Digital Preservation Progress at the Cornell University Library

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CUL's History in Digital Preservation

- Earliest efforts ca 1988
- Early Digitization Efforts aimed at preserving access to print (e.g. Making of America)
- RLG DigiNews — Produced by the Preservation Department on behalf of RLG since 1997, this bi-monthly newsletter focuses on digital imaging and preservation issues that pertain to educational and cultural institutions. Anne R. Kenney and Nancy Y. McGovern are the co-editors.
- Anne R. Kenney and Oya Y. Rieger, Moving Theory into Practice: Digital Imaging for Libraries and Archives. Mountain View, CA: Research Libraries Group, Inc., 2000.
- Risk Management of Digital Information: A File Format Investigation by *Gregory W. Lawrence, William R. Kehoe, Oya Y. Rieger, William H. Walters, and Anne R. Kenney*. Washington, DC: CLIR, June 2000.
- Anne R. Kenney and Oya Y. Rieger, chairs, Establishing a Central Depository for Preserving Digital Image Collections - Part I: Responsibilities of Transferee, report of the Digital Preservation Policy Working Group, March 2001.
- Establishment of a Digital Preservation Officer, Aug. 2001
- Digitization now fully integrated with preservation efforts of Kroch Rare and Manuscript Collection (e.g. Samuel J. May Antislavery collection)

CUL's History in Digital Preservation, cont'd

- Moving Theory into Practice: Digital Imaging Tutorial

- Cornell's Digital Preservation Management Workshops and Tutorials, ongoing since 2003 http://www.library.cornell.edu/iris/tutorial/dpm/index.html

- Participation in numerous working groups and organizations

- Recipient of numerous grants for preservation activities

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CUL Strategic Goal

In collaboration with CIT and external partners, establish within three years a fully functioning, administratively supported, and sustainable Open Archival Information System (OAIS) for managing, preserving, and providing ongoing access to Cornell University's digital assets over time, extending beyond the library to encompass university records of continuing value. This system must meet or exceed certification requirements currently being defined by an OAIS working group.

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Team Charge

Develop an organizational context for the OAIS that will:

- Foster collaboration both within the university and beyond
- Seek to secure institutional commitment to this process that reaches the highest administrative levels of the university
- Work with national and international OAIS initiatives at other institutions whenever appropriate to define common goals and ensure system compatibility
- Develop, refine, and implement a three year plan to meet the above goals

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Plan

- *Year 1*: Design and Plan the OAIS
- *Year 2*: Begin to Build the OAIS
- *Year 3*: Complete and populate the OAIS
- Years 4 and Beyond: sustain the system

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Progress—end of 2nd qtr

- Digital Preservation Policy Framework
- OAIS requirements review
  - CUL requirements
- Draft Selection Policy and procedures
- “Elevator Pitch”
- Gap analyses, in progress

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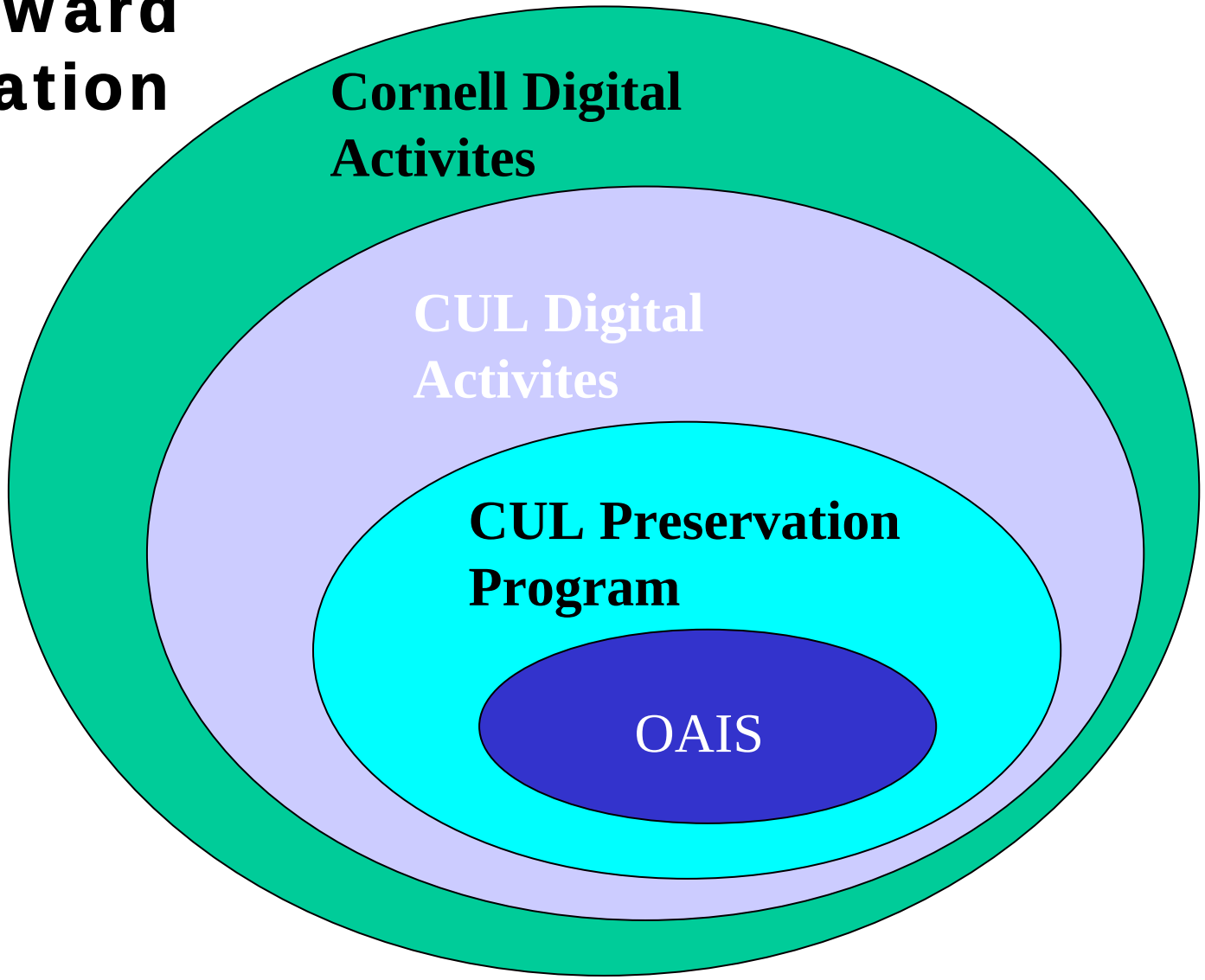
Steps toward Preservation



