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Paper
**THE PERUVIAN LEGAL FRAMEWORK AS SUPPORT
OF THE PAPER LESS CAPACITY BUILDING**

Successful Experiences in the Public Sector

THE PERUVIAN LEGAL FRAMEWORK AS SUPPORT OF THE PAPER LESS CAPACITY BUILDING

Successful Experiences in the Public Sector

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Digital Microform - DM

- **Digital Microform:** Digitalized Image of a document saved in a physical media technically suitable through a computer or electromagnetic process with the object that the image can be saved, seen, read and reproduced in printed copies essentially the same as the original document.
- For the recognition of legal effects, the DM must fulfill formal and technical requirements.

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Summary

1. Basic Concepts
2. Main Purposes of the Digital Microforms Legal System, Computer Law and its Principles
3. Peruvian Laws related with Digital Microforms
4. Official Infrastructure or Electronic Signatures
5. Peruvian Successful Experiences in the Public Sector
6. IT Legal Services and Software Made in Peru
7. Projects
8. Conclusions

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Digital Microform - DM

- **Microrecording:** Technical Process to obtain microforms (paper – digital) or directly from computer media or produced by computer (digital-digital).
- **Microarchive:** Systematized group (index, search, retrieval and reproduction in exact copies) of the material elements of support or storage of the digital microforms .

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1. Basic Concepts

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Digital Signature

Electronic signature that uses an asymmetric cryptographic technique based in a unique pair of keys that associates a private key with a public key mathematically related; in a way that, the persons that know the public key can not derived from it the private key.

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2. Main Purposes of the Digital Microforms Legal System, Computer Law and its Principles

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Computer Law and Digital Microforms

- One of the principal concerns of Computer Law has been how to create an electronic document with the same or more legal security than the traditional documents in paper.
- An efficient answer requires of the application of two principles:
 1. Principle of Functional Equivalency.
 2. Principle of Technological Neutrality.

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Main Purposes of the Digital Microforms Legal System

1. Replicate in the “virtual world” in the most reliable way the processes and common acts that take place in the “traditional or physical world”.
2. The Digital Microform must be used as “Proof” or “Evidence” causing in the Judges or Administrative Authorities the same or more legal conviction than the traditional document in paper.

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Principle of Functional Equivalency

- The legal relationships and acts executed by electronic means regulated by law have the same validity and effectiveness than the legal relationships and acts executed in traditional ways.
- The adequate use of IT allows to grant the same legal treatment to electronic and traditional legal relationships and acts.

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Computer Law and Digital Microforms

Computer Law:

1. Studies how to solve the problems derived from the intensive and massive use of the Information and Communications Technologies.
2. Through the application of its principles, institutions and own tools adequates the traditional legal relationships to the new “computer or virtual” reality.
3. Respects the legal institutions.

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Principle of Functional Equivalency

EXAMPLES:

DIGITAL SIGNATURE = HANDWRITTEN SIGNATURE
ELECTRONIC ADDRESS = HABITUAL ADDRESS
ELECTRONIC NOTIFICATION = PAPER NOTIFICATION
ELECTRONIC TIME STAMP = TRADITIONAL PAPER STAMP
CYBERNOTARIES = NOTARIES
DIGITAL MICRFORMS = PUBLIC DOCUMENT IN PAPER
MICROARCHIVE = PHYSICAL ARCHIVE
COMPUTER PROOF (EVIDENCE) = TRADITIONAL PROOF (EVIDENCE)



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Principle of Technological Neutrality

- All the technologies that comply with the **requirements and results established by law** can be used.
- The verification of these requirements and results is realized by using suitable and reliable technical means according to **national and international accepted legal and computer security standards.**

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Peruvian Laws related with Digital Microforms

1. **Legislative Decree N° 681 (10/11/1991)**
Regulates the use of advanced technologies on the subject of documents and archives (files) in private entities. (Digital Microforms, Microrecording and Microarchive)
2. **Law N° 26612 (05/21/1996)**
Regulates the transmission of Digital Microforms and the use of digital signature by Cybernotaries.

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Principle of Technological Neutrality

RESULTS THAT TECHNOLOGIES HAVE TO GUARANTEE IN ORDER TO RECOGNIZE THE ELECTRONIC DOCUMENT AS "EVIDENCE" WITH LEGAL VALUE:



- Immutability
- Wholeness (Completeness)
- Stability (Certainty)
- Durability
- Availability
- Legibility
- Formality

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Peruvian Laws related with Digital Microforms

3. **Legislative Decree N° 827 (06/05/1996)**
Extends the application of Legislative Decree N° 681 to all public entities with previous authorization of the Vice Minister of the Sector or Resolution of the Official of major hierarchy.
4. **Supreme Decree N° 009-1992-JUS (06/27/92) and Supreme Decree N° 001-2000-JUS (03/26/00)**
Regulates Legislative Decree N° 681, Law N° 26612 y Legislative Decree N° 827.

