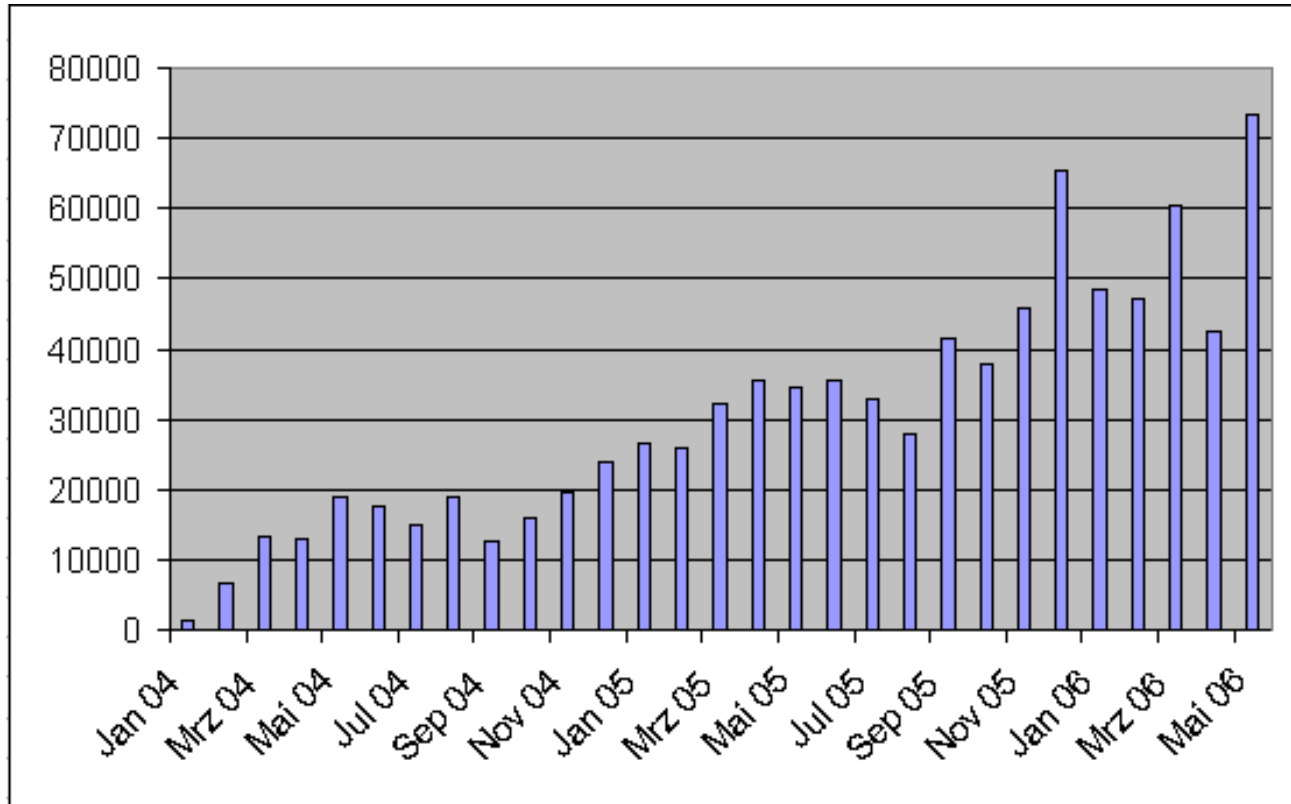# Co-operative Development of a Long-term Digital Information Archive

iPRES2006 conference, Cornell

Reinhard Altenhöner / Tobias Steinke, DNB

NIEDERSÄCHSISCHE STAATS- UND
UNIVERSITÄTSBIBLIOTHEK GÖTTINGEN

GWDG

IBM

- Long-term preservation: Raising awareness and creating a network of expertise: The nestor initiative

- Pressure comes from a new legal deposit in Germany

- Need for a practical solution for heterogeneous groups of users and data-sets

- Need for a reliable and reusable solution

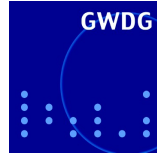# www.langzeitarchivierung.de

Page Impressions 2004 – 2006 (IVW)

- Long-term preservation: Raising awareness and creating a network: The nestor initiative

- Pressure from a new foundation for a legal deposit in Germany

- Need for a practical solution for heterogeneous groups of users and data-sets

- Need for a reliable and reusable solution

GEFÖRDERT VOM

Bundesministerium
für Bildung
und Forschung

- Funded by the Federal Ministry for Education and Research

- Financial volume: 4,2 Mio € + self-financed activities of all partners, duration: 1.7.2004 – 30.9.2007

- Task: Development of a standardized long-term preservation solution to facilitate long-term preservation for other libraries / industries