Math Arc

Ensuring Access to Mathematics Over Time:

– Cooperative Management of Distributed Digital Archives

– Funded by NSF and DFG

Math Arc

- develop an archive of serial mathematics literature that will be available to libraries worldwide and at the same time serve as a model for similar efforts in other disciplines within the library and publishing communities.

Math Arc
Progress to Date

- Stories – a page from Extreme Programming
- Message passing
- Metadata
- Journals, permissions, and ingest formats
- Agreements, principles, scenarios
- Asset Files, Registry

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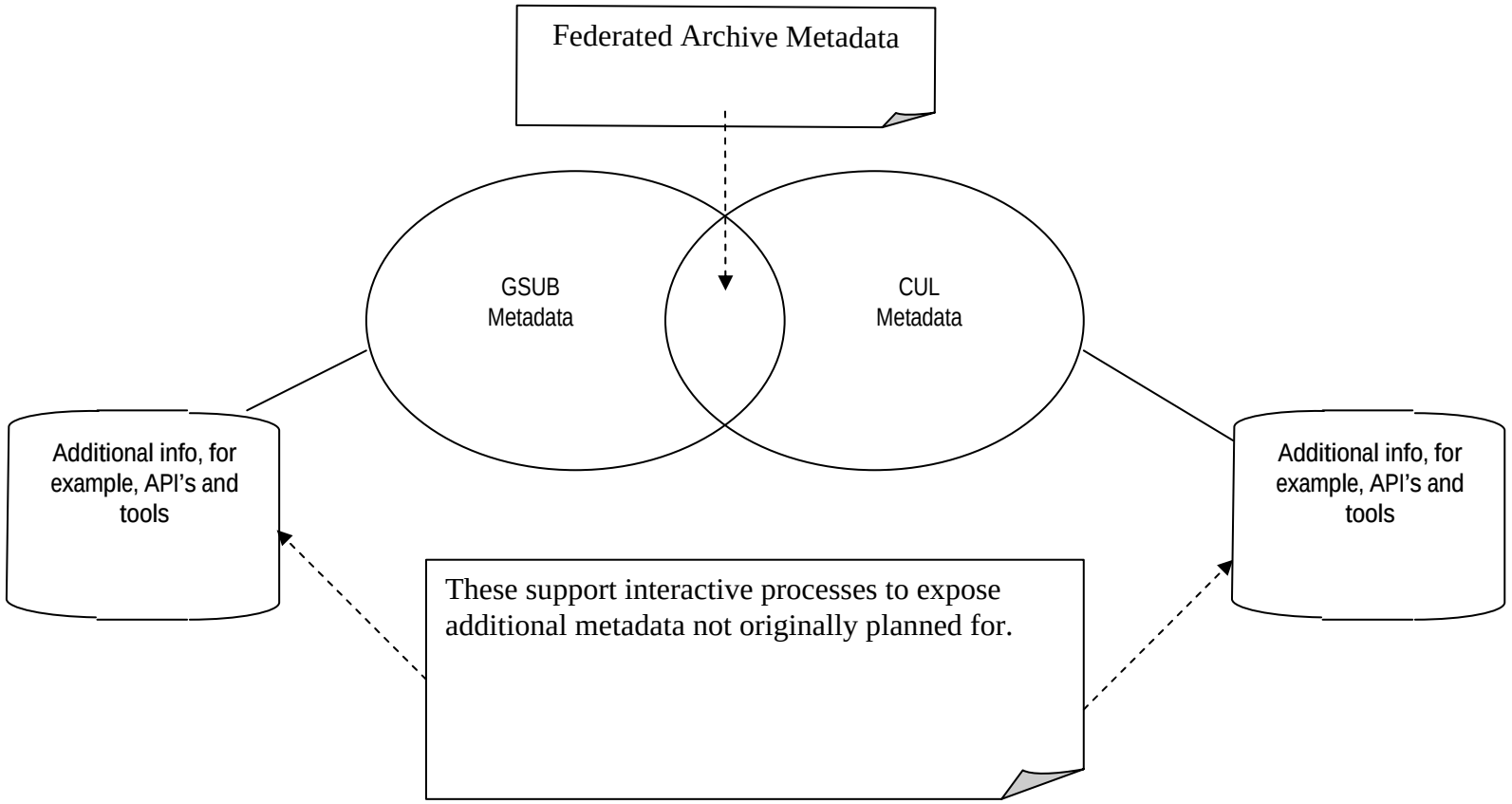
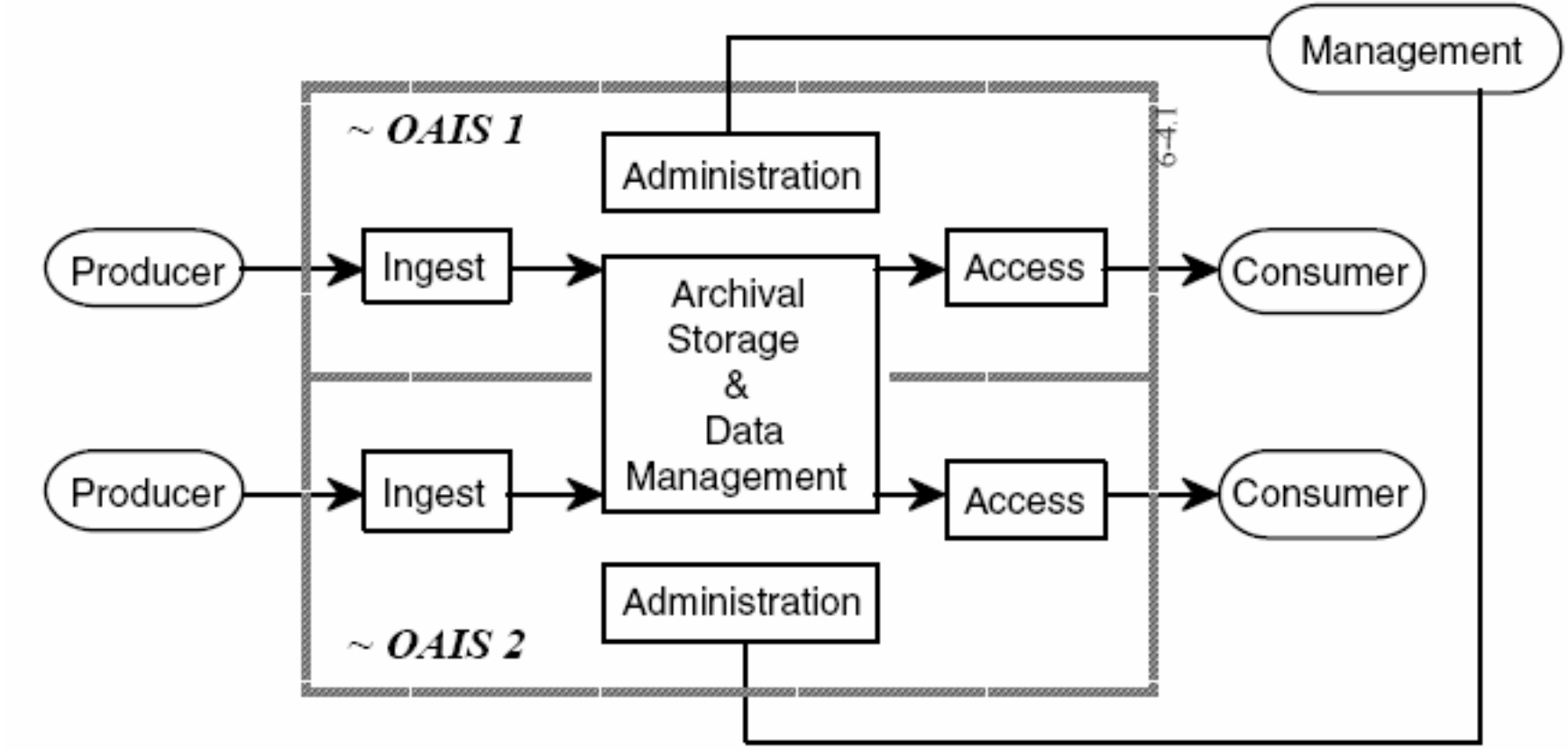


