

OpenDLib Digital Library Management System

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Digital Library
Management System
OpenDLib



ISTITUTO DI SCIENZA E TECNOLOGIE
DELL'INFORMAZIONE "A. FAEDO"

➤ Definition

➤ Capabilities

- ⊕ Developer perspective
 - Application Framework
- ⊕ DL System Admin perspective
 - Example
- ⊕ Librarian and End-user perspective
 - Demos

Definition

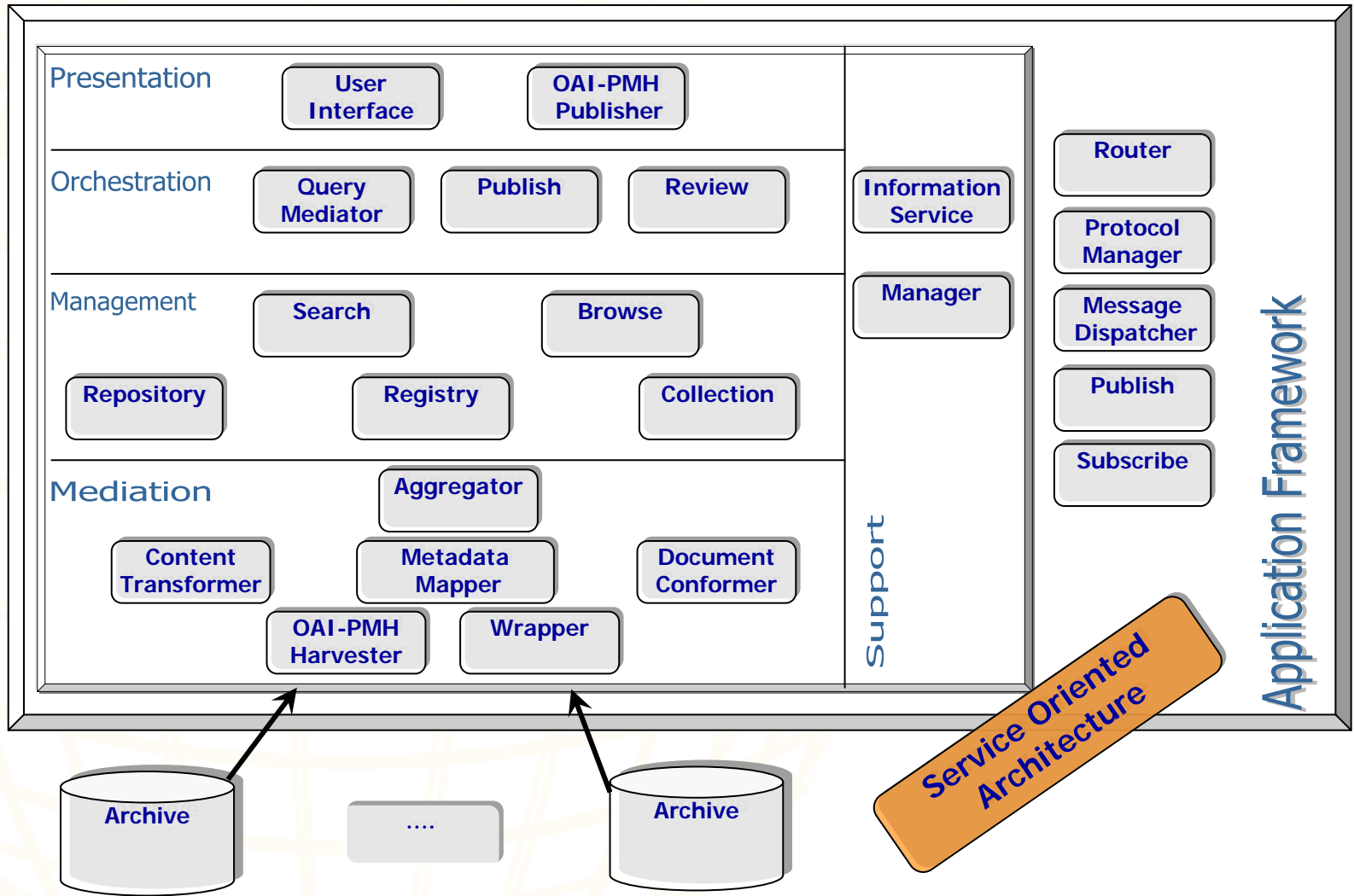
OpenDLib is a **software toolkit** that can be used to create a digital library easily, according to the requirements of a given user community, by instantiating the software appropriately and then either loading or harvesting the content to be managed.

