

## THE PAPERLESS AGE

## NEXT THING WE NEED: LONG TERM ARCHIVING SYSTEMS

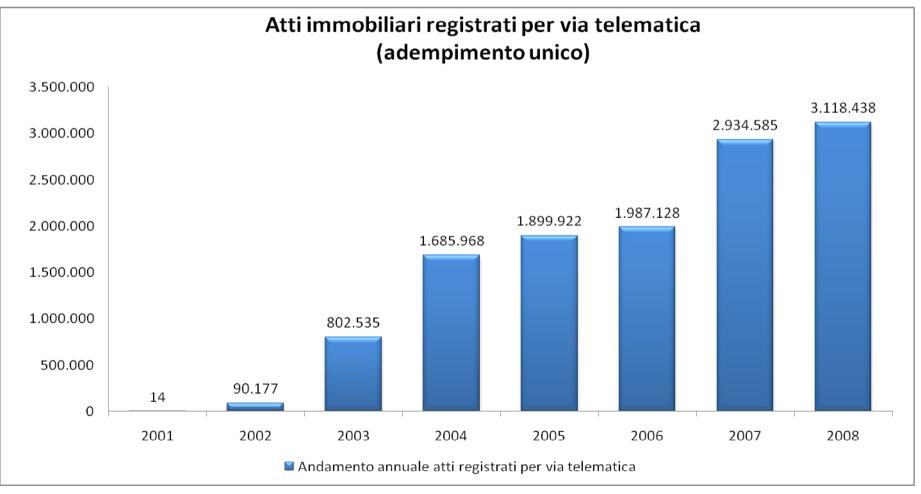


Every year Italian Civil Law Notaries produce millions of digital documents, that are sent to Public Registers (Real Estate, Companies Register)

Let's see some figures

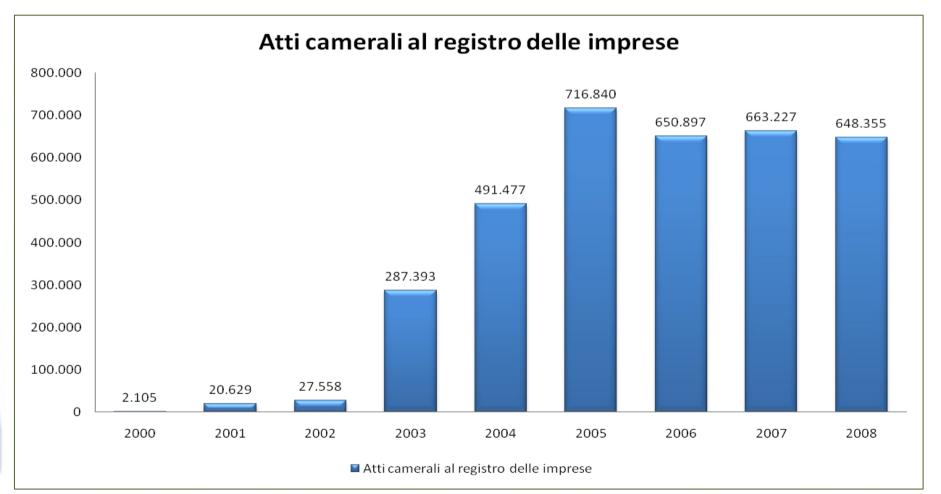


#### **Real Estate Register**





#### **Companies Register**





To date, Italian notaries keep their own paper deeds in their offices until they quit. The local Notarial Archives then keep them for a further 100 years. After this period, they are moved to the National State Archive

But archiving digital documents is not as simple as paper documents

# LTA FEATURES

A Long Term Archive Service (LTA) must:

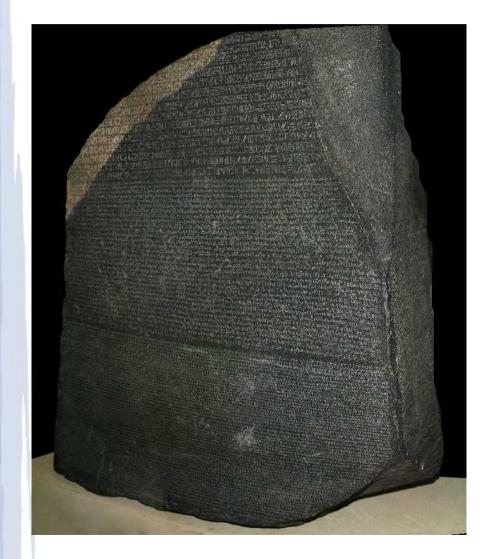
- assure the integrity of the stored documents and provide evidence that data has not been altered (i.e. the document retrieved is the same as when originally stored)
- maintain readability and availability of recorded documents
- preserve authenticity of the documents, if signed

#### HOW LONG A LTA MUST PRESERVE DOCUMENTS?

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We need to save all our digitals documents at least as long as the rights they grant are enforceable or for use as evidence in court

## PAPER vs. BITS



Electronic records do not have the same longevity properties as physical documents

As physical documents they can be harmed by fire,earthquakes, floods, that can destroy the media, but the N. 1 foe is <u>OBSOLESCENCE</u>

## MAIN ISSUES

Obsolescence can destroy your archive because:

- formats of digital documents are not unique and often not standard
- of short durability of data media and changing formats of data stored into data media (e.g. file systems)
- of weakening of used digital signature algorithms: certificate expiration, improvements in computing speeds

## **OUR LTA: AUTHENTICATION**

## SISTEMA DI CONSERVAZIONE A NORMA

Sistema di conservazione a norma

Avvisi: Conservazione a Norma: Piattaforma di Pre-Produzione

Nome Utente*	sabrina_chibbaro	
Chiave accesso*		
(*) Campi Obbligato	-	

# ALLOW ONLY OPEN FORMATS

	Consiglio Nazionale Del Notariato	SISTEMA DI CONSERVAZIONE
Menù	Invio Plico	
Conservazione:		
- Invio Plico	Caricamento del Plico	
Esibizione: - Invio Ricevuta - Ricerca Plichi Documentazione: - Manuale Utente	Aggiungere i File	Sfoglia Aggiungi Invia
	E	possibile caricare ancora 10/10 file.
Assistenza: - Contatta Supporto	Ogni file può essere di 50	00Kb. Dimensioni complessive del plico 0Kb/50000Kb.
	Sono ammessi solo i file appar	tenenti ai seguenti formati: txt, rtf, odt, pdf, xml, jpg, gif, tif, p7m
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Utente: sabrina_chibbaro	0	
Ruolo: Notaio		

## **RETRIEVE AND READ**

Cons Nazio <mark>del</mark> Nota	DNALE		SISTEMA DI CONSERVAZ	SISTEMA DI CONSERVAZIONE A NORMA		
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Dati della	ricerca					
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Plichi attu	almente in lavora	zione per la visualizzazion	e successiva			
Nessun Pli	со.					
Risultato d	ella ricerca					
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06/05/2008 18:54:42

702

CONSERVATO

06/05/2008 13:40:33

# OUR POLICY IN TEN ITEMS Our LTA:

- checks that the format of every uploaded file is one of those allowed
- generates a manifest (XML) that includes the list of every file in the folder, their hashes and metadata
- signs and timestamps every manifest
- sends a receipt with the manifest attached



- lets you perform a text-based search among your archived docs
- lets you read your archived docs even if you haven't got a proper reader
- if needed, releases copies of archived docs along with a notarial certification pertinent to the integrity and authenticity of the document
- periodically renews the time stamps

- runs checks every five years on the storing media and readability of formats
- if needed, periodically performs migration of the archived documents in newer storage media or in a newer format: in this case, original signed documents are saved to allow verification of signature in the future

## **THANKS FOR YOUR ATTENTION!**

#### **SABRINA CHIBBARO**

**Civil Law Notary in Milan** 

Member of IT Committee of Consiglio Nazionale del Notariato (Rome)
Member of the New Technologies Working Group at CNUE (Conference of the Notariats of the European Union – Brussels)

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