Frank Klaproth's conceptual diagram



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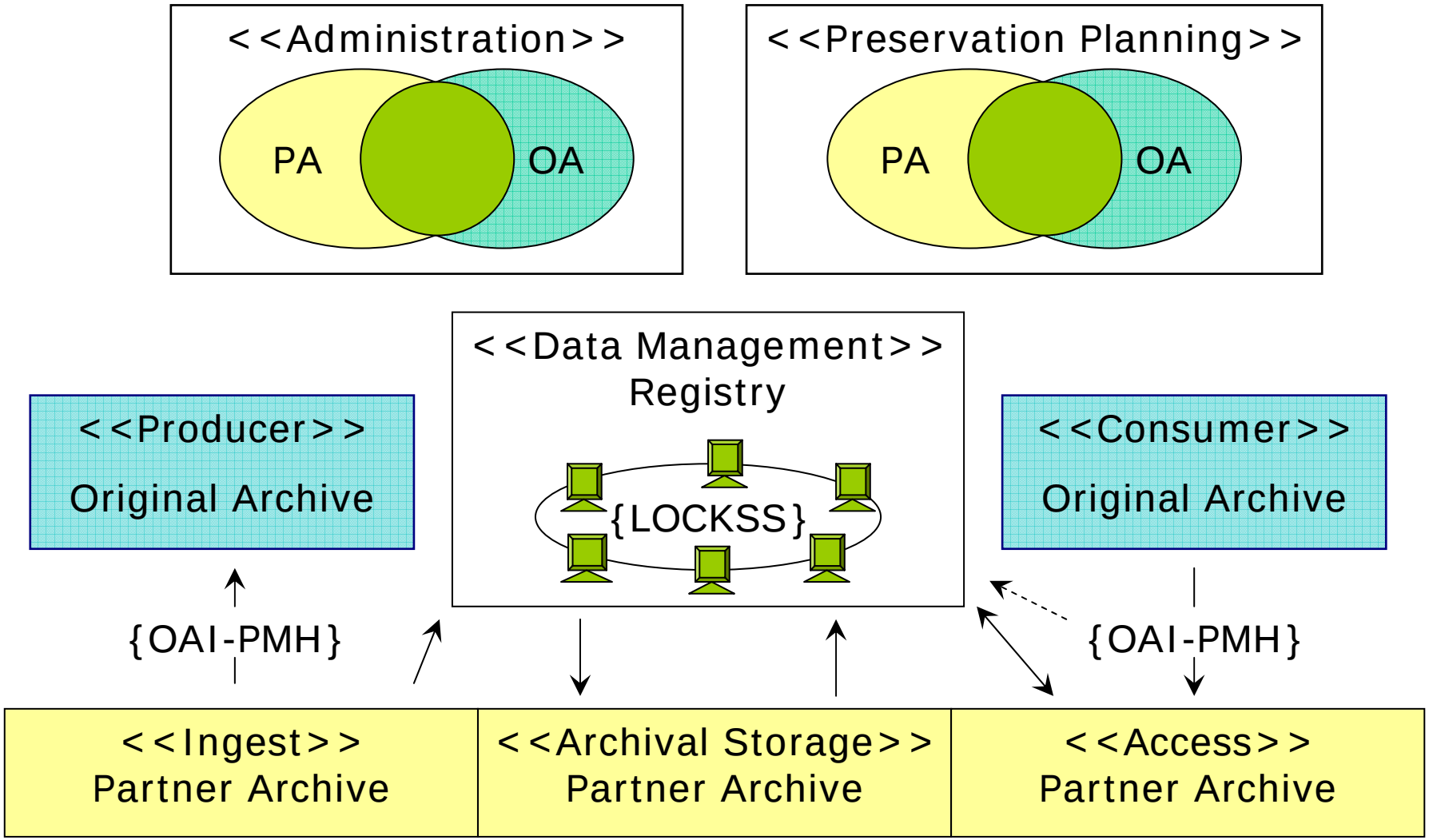

Three Stories

1. Develop Packaging Designs and Migration Plans
2. Establish Standards and Policies
3. Develop Preservation Strategies and Standards
4. Administer Database
5. Co-ordinate Access Activities
6. Generate DIP

1. Receive Data
2. Co-ordinate Updates
3. Error Checking
4. Manage Storage Hierarchy

1. Receive Submission
2. Generate AIP
3. Quality Assurance
4. Archival Information Update
5. Audit Submission

Scenarios

- A new asset is added to one partner's site
- An Asset is migrated in the original archive (result is a new asset)
- An Asset is deleted intentionally in the original archive
- Update metadata for an asset in the original archive
- Update metadata for one or more content files in an asset in the original archive
- A partner drops out
- A new partner joins

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Scenarios, continued

- Disseminating content or assets
- Checking for inconsistencies on partner sites
- Checking for inconsistencies on own site
- Repairing inconsistencies
- New migration process becomes available
- Preservation plan/policy at any site is updated
- Request for resources cannot be met (temporarily or permanently)
- Rights or permissions change on any side

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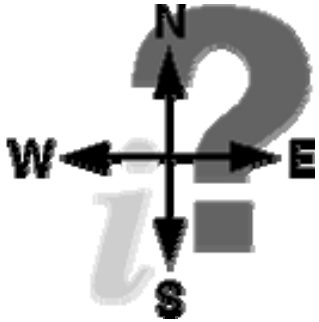
Questions