Wide variety of document types

- ⊕ different format, media, and structure
- ⊕ multiple editions, versions, and manifestations
- ⊕ more metadata records in different formats

Capabilities

Digital Library
Management System
OpenLib



Service Oriented Architecture

Capabilities: developer perspective

The protocol is completely hidden to the services.

- ✦ All the services use the Protocol Manager to send their requests.
 - The Protocol Manager prepares the message
 - The Router identifies the appropriate service to contact
 - The Message Dispatcher passes a request to the appropriate service instance
- ✦ All services use the Subscribe to have always updated information

Router

Protocol
Manager

Message
Dispatcher

Publish

Subscribe

Capabilities: DL system admin perspective

The DL System Administrator creates and maintains a DL

- ✦ selecting the appropriate services,
- ✦ assigning services to hosting nodes,
- ✦ configuring each service,
- ✦ preparing the hosting nodes with the appropriate application framework,
- ✦ monitoring the resulting DL

Manager

Information
Service

Configuration aspects:

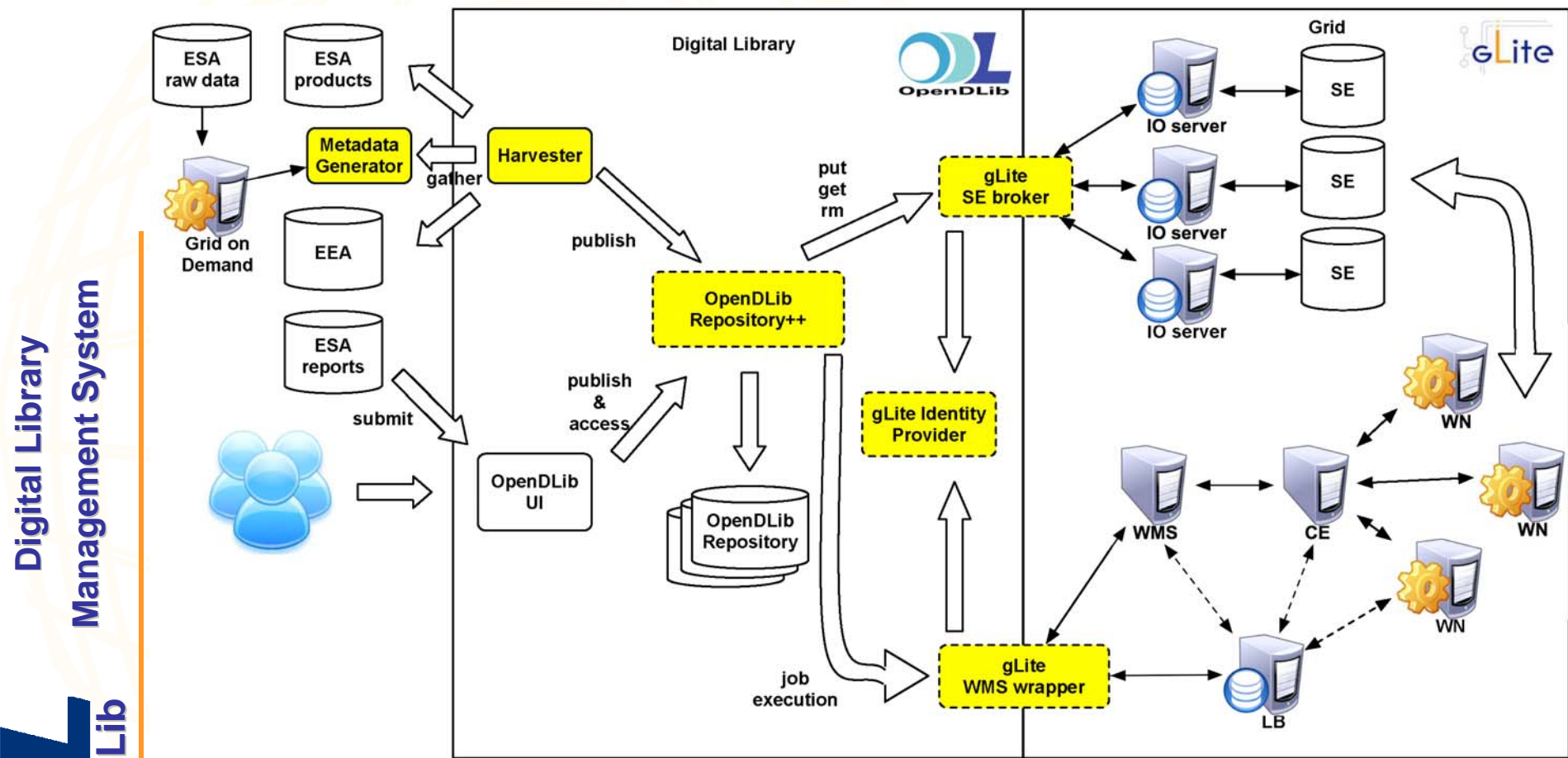
- ✦ Metadata formats (+mappings)
- ✦ Manifestation formats (+transformations)
- ✦ External Manifestation types
- ✦ Document Formats (DoMDL)
- ✦ Archiving, Compression, Encryption
- ✦ Query Language (operators, attributes)
- ✦ Access Rights

