



Submitted by Robert Casey

for

NSF Cyberinfrastructure Workshop

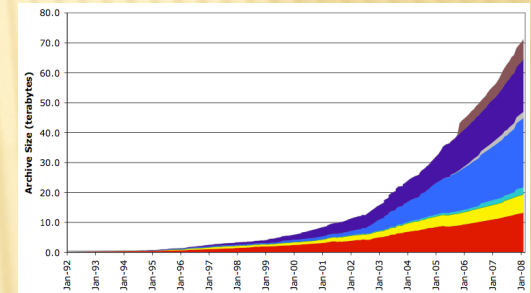
IRIS DATA MANAGEMENT CENTER

SCIENCE OVERVIEW

DMC Core Mission: Archive and Provide Seismic Waveform Data

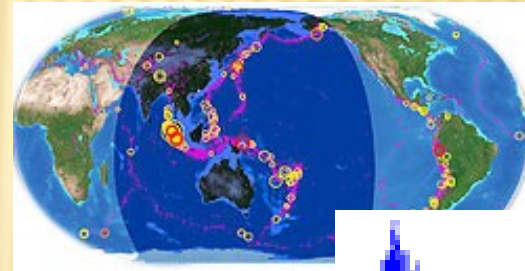
Statistics for 2007:

- 458,000 requests for data serviced
- Total of 26 Terabytes outbound data
- Archive holds over 70 Terabytes of waveforms at +15 TB/yr.



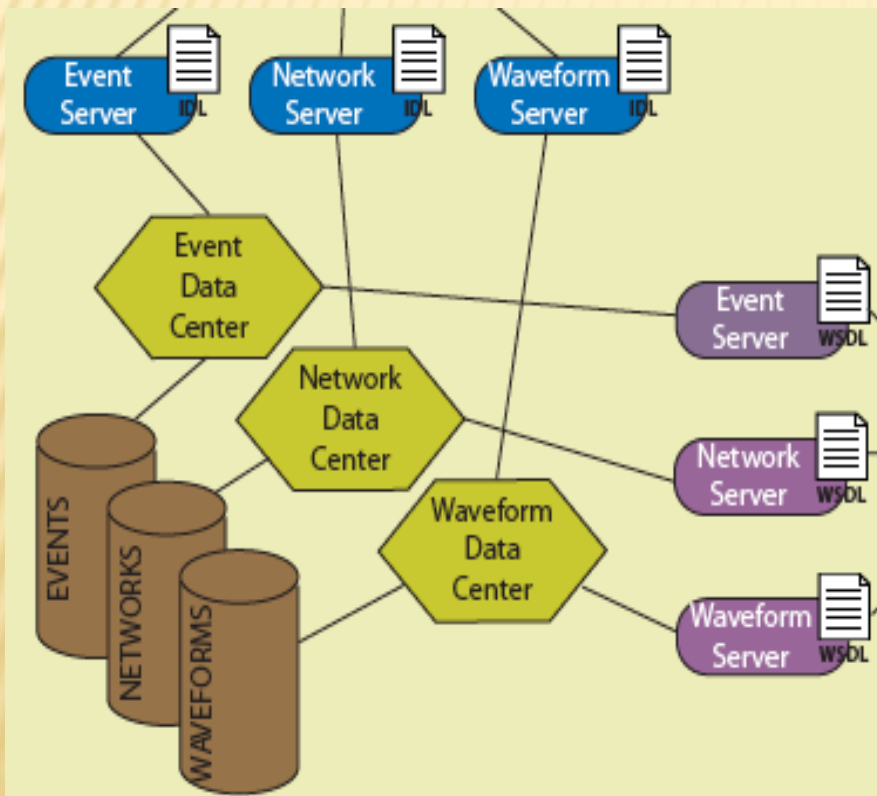
Core Services:

- Custom request via email
- Data access through CORBA
- Discovery and access through web tools
- Earthquake and sensing station catalogs
- Real time data streaming

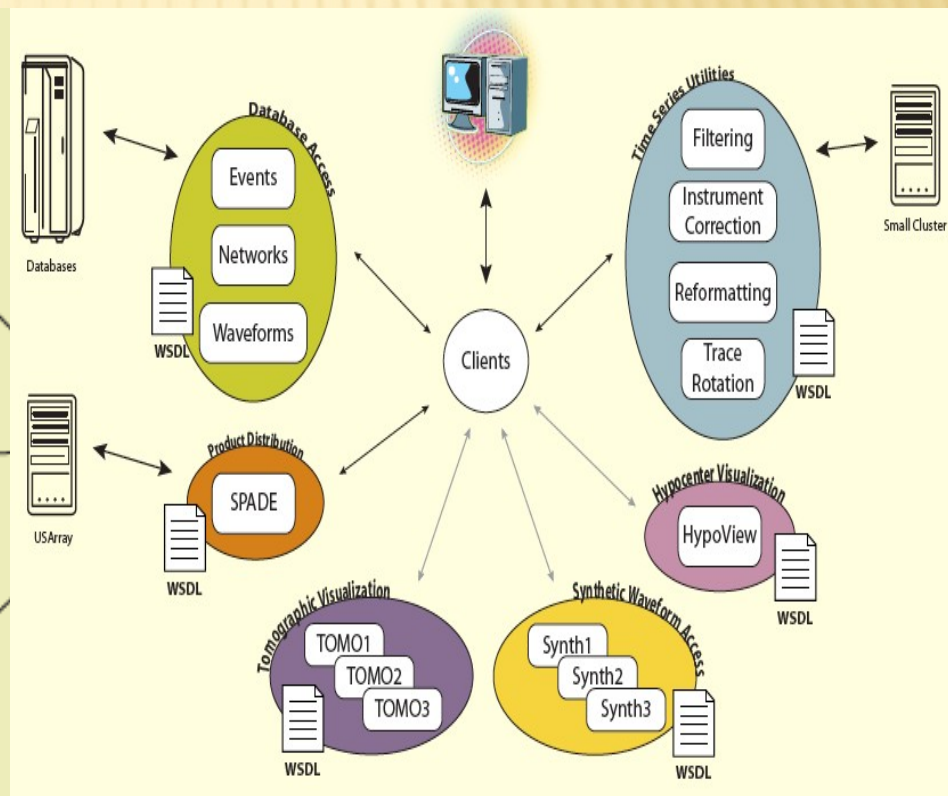


CI ARCHITECTURE

✘ Current Architecture



✘ Planned Architecture



CI BARRIERS/CHALLENGES

- ✘ Initial investment to design and develop infrastructure
- ✘ Selecting frameworks, schemas, and technologies for implementation
- ✘ Coordination, agreement, and governance among collaborative groups
- ✘ Common access patterns and interoperability among heterogeneous datasets
- ✘ Discoverability to a diverse user base
- ✘ Usability and making it useful