Thanks to Bill Kehoe

http://www.library.cornell.edu/dlit/MathArc

http://commondep.library.cornell.edu

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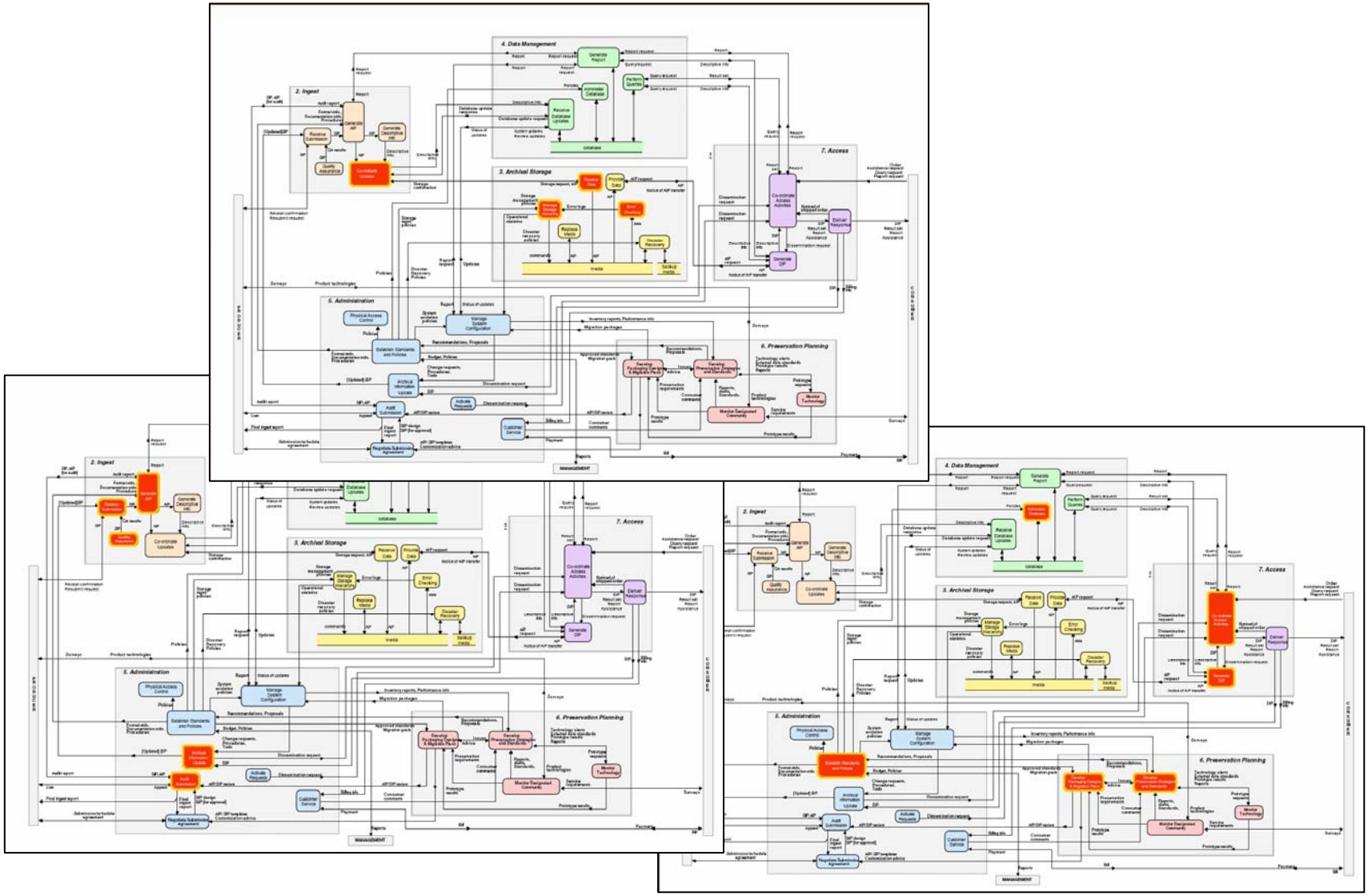
Three “Stories”



