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The Audit and Certification of GPO's FDSys as a Trustworthy Digital Repository

Depository Library Conference

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our strategic vision in progress



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Why Audit?

- FDSys will be relied upon by Federal Agency Publishers, FDLP Libraries, and the public.
- Reliable = trustworthy
- What does it mean to be a trustworthy digital repository?
- How do we measure?
- Transparency and risk

our strategic vision in progress

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Development of TRAC

- 2003 RLG and NARA joint task force identified capabilities of trustworthy repositories
- CRL's Certification of Digital Archives project contributed to development of criteria
- 2007 CRL finalized the *Trustworthy Repositories Audit & Certification: Criteria and Checklist (TRAC)* and the related audit methodology and metrics
- In ISO standardization process

TRAC Criteria

- Checklist contains 84 criteria – 3 categories
 - Technologies Infrastructure and Security
 - Digital Object Management
 - Organizational Infrastructure
- Sample ranking criteria
 5. Compliant with all metrics fully and consistently.
 4. Compliant with all metrics with minor inconsistencies
 3. Compliant with all critical metrics with minor inconsistencies
 2. Compliant with all critical metrics, with a minimum of inconsistencies in areas that might lead to minor defects
 1. Compliant with all critical metrics, with a minimum of inconsistencies or deficiencies in areas that might lead to minor defects of a systemic nature.

Examples of TRAC Criteria

- A2.1. "Repository has identified and established the duties that it needs to perform and has appointed staff with adequate skills and experience to fulfill these duties."
- B1.2. Repository clearly specifies the information that needs to be associated with digital material at the time of its deposit (i.e., SIP).
- B5.4 Repository can demonstrate that referential integrity is maintained between all archived objects (i.e., AIPs) and associated descriptive information.
- C1.2 Repository ensures that it has adequate hardware and software support for backup functionality sufficient for the repository's services and for the data held, e.g., metadata associated with access controls, repository main content.
- C1.5 Repository has effective mechanisms to detect bit corruption or loss.
- C1.7 Repository has defined processes for storage media and/or hardware change (e.g., refreshing, migration).

Internal Audit Documentation

- FDsys documentation compared against TRAC:
- System architecture
- Content repository design
- Search engine configuration
- Data model design
- COA and COOP
- Inspector General IV & V reports
- Focus group reports and user community feedback
- Roles and responsibilities for PMO/LSCM staff
- Funding
- Successor agreement

Who has been audited?

- Portico, HathiTrust, MetaArchive completed audits. Chronopolis beginning
- Mix of CRL audits and private auditors
- GPO is 1st Federal government agency
- Audit process itself is maturing

Audit Process

- Gathering documentation and self assessment
- Procure trusted, experienced external auditor
- External audit is funding dependent
- External auditor engages library and technical experts to review GPO policies, financial support, system architecture, and on-site operations
- Audit report, including recommendations, are provided to GPO and published
- GPO evaluates recommendations and publishes a response

Understanding recommendations

- Audit is for repository improvement. Recommendations are supportive – help us find where we could be stronger
- Criteria are subjective – audit organizations use ranking criteria but still include interpretation, auditor’s perspective
- GPO will disposition recommendations and decide which ones to accept

Resources

- Trustworthy Repositories Audit & Certification: Criteria and Checklist (TRAC) http://www.crl.edu/sites/default/files/attachments/pages/trac_0.pdf
- CRL Certification and Assessment of Digital Repositories <http://www.crl.edu/archiving-preservation/digital-archives/certification-and-assessment-digital-repositories>