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3. Peruvian Laws related with Digital Microforms, Technical and Formal Requirements, Security and Legal Effects

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Peruvian Laws related with Digital Microforms

5. **Supreme Decree N° 002-98-ITINCI (02/21/98)**
Approves the Regulation of the technical requirements and procedures of the Organizations necessary to obtain the Certification of Technical Suitability for the Production of Microforms and its Storage in accordance with International Standards.
NTP 392.030-2: (National Peruvian Standard – Last Version 2005) Systems for the Production of Microforms and Electronic Archive Media → Obligatory recording in WORM media (Write Once, Read Many Times).
NO DELETE, NO RE - RECORDING.

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Technical Requirements DM

Peruvian National Standard: Manual and Procedures

The procedures (hw, sw and processes of the organizations) must guarantee the following **results**:

- a) The Microforms reproduce the original documents with absolute accuracy (exactness) and wholeness (completeness).
- b) The Microforms have the same or more durability, immutability and stability than the original documents.
- c) Obtention of microduplicates.
- d) Issue of Certified Copies.

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Legal Effects

The DM that complies with all the technical and formal requirements:

- ✓ Substitutes for all legal effects the original document.
- ✓ Has the presumption of Public Faith before judicial, extra judicial or administrative authorities.
- ✓ As it occurs with Public Documents, the legal value of the DM can be sustained by the Cybernotary or Notary with Certification before any authority.

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Formal Requirements DM

1. The Microrecording Process must be authenticated by a Cybernotary or a Notary with the technical and legal qualifications recognized in a Certificate.
2. Governmental Authorizations.
3. The public entity must have certified the Process of Production of Microforms.

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Other Peruvian Laws related with Digital Micrforms

- **Law N° 27269**
Digital Signature and Certificates Law (05/28/2000)
- **Supreme Decree N° 004-2007-PCM**
Rules the Official Infrastructure of Electronic Signature (01/14/2007)

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Digital Microforms and Security

The accomplishment of the technical and formal requirements guarantee that the Digital Microforms comply with the four (4) levels of SECURITY internationally imposed:

1. Physical
2. Logic
3. Procedures of the Organization
4. Legal

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Declaration or Statement of Will by electronic media

Law N° 27291. Modifies the Civil Code allowing the use of electronic media to communicate the declaration or statement of will and the use of electronic signature.

Article 141-A.- Formality. When law establishes that the statement of will has to be done through a **formal act or requires a signature**, it can be generated or communicated by electronic media, optical or any other similar.

In the case of Public Instruments, the competent authority must authenticate the media used and save a complete version for further consultation or reference.

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Complementary Laws

- Law 27444 – *General Administrative Procedure Law*. Article 153.3: Regulates the procedures and archive (record) of electronic files using digital microforms.
- Civil Procedure Code*. Probatory or Evidenciary Means.

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National Registry for Identification and Civil Status RENIEC

- As Certification Entity for the Public Sector (ECERNEP) will issue the certificates to the Certification Entities of the Peruvian State and proposes policies and applicable standards.
- As Certification Entity for the Public Sector authorized by INDECOPI (ECEP) will issue or cancel certificates of digital signature to persons and institutions that can be used in procedures and to all the public officers.
- As Registration or Verification Entity for the Public Sector (EREP) will check the information of the applicant of a certificate of digital signature.

www.reniec.gob.pe

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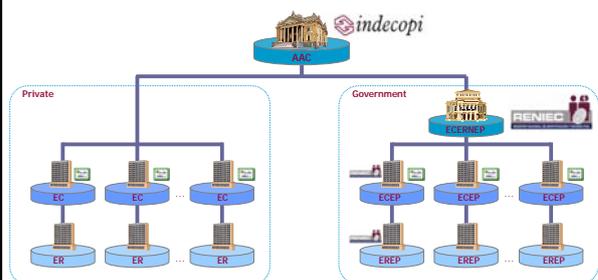


4. Official Infrastructure of Electronic Signatures PKI Perú

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National Registry for Identification and Civil Status RENIEC



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National Institute for the Defense of Competition and Intellectual Property INDECOPI

NATIONAL ADMINISTRATIVE AUTHORITY
RESPONSIBLE OF THE:

- AUTHORIZATION of the Certification and Registration or Verification entities (Digital Signature).
- RECOGNITION of technological standards applicable to the Official Infrastructure of Electronic Signatures.
- SUPERVISION of the Infrastructure.
- IPR Protection

www.indecopi.gob.pe

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5. Peruvian Successful Experiences in the Public Sector

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RENIEC



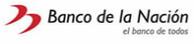
- Works with **digital signatures and digital microforms**. The Process of Production of Microforms is Certified according to Law and Standards.
- Has developed its own software and uses software from other companies too.
- Actually, the documents that are part of this Process are the Birth, Marriage and Death Registry Acts of the Citizens. The project includes documents from all the country.

www.reniec.gob.pe

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NATION'S BANK

- Peruvian National Bank  el banco de todos
- Actually is following the Procedure to obtain the Certification of the Process of Production of Microforms including Microfilms and Digital Microforms.

www.bn.com.pe

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CONASEV



National Commission for the Supervision of Enterprises and Stock Market – CONASEV

- 95% Implementation of Paper Less Procedures
- Use of Digital Signature
- Use Digital Microforms / Microsoft Word® FORMAT
- Electronic Procedures - MVNet
- Certified Process of Production of Digital Microforms
- Certified Microarchive

www.conasev.gob.pe

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6. IT Legal Services and Software made in Perú

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National Superintendence of Taxation and Customs - SUNAT



- Electronic tax declarations.
- Use of digital signatures.
- Use of digital microforms applied to customs declarations or statements.
- Certified Process of Production of Digital Microforms.
- **Electronic Seizure** (Digital intermediation with the participation of a Cybernotary/Notary. Sunat sends to the Bank the electronic message of the seizure of an account)

www.sunat.gob.pe

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Cybersec Consult

IT LEGAL SERVICES

- Counsel
- Staff of Cybernotaries
- Digital Certification
- Digital Intermediation
- Training

CLIENTS

Institutions / companies from the Public and Private Sector

- Implementation of paperless systems
- Electronic documents management
- Digital archives
- Secure electronic transmission of documents with legal value

<http://www.cybersec.com.pe/>

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ZyTrust S.A. www.zytrust.com



- Peruvian company that develops software for digital signatures and PKI solutions www.zytrust.com
- Results: applications of millions of digital signatures:
 - 30 millions of documents in PDF format.
 - 22 millions of images in JPG format.
 - 1.4 millions of documents in JPG format.
 - 0.8 millions of documents in TIFF format.

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7. Projects

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ZyTrust S.A. www.zytrust.com

Principales productos:

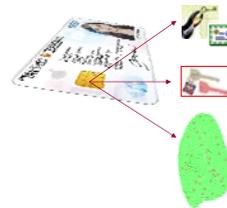
- ZySignerRobot: 
- ZySignerBatch: 
- ZySignerPDF: 

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Project from RENIEC

- eDNI – Electronic National Identity Document (RENIEC)

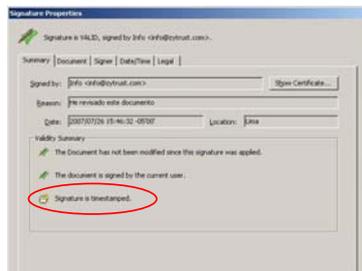


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ZyTrust S.A. www.zytrust.com

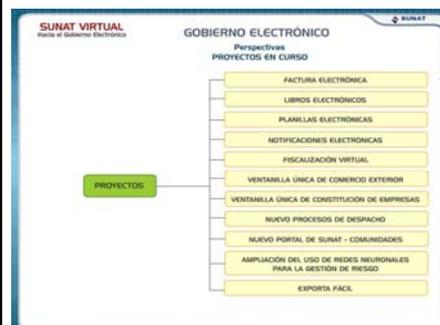
- Service of time stamping
- PKI for companies



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Projects from SUNAT



Electronic Invoice, Electronic book-keeping, Electronic Payroll, Electronic Notice, Electronic Verifications and Easy Export

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8. Conclusions

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Thank you for your kind
attention



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Conclusions

1. Peruvian laws are based on legal institutions and do not rely on “electronic models”.
2. Peruvian legal framework related to Computer Law is integrated within the national legal system coherently and efficiently.
3. Digital Microforms constitute an “ANSWER” to the security of electronic documents and transactions.

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Conclusions

4. The promotion and implementation of uniform policies and standards to SECURE electronic transactions with LEGAL VALUE will enhance and encourage the development of e-commerce in our countries.
5. Peru has successful experiences in the Public Sector and a solid legal framework but it is only the first stage in e-commerce development.
6. The Peruvian Private Sector has the capacity to offer legal counsel related to IT and to develop software and technological solutions for the implementation of PKIs and paperless processes.

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