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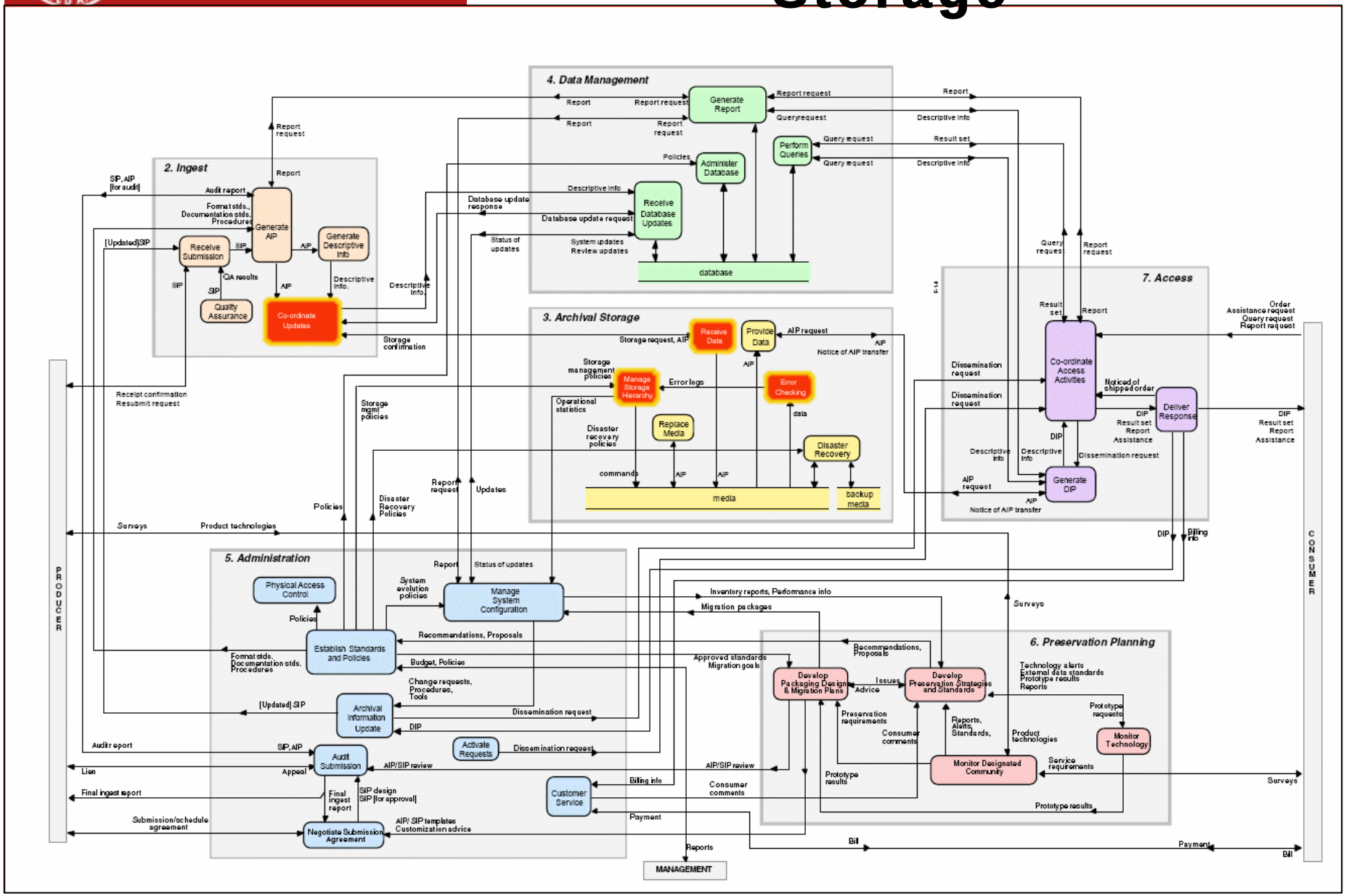
Story 2 – "Update Storage"



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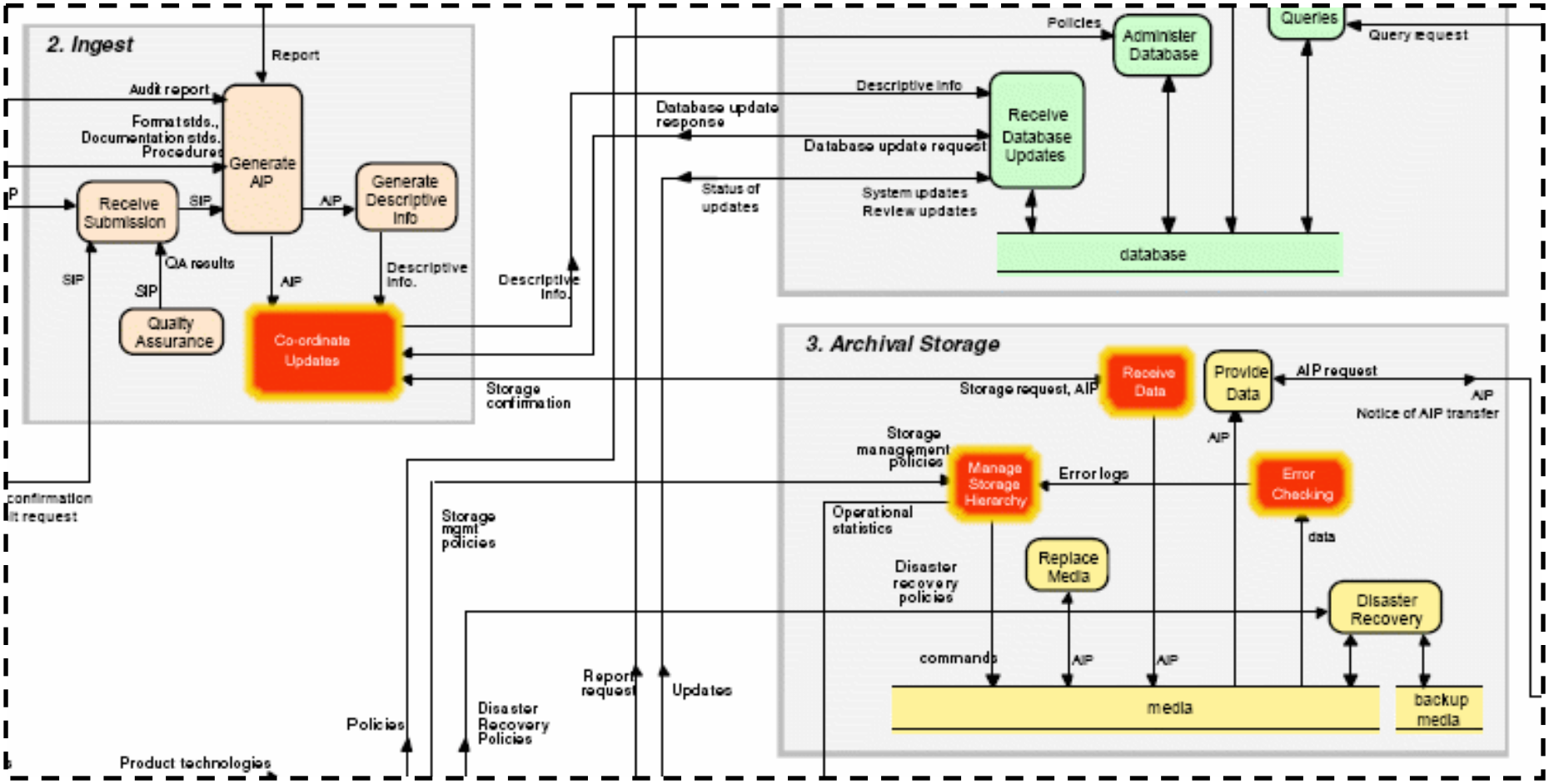
Story 2 – "Update Storage" (detail)



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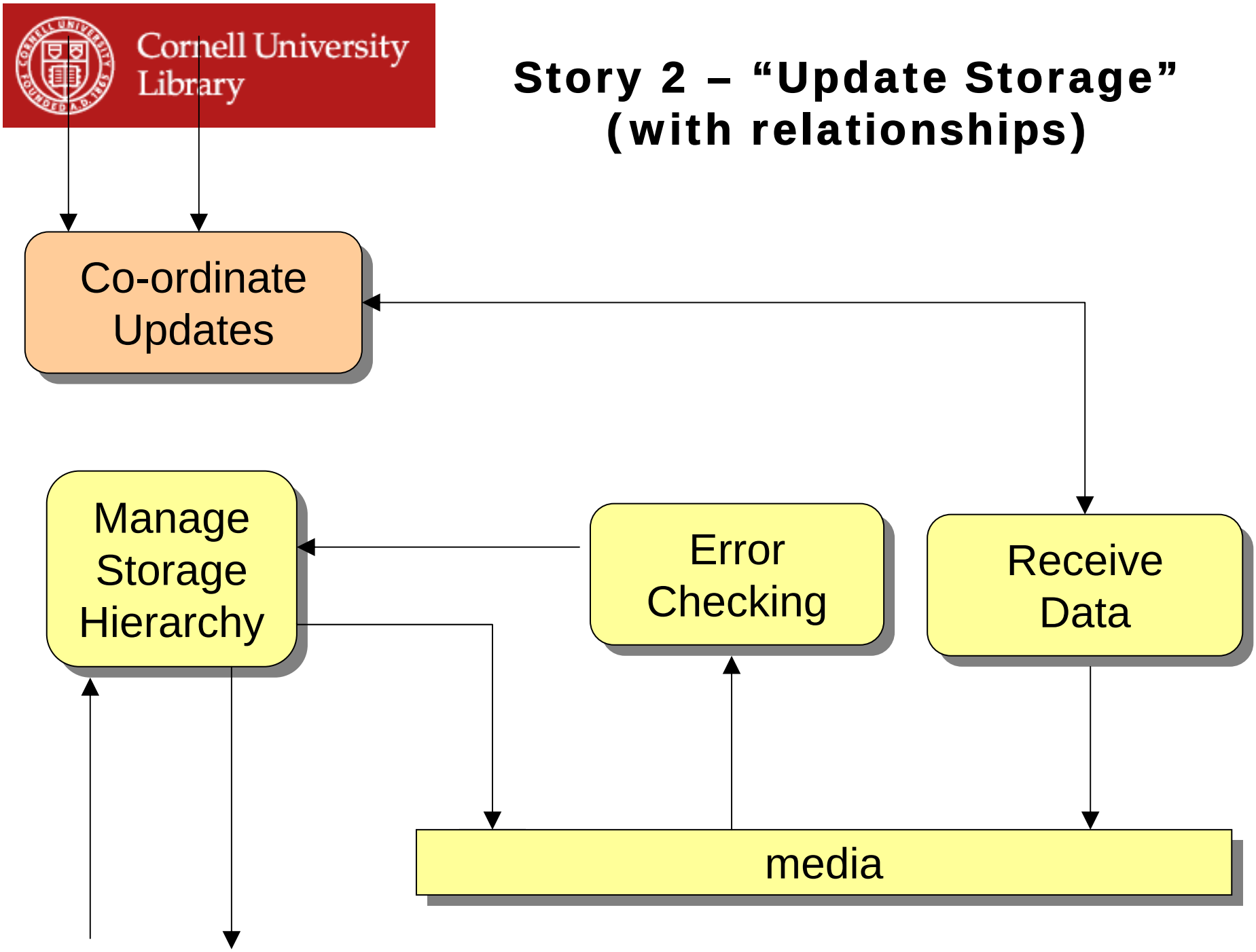
Story 2 – "Update Storage" (with relationships)



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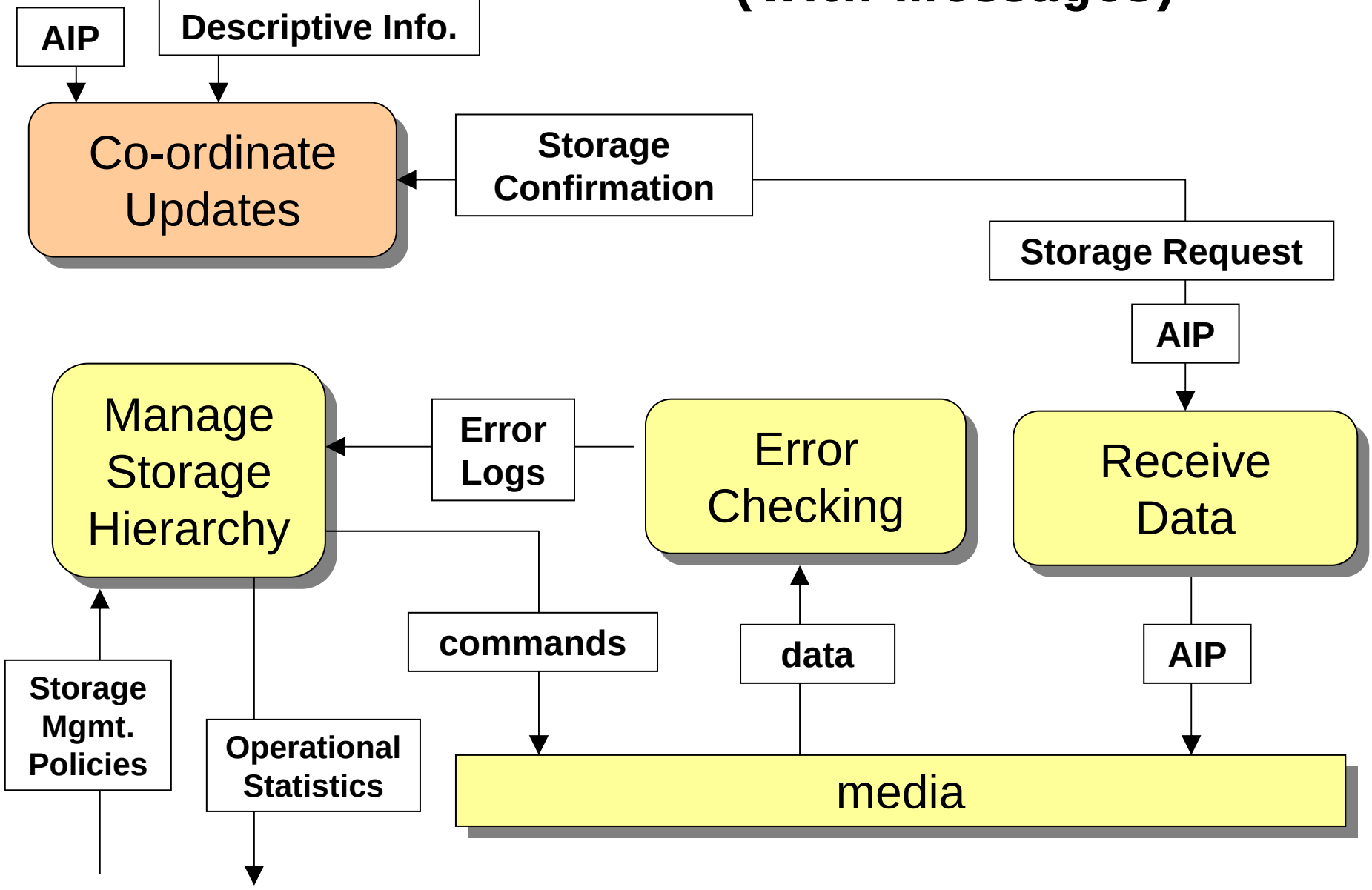
Story 2 – "Update Storage" (with messages)



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Story 2 – "Update Storage" (with categorized messages)