- Solution should be a facilitator for co-operation between libraries
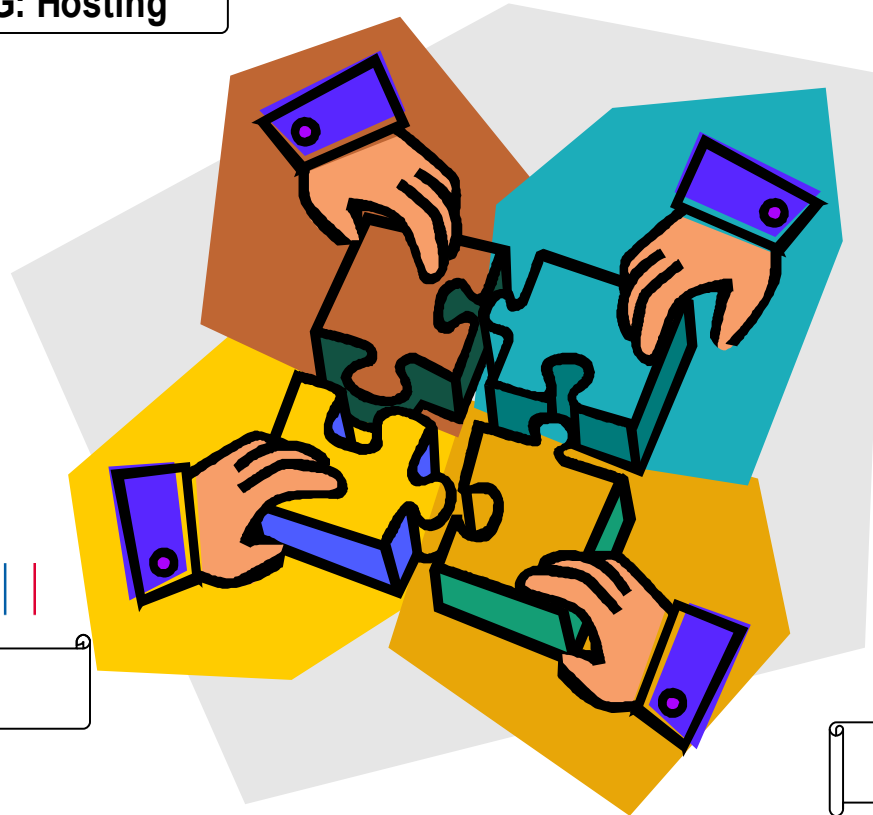
- Cooperation - Standardization - Reusability

GWDG: Hosting

IBM: Archiving SW

DNB: Ingest/Acess SW

SUB: Ingest/Acess SW

Common activity: Preservation Planning

Workpackages

kopal
Data into the future

DIAS-CORE

Basic development (E1)

Basic installation incl. multi-user support

Format support and administrations functionalities

Preservation planning (E3)

Planing / Concept

workflow definition

development and integration in DIAS-Core

Local systems

Basic connection (E2)

Builder:
universal / individual
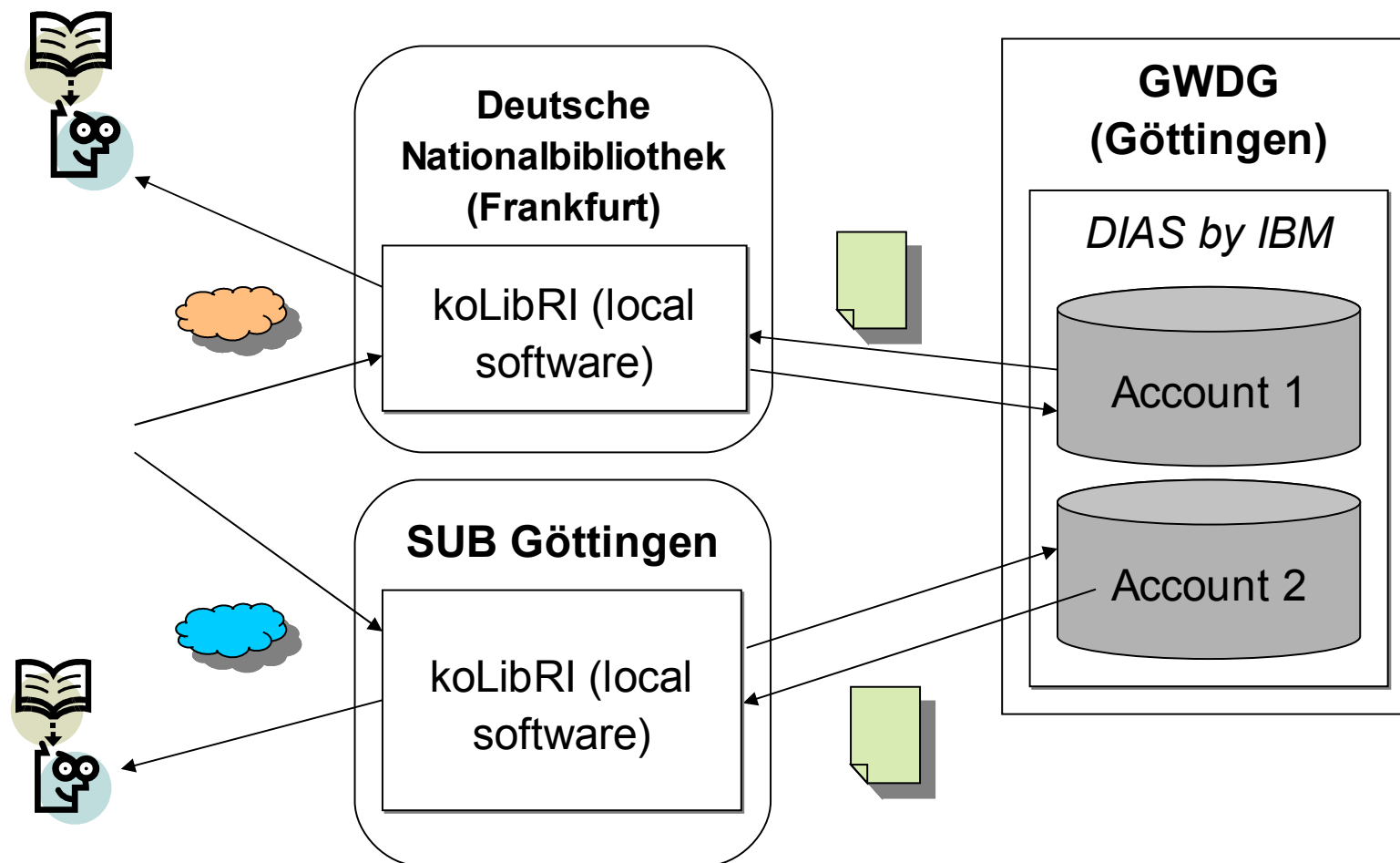
Access:
universal / individual

