DAITSS - Transitioning to Web Services

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DAITSS
Dark Archive in the Sunshine State

- 59,700 packages
- 5,456,000 files
- 11 TB
What’s REST?

• REpresentational State Transfer
• A set of network architecture principles based on the web
• An alternative to RPC - e.g. SOAP - which has turned out to be very brittle
REST Architecture

- Application states are divided up into resources
- Every resource has a universal syntax for naming
- A small set of well defined operations
- A small set of content-types
REST

• Resources are represented by URLs
• Operations are GET, PUT, DELETE and POST
• Returned content types, such as XML, can and should include links to other Resources
Storage Service

http://tarchive.fcla.edu/silo008

• PUT  - send a package
• GET   - retrieve a package
• DELETE - deletes a package
• HEAD  - metadata for a package
DAITSS

Ingest as the sequential application of web services

Ingestor

per file

retrieve file

identify

find transformation servers

transform to new format

store files update AIP

Submission Store Service

Identification, Validation, Characterization Service

Action Plan Service

Format Transformation Service

Storage Service
Description Service

Ingestor

Submission Store Service

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Format Transformation Service

Storage Service
Description Service

Send the file (or its location) to be described

Receive a PREMIS XML Document listing:

- PRONOM format identifiers
- Metadata - AES, MIX, textMD, etc
- Agent Information
- Event Outcome
Description Services

behind the scenes...

• JHOVE I & II
• Ghostscript
• FFMpeg Libraries
• Libquicktime suite
Action Plan Service

Ingestor

- Submission Store Service
- Identification, Validation, Characterization Service
- Action Plan Service
- Format Transformation Service
- Storage Service
Action Plan Service

Send the description PREMIS document

Receive an XML file with Links:

- Links are URLs for transformation services
- Normalization service
- Migration service
- Hypertext as the engine of application state
Transformation Service

Ingestor

transform to new format

Submission Store Service

Identification, Validation, Characterization Service

Action Plan Service

Format Transformation Service

Storage Service
Transformation Service

Request: Send the file
Response: the file (or a link) to the new object

• Many-to-many? Use multipart messages
• Agent, Event outcome
Ingest as the sequential application of web services
Future

• Open our running services for external use
• Encourage mix and match services
• Create new services, e.g. Risk Assessment
Thanks

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http://fcla.edu/digitalArchive/

http://daitss.fcla.edu/