Manager

Information
Service

Capabilities: DL system admin perspective

[cont.]



Digital Library
Management System



Accessible at <http://diligent-dl1.isti.cnr.it>

Capabilities: DL system admin perspective

[cont.]

GOMOS 2p file

Product name	GOM_NL_2PPACR20030228_012134_000000402014_00146_05210_0001.N1
Sensing Start	28-FEB-2003 01:21:34.635230
Sensing Stop	28-FEB-2003 01:22:14.631843
Ref Doc	PO-RS-MDA-GS2009_10_3I

Coordinates
 Position_X +4779434.623<m> Position_Y -5286150.813<m> Position_Z +0738625.381<m>
 Velocity_X -1728.886664<m/s> Velocity_Y -0525.406458<m/s> Velocity_Z +7336.659235<m/s>

File List:

- Metadata
- Nitrate Ion (NO2)
- NO2 animated graphic
- NO2 Image PNG manifestation
- NO2 postscript manifestation
- NO2 GEO data
- NO2 data
- Nitrate Ion (NO3)
- Ozone (O3)

NO3 Connecting Submitting Running Done
 O3 Connecting Submitting Running Done

Altitude [km] vs. NO2 density [cm⁻³]

Altitude [km] vs. NO3 density [cm⁻³]

DoMDL has been customized to support manifestation types that can be generated on demand using a registered workflow

Capabilities: Librarian and End-user perspective

Librarians and End-users access the DL using customizable user interfaces.

Librarian:

- ✦ Manages the DL assigning rights, approves requests, and monitors its status

End-user:

- ✦ Author requests for the publication of his work
- ✦ Reviewer judges the submitted document
- ✦ Generic user searches, browses, and accesses document; personalizes the information space; shares private documents with his own defined group of users

Capabilities: Librarian and End-user perspective [cont.]

➤ Diligent Training

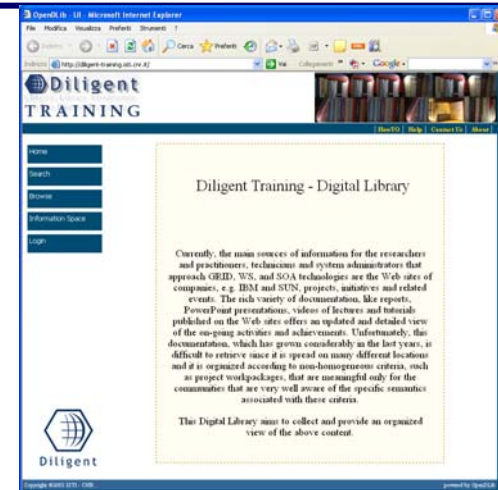
- ✦ Textual documents harvested by different projects and initiatives (Diligent, EGEE, Condor, IBM, Globus, Oasis, ...)

