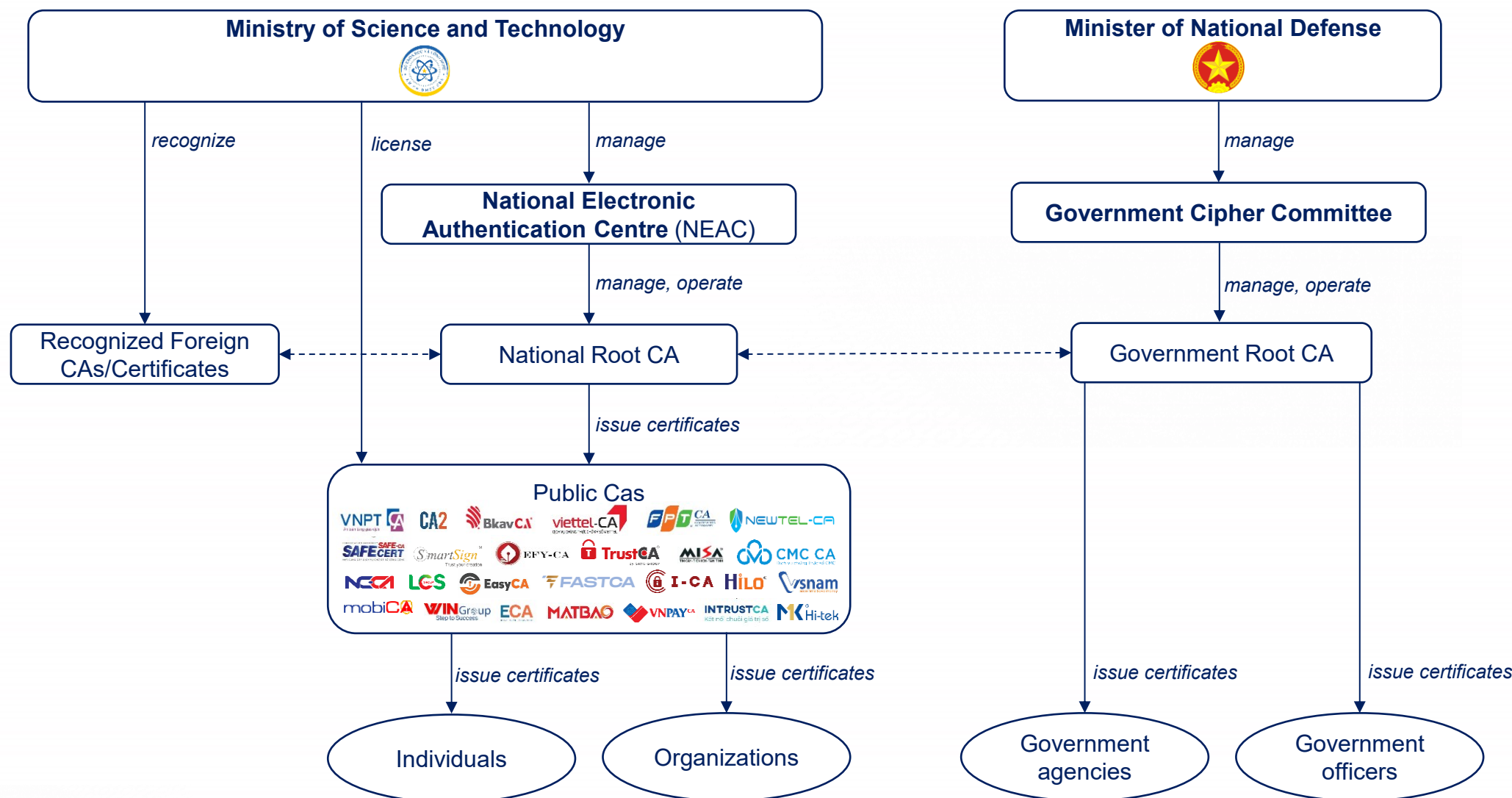
❖ Expanding to Trust Services

- Remote signing, SIM PKI, timestamping, electronic data message authentication service.
- Extending PKI toward a comprehensive trust-service ecosystem.

❖ Vision and Direction

- Building a unified, secure, and interoperable digital trust infrastructure.
- Continuing to strengthen cooperation with APKIC, regional partners, and international organizations.

2. PKI Structure and Key Participants



3. Legal and Regulatory Framework

Law No. 20/2023/QH15 on Electronic Transactions (replacing 2005 version)

Establishes the overall legal framework for electronic transactions, electronic signatures, and trust services.

Decree No. 68/2024/ND-CP on Specialized digital signatures for official use (Government PKI)

Regulates the issuance and use of digital certificates for the government agencies and officers in performing official duties.

