

# Preservation as a Service for Trust

InterPARES Trust

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# Role of the Archives

The **physical and moral defence** of documentary evidence of activity (Jenkinson)

Involves not only the object itself, but:

- **Naturalness** (produced as a by-product of activity)
- **Interrelatedness** (gain meaning from each other)
- **Impartiality** (free of external influence)
- **Authenticity** (uncorrupted)
- **Uniqueness** (derived from context)



# Archival Transition

From:

- a semi-passive, response paradigm

To:

- one of driving preservation, compliance and assurance

Requires:

- Proactively influence system design, technology acquisition and implementation
- **PRESERVATION BEGINS AT CREATION**

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# Further Complicated by 'the Cloud'

- Increasingly gov't, public trust organizations **shifting to Cloud**
- **Ownership, jurisdiction, privacy** key issues with internet-based record repositories
- Question of Trust –
  - In the **records,**
  - In the **process,** and,
  - In the **custodians**



# Trustworthy Trustees

- Based on:
  - **Reputation**, based on past actions
  - **Performance**, executing responsibilities
  - **Confidence**, ability for future action
  - **Competence**, expertise to complete task
- Requires knowledge of, experience with Trustees...

...But what if we don't know?

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# Trustworthy...Cloud Trustees?

- “The service offerings are **provided 'As Is.'** We and our affiliates and Licensors **make no representations or warranties of any kind**, whether express, implied, statutory or otherwise regarding the service offerings or the third party content, **including any warranty** that the service offerings or third party **content will be uninterrupted, error free or free of harmful components**, or that any content, including your content or the third party content, **will be secure or not otherwise lost or damaged.**”
- “We guarantee that **at least 99.9% of the time we will successfully process correctly formatted requests** that we receive to add, update, read and delete data”



# **‘PRESERVING’ RECORDS IN THE CLOUD**

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# Authenticity of a Digital Record

Preservation will **require repeated conversion and migration** -- trustworthiness cannot be established on the records themselves

Authenticity is an **inference that one draws** from the **data maintained** about the creation, handling and maintenance of the record

Done through **Metadata** (Identity/Integrity), **Chain** and **Process of Custody**

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Trust and Digital Records in an Increasingly Networked Society

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# Goal of InterPARES Trust (ITrust)

“To generate the theoretical and methodological framework that will **support the development** of integrated and consistent **networks of policies, procedures, regulations, standards and legislation** that can be applied to **digital records that are created, stored and accessed using the Internet.**”

[www.interparestrust.org](http://www.interparestrust.org)



# Preservation As a Service for Trust

...provide insight and **guidance to both those who entrust records to the Internet and those who provide Internet services** for the records. The project will address relevant requirements, insights and concerns developed in other ITrust projects to enrich and strengthen its models.

--InterPARES Trust, Control Domain, Study NA12

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# Six Preservation Services

- **Preservation Receive Service** -- complete and intact, and is in compliance with any agreements that are in force
- **Record Characterization Service** -- capture, report and make available those key attributes that characterize the records being transferred
- **Authenticity Assessment Service** -- capture and make available those authenticity attributes for comparison to other records



# Preservation Services (cont.)

- **Preservation Storage Service** -- capture, report and make available those attributes concerning the storage of the records
- **Preservation Transformation Service** -- capture, report and make available those attributes related to the migration, conversion or transformation
- **Preservation Dissemination Service** -- captures, reports and makes available attributes about access to and dissemination of preserved records, certified copies



# Service Construct

- Functional requirements
- Pre-conditions
- Main work flow
- Alternate flows
- UML Class Diagram
- Other supporting documentation



Flow Diagram

Specification

Class Diagram

# SNEAK PEAK

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# NEXT STEPS

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# Road to Standardization

- InterPARES joined Object Management Group
  - UML, SysML, MDA
- Government Domain Task Force
  - Initial approval to proceed
  - Submit for RFP
  - Review Responses
  - Submit for vote
- On to ISO JTC1 for final vote



# Conclusion

- Organizations increasingly turning to the Cloud Services
- Questions of Risk, Trust unanswered
  - Jurisdiction, control, management, privacy
- Focus on relationship between records creator and records 'preserver'
- Identify, capture and/or create metadata the supports authenticity



# Questions?

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