Exemplary data transfer (E4)

material and development from Deutsche Nationalbibliothek

material and development from SUB Göttingen

NIEDERSÄCHSISCHE STAATS- UND UNIVERSITÄTSBIBLIOTHEK GÖTTINGEN   GWDG   IBM

Time schedule: data ingest up to the end of the project

kopal
Data into the future

Development data ingest for DNB
(without Web Harvesting)

Needed capacity in TB

	Dissertations	Springer Serials	Springer Artikel	Exilpresse	Digitalisate DBSM	Digitalisate HAB	CD-Roms	DVD-Roms
amount	**0,3**	0,22	0,25	0,15	5	1,5	2	2
	0,3	0,22	0,25	0,15	5	1,5	42	15
	August 06	September 06	Oktober 06	Dezember 06	Januar 07	März 07	Juni 07	Oktober 07

Legend: amount, total, Local cache (1.4 TB)

total values: 0,52 · 0,77 · 0,92 · 5,9 · 7,4 · 9,4 · 11,4
amount values: 49 · 64

Time scale

Establishing service models for kopal

- We want to provide a modular service in a customer-based perspective

- We offer general consultation, support, services

- And we release know-how (standards), partnership/cooperative use, full service

- Our model must guarantee the refunding for our offers
  - One can keep guidance and aid
  - One can take a partial stewardship
  - One can order a complete system

NIEDERSÄCHSISCHE STAATS- UND
UNIVERSITÄTSBIBLIOTHEK GÖTTINGEN

GWDG

IBM

Technical concepts of kopal

- Global core (DIAS) and local software (koLibRI)

- Open interfaces: Universal Object Format

- Preservation Planning: Migration Manager and File Format Registry

Global core and local software

- ## DIAS
  - IBM development for the National Library of the Netherlands
  - Conforming to the OAIS reference model
  - Based on IBM standard software (Content Manager, TSM, etc.)
  - Enhancements for kopal: open interfaces (Universal Object Format), multi-user support, query interface to Data Management
- ## koLibRI
  - kopal Library for Retrieval and Ingest
  - Open source development by DNB and SUB Göttingen
  - Tools to generate technical metadata (using JHOVE), create ingest packages and migrate objects

Universal Object Format

- Generic description of packages for archiving and exchanging of digital objects

- Based on METS (special METS profile) and LMER (Long-term preservation Metadata for Electronic Resources)

- One packed file (e. g. ZIP or tar) per logical object, containing one METS file with descriptive metadata (e. g. Dublin Core) and technical metadata for long-term preservation (LMER)

- In kopal used as SIP and DIP (OAIS); metadata (Dublin Core and LMER) is stored in Data Management of DIAS

NIEDERSÄCHSISCHE STAATS- UND UNIVERSITÄTSBIBLIOTHEK GÖTTINGEN

GWDG

Preservation Planning

- DIAS: Query interface to Data Management (technical metadata and optional Dublin Core)

- koLibRI: Migration Manager to perform queries, call conversion tools and re-ingest migrated objects

- Planned support for a File Format Registry: Database about file format characteristics, view paths, migration paths and emulation environments

Thank you!

kopal
Data into the future