Decree No. 23/2025/ND-CP on Electronic signatures and Trust services (replacing Decree No. 130/2018/ND-CP)

Regulates electronic and digital signatures and certificates; management, licensing, and supervision of trust-service providers.

Circular No. 06/2024/TT-BTTTT: *Regulates the recognition of foreign electronic signatures, certificates, and certification authorities (CAs) in Vietnam.*

Circular No. 15/2025/TT-BKHCN: *Specifies the technical requirements for digital signature software, verification software, and the connection gateway for public certification authority (CA) services.*

Circular No. 16/2025/TT-BKHCN: *Provides the standard templates and structure for Certificate Policy (CP) and Certification Practice Statement (CPS) of certification authorities.*

Circular No. 17/2025/TT-BKHCN: *Specifies the technical requirements for interoperability with the National Electronic Authentication Centre (NEAC - National Root CA).*

Circular No. 19/2025/TT-BKHCN: *Regulates the technical audit of electronic signatures and trust services.*

Draft national technical regulations (QCVNs) on electronic signatures and trust services (under development by MST).



3. Legal and Regulatory Framework

- ❖ Expanded legal scope for electronic signatures:
 - Introduces electronic signatures and electronic signature certificates in addition to digital signatures and digital certificates.
- ❖ New categories of trust services:
 - Adds timestamping (no longer just an add-on CA service) and electronic data message authentication, in addition to public digital signature certification services.
- ❖ Recognition of foreign trust service providers:
 - Regulates the recognition of foreign electronic signatures, certificates, and foreign CA organizations operating in Vietnam.
- ❖ Stricter licensing conditions for trust service providers:
 - Enhances requirements on personnel, financial capacity, and technical infrastructure for licensing and operation.
- ❖ Shift to post-audit technical supervision:
 - Replaces annual inspections with technical audits to ensure ongoing compliance and service reliability.
- ❖ Enhanced interoperability and cross-border trust mechanisms:
 - Strengthens international cooperation and alignment with global PKI standards.

4. Statistics and Implementation Status

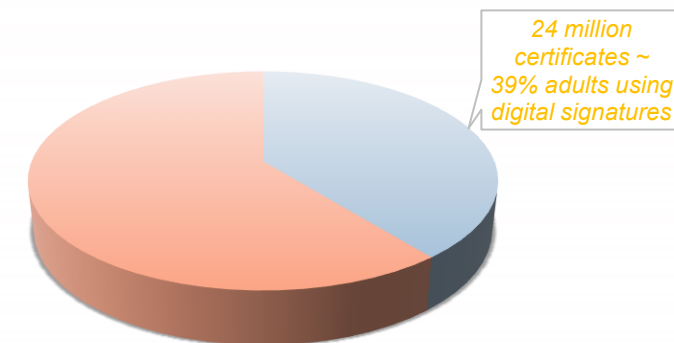
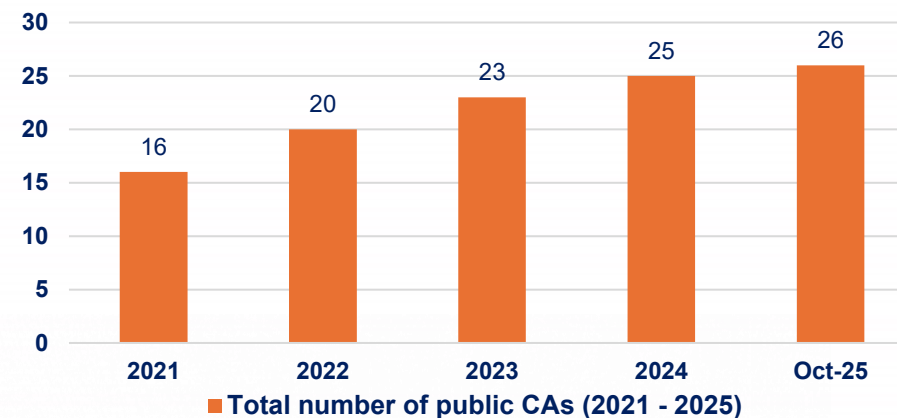
❖ Key Statistics of Vietnam's PKI (2021 - 2025)

– **26** licensed public CAs as of October 2025:

- 25 CAs providing token signing services;
- 14 CAs providing remote signing services;
- 3 CAs providing SIM PKI services;
- 7 CAs providing timestamp services.

(*Note: Some CAs provide more than one type of service)

– **24 million** issued certificates ~ **39%** adults population using digital signatures as of October 2025, increased by around **150%** compared to the same period last year.



Rate of adults using digital signatures (Oct-25)

5. Applications and Achievements

- ❖ Main purpose of digital signature usage in Vietnam
 - Key sectors such as taxation, e-invoicing, customs, finance, e-government, and e-commerce



5. Applications and Achievements

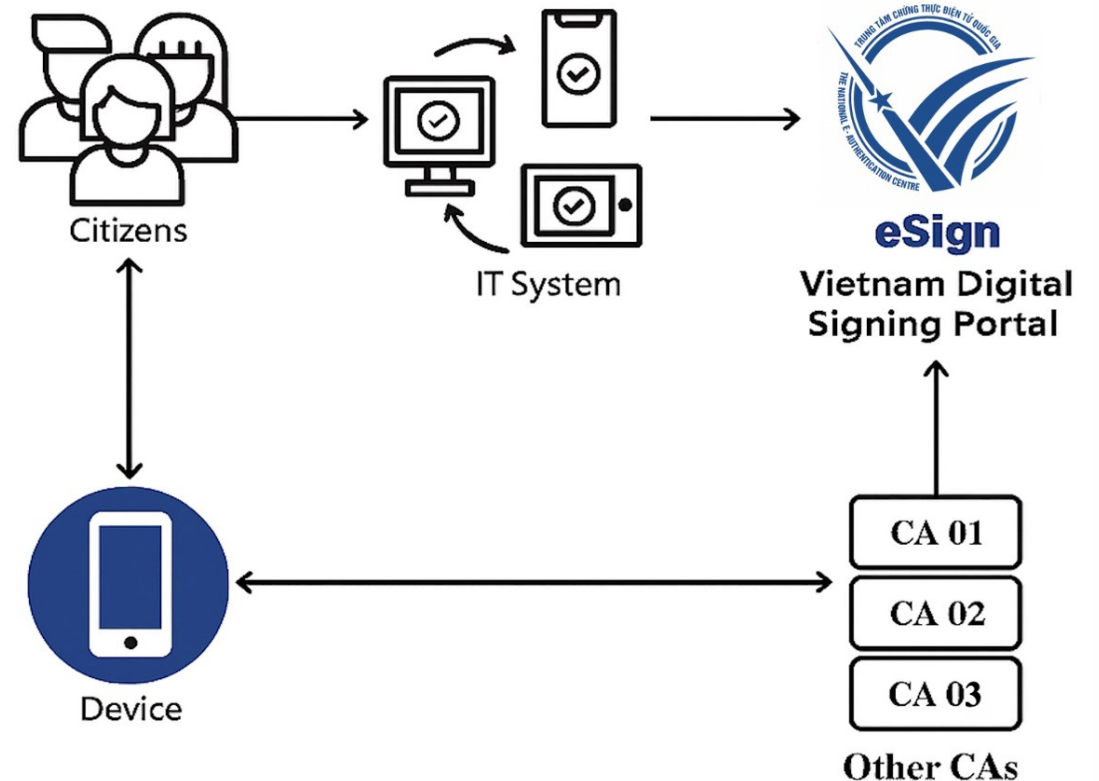
❖ eSign Gateway – Enhancing Digital Signature Connectivity:

- Centralized access to service information and usage statistics.
- Technical support and solution integration for signature applications.
- Simple, transparent connection model and procedures.
- Secure and interoperable signing with all licensed public CAs.
- Legal readiness ensured by Circular No. 15/2025/TT-BKHCN.

❖ Results:

- Successfully connected to all provincial public service portals nationwide.
- Recorded over 50 million access requests, demonstrating strong demand and effective integration.

eSign – Vietnam Digital signing Portal



6. Challenges and New Trends

❖ Key Challenges:

- Fragmented technical standards and lack of interconnect across platforms.
- Limited awareness and adoption among small organizations and local users.
- Ensuring legal compliance and cross-border recognition of digital signatures.
- Balancing security, usability, and cost in trust service deployment.

❖ Emerging Trends:

- Remote signing and mobile-based authentication.
- Integration with national digital identity systems.
- Quantum digital signatures for future-proof security.
- Regional cooperation for mutual recognition and PKI interoperability.

7. Conclusion and Recommendations

❖ Conclusion:

- Vietnam has advanced in nationwide deployment of digital signature and trust services.
- A complete legal framework supports trust services and cross-border recognition.
- eSign Gateway ensures secure, interoperable, and legally valid digital transactions.

❖ Development Orientation:

- Expand digital signature applications in digital government, economy, and society.
- Establish cross-border interoperability and mutual recognition mechanisms.
- Promote international cooperation in standards, recognition, and conformity assessment.

❖ Proposed Cooperation:

- Exchange information and share management and technical standards.
- Conduct interoperability testing and mutual CA recognition.



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Thank you!
Xin cảm ơn!