- ✦ Course generation

➤ Environmental DL

- ✦ Textual documents, satellite products, raw data, reports

- ✦ Report generation

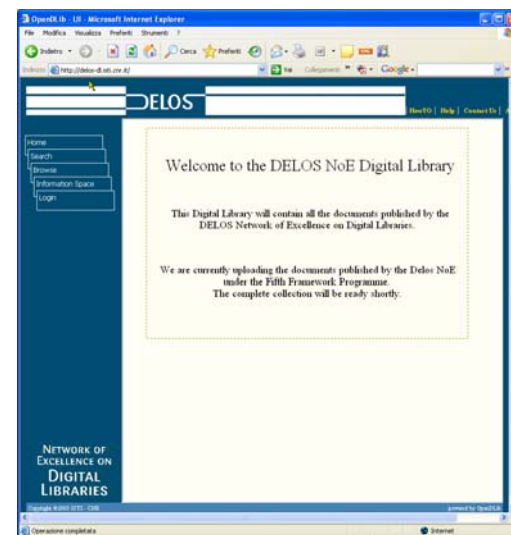
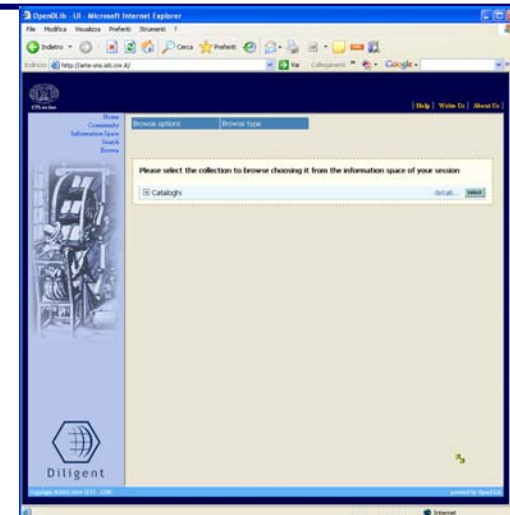


➤ ARTE DL

- ⊕ Textual documents and images harvested by different projects and initiatives
- ⊕ Multiple metadata formats

➤ Experimental DELOS DL

- ⊕ Deliverables, proceedings, articles, presentations, and videos
- ⊕ Content management back end of DELOS web site



Capabilities: Librarian and End-user perspective [cont.]

➤ ESE DL

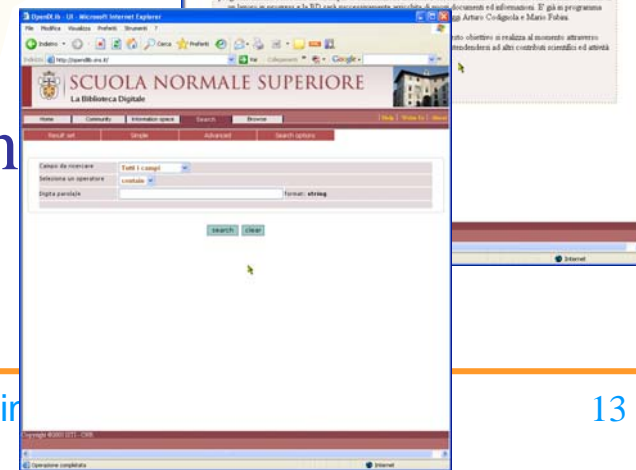
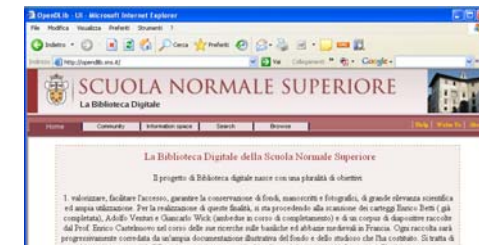
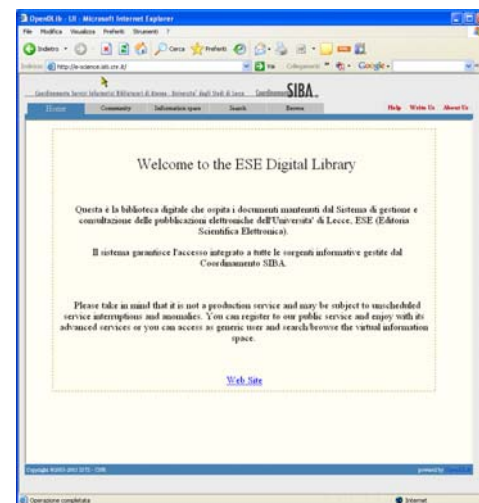
- ⊕ Textual documents, proceedings, articles, monographs, CDs, DVDs

- ⊕ Editorial Management

➤ Scuola Normale Superiore

- ⊕ Ancient correspondences, slides, volumes, thesis

- ⊕ Access rights and preservation



Capabilities: Librarian and End-user perspective [cont.]

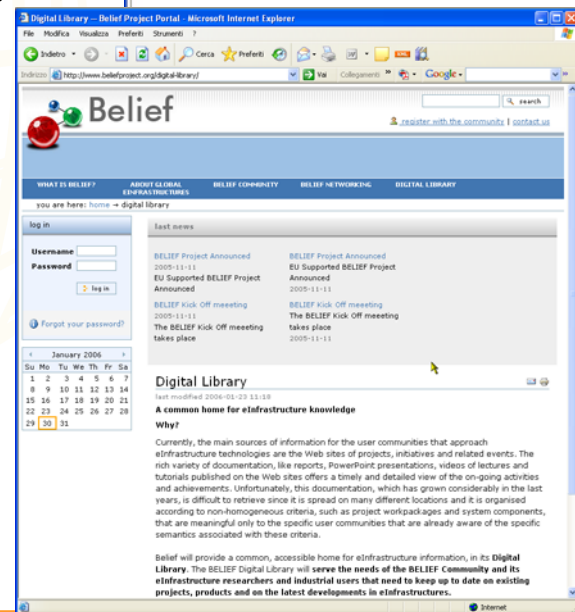
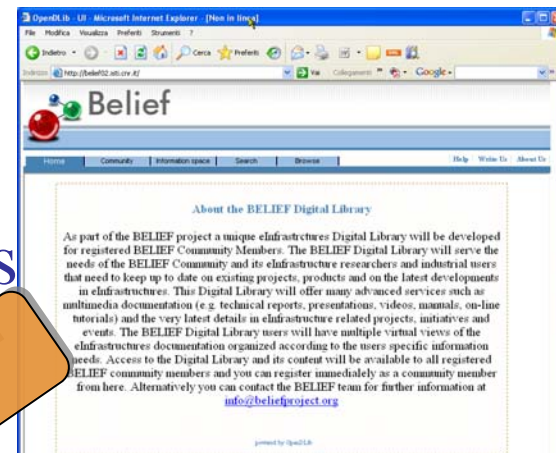
eInfrastructures DL

- Technical reports, presentations, videos, manuals, on-line tutorials
- User Profile driven

Coming soon

BELIEF Bringing Europe's eElectronic Infrastructures to Expanding Frontiers

<http://www.beliefproject.org/>



Links

- Diligent Training
 - ✦ diligent-training.isti.cnr.it
- Environmental DL
 - ✦ diligent-dl1.isti.cnr.it
- ARTE DL
 - ✦ arte-sns.isti.cnr.it
- Experimental Delos DL
 - ✦ delos-dl.isti.cnr.it
- eInfrastructures DL
 - ✦ belief02.isti.cnr.it (!)
- ESE DL
 - ✦ e-science.isti.cnr.it (!)
- Scuola Normale Superiore di Pisa
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