



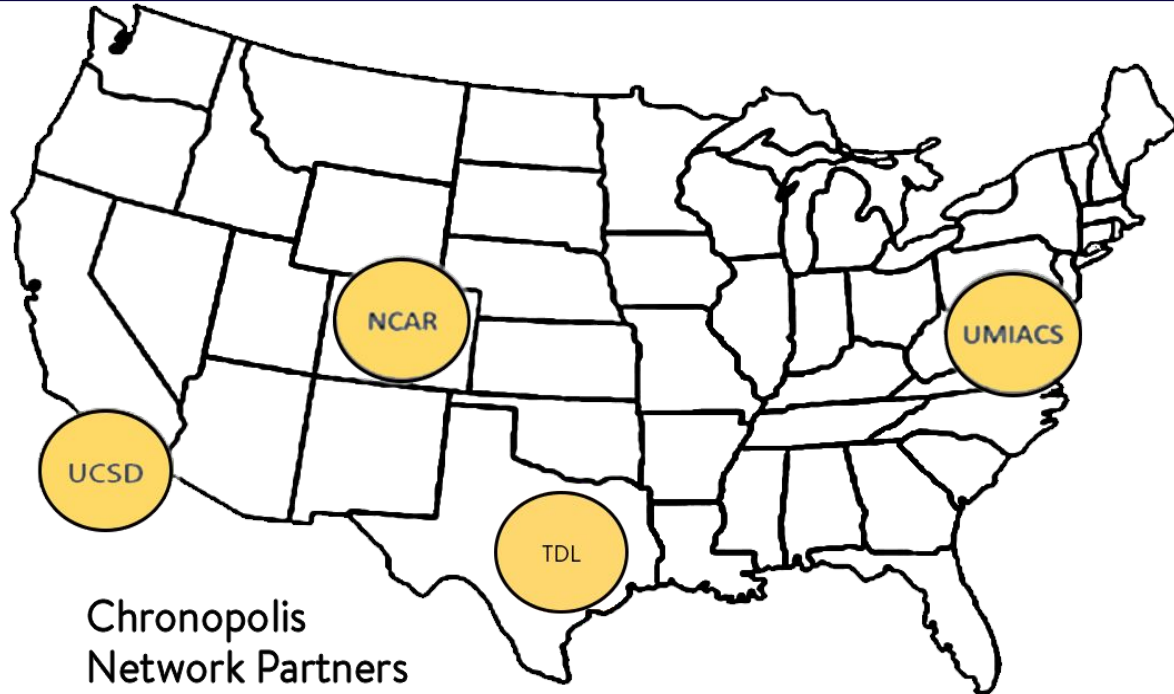
# CHRONOPOLIS

Sibyl Schaefer // @archivelle  
University of California, San Diego

# OUR NETWORK

Dark digital preservation storage network spanning multiple institutions and geographic regions.

- University of California, San Diego (UCSD)
- National Center for Atmospheric Research (NCAR)
- University of Maryland Institute for Advanced Computer Studies (UMIACS)
- Texas Digital Library (TDL)



# BACKGROUND

- Collaboration started in early 2000's. Initially funded by Library of Congress NDIPP grants in mid-2000's. Officially launched in 2008.
- Three software migrations:
  - SRB -> iRods -> ChronCore
- Initial partners have changed over time.
- TRAC audit received in 2012.

# CORE PRINCIPLES

- Dark archive
- Data is managed independently at three different sites; no one person can access data at all of the sites.
- A minimum of three copies must be stored in the network.
- Data will be returned to depositor in exactly the same form as provided.
- Except for sensitive data (PII/HIPAA), there are no constraints on what type of data can be deposited.

# PARTNERS

NEW



Texas Digital Library

NEW



GEORG-AUGUST-UNIVERSITÄT  
GÖTTINGEN



# PEOPLE

## UCSD

**Program Manager:**

Sibyl Schaefer

**Research Data Curation**

**Program Manager:** David Minor

**Systems Administrator:**

Ron Stanonik

**Operations Manager:**

Tim Marconi

**Head of IT:** Declan Fleming

**University Librarian/ PI:**

Tammy Dearie

## NCAR

**PI:** Eric Nienhouse

**System Administrator:**

Brian Bonnland

**Dashboard Developer:**

Nathan Hook

## UMIACS

**Software Developer:** Mike Ritter

**Professor/ PI:**

Joseph Jaja

## TDL

**Executive Director:** Kristi Park

**Services Manager:**

Courtney Mumma

**Software Engineer:**

Nick Woodward

**Senior Systems Administrator:**

Clark Kim

# NUMBERS

	Number of Depositors	Number of TBs	Number of Files
Chronopolis	11	~ 45.22 TB	~1,863,901
DPN @ UCSD	22	35.95 TB	2,867,230

# SUSTAINABILITY

1. Application
2. Staffing
3. Partner Nodes



# DATA PROVIDERS



- Uses DuraCloud interface to deposit materials into Chronopolis
- Named DuraCloud Chronopolis



Chronopolis +  
DuraCloud +  
DPN =

DuraCloud Vault



UC San Diego

- UCSD Library
- UCSD Researchers

# RECENT ACTIVITIES

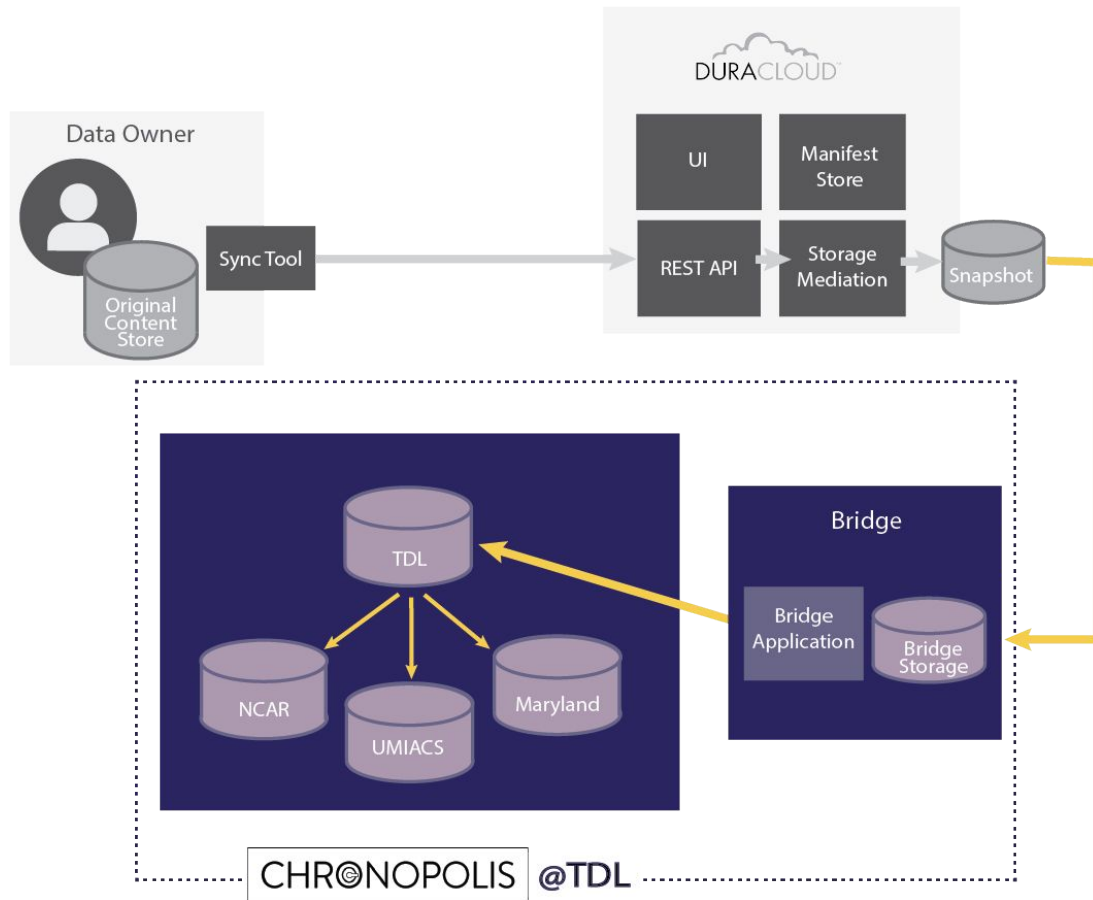
- DuraCloud Chronopolis service
- University of Goettingen partnership
- TDL partnership official
- Repair development
- NCAR dashboard development
- Lowered price points for Chronopolis
- Multiple ingest node development

# SERVICES ADVISORY BOARD

- Review proposed policies and specifications and provide feedback specifically with regards to:
  - Common requests from depositors
  - ISO 16363 compliance

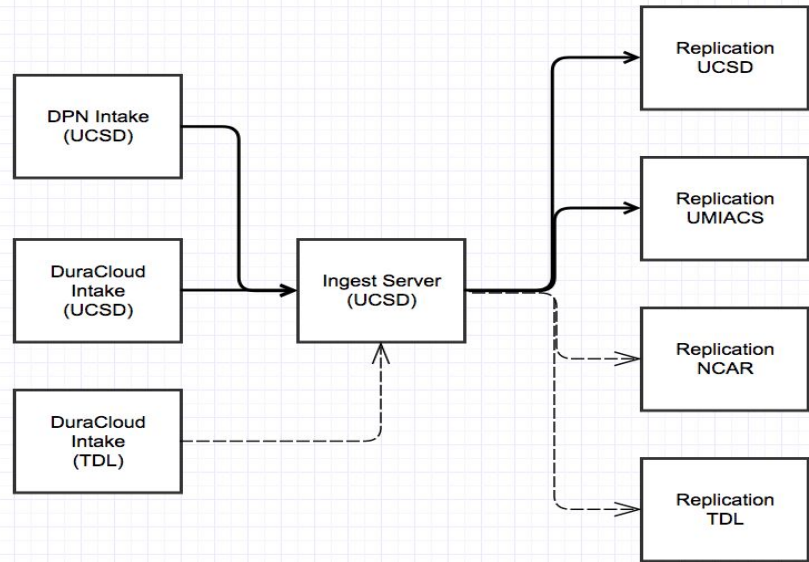
# SOFTWARE OVERVIEW

- **ChronCore** - ingests, tracks, and replicates data throughout the system.
- **ACE** - provides ongoing fixity checking.
- **Dashboard** - provides an overview of Chron collections at each node.
- **DuraCloud** - used to provide a user interface between Chronopolis and depositors.
- The **Bridge** connects DuraCloud and ChronCore.



# CHRONCORE

- Intake
- Ingest
- Replication



# ACE: Audit Control Environment

- Provides fixity checking at each node
- Audits checksums (SHA-256) as well as token values
- Run at each Chronopolis node

# THANK YOU!

Sibyl Schaefer

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<http://libraries.ucsd.edu/chronopolis/>