REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF INFORMATION AND COMMUNICATIONS TECHNOLOGY

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NATIONAL EXPORT CONGRESS 2020

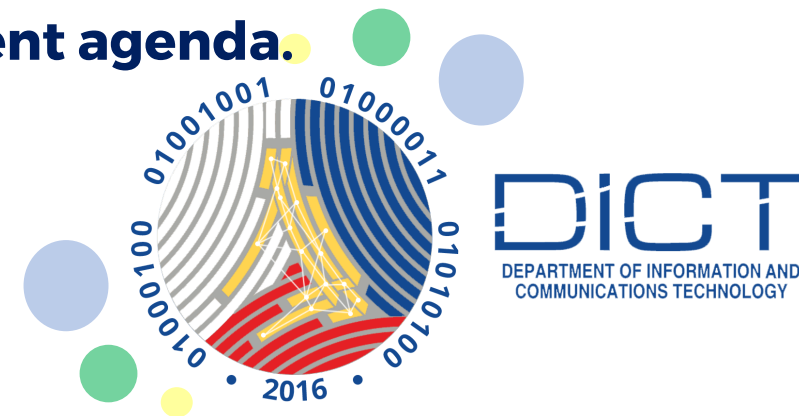**EMMANUEL REY R. CAINTIC**
Assistant Secretary for Digital Philippines
3 December 2020

DICT MANDATE

The Department of Information and Communications Technology (DICT) shall be **the primary policy, planning, coordinating, implementing, and administrative entity** of the Executive Branch of the government that will plan, develop, and promote the **national ICT development agenda.**
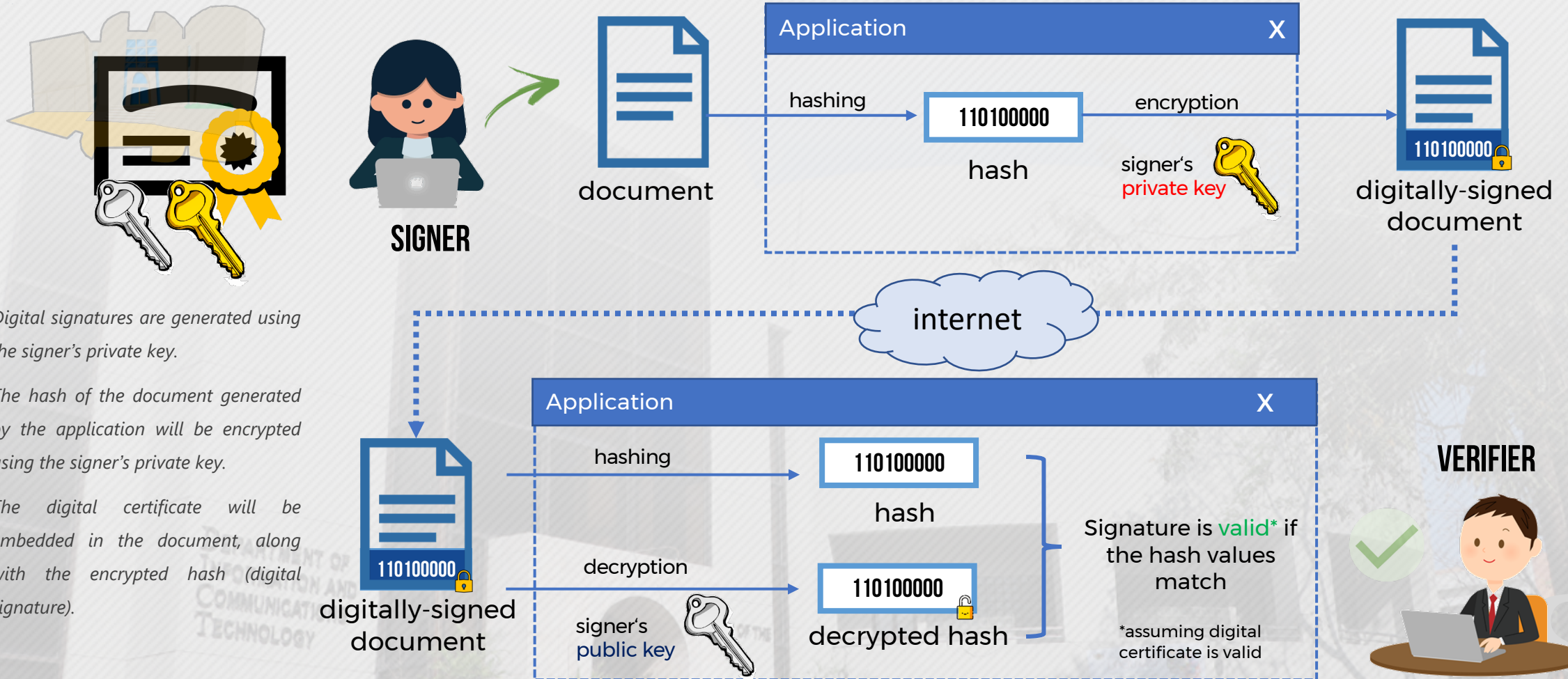
PHILIPPINE NATIONAL PUBLIC KEY INFRASTRUCTURE (PNPKI)

What is the Public Key Infrastructure (PKI)?

PKI is a system of processes, technologies, and policies that allows you to encrypt and sign data.

It facilitates the secure electronic transfer of information for a range of network activities such as e-commerce, internet banking and confidential email.

How digital signature works

SIGNER

document

Application X

hashing → 110100000 → encryption

hash

signer's **private key**

digitally-signed document
110100000

internet

Digital signatures are generated using the signer's private key.

The hash of the document generated by the application will be encrypted using the signer's private key.

The digital certificate will be embedded in the document, along with the encrypted hash (digital signature).

digitally-signed document
110100000

Application X

hashing → 110100000

hash

decryption → 110100000

signer's **public key**

decrypted hash

Signature is valid* if the hash values match

*assuming digital certificate is valid

VERIFIER

BENEFITS ON THE USE OF PNPKI

- Documents will be signed, certified, and routed virtually.
- Less human contact which results to reduction of red tapes.
- Reduce the cost of processing applications.
- Observance of authenticity, confidentiality, and integrity of information.

Support the automation of ICT Programs OF BOC and Other Trade-related Agencies

- Connectivity for all the government agencies concerned
- TradeNet
- BOC's Automation
- BIR's IRIS Project
- Digital Transformation of FDA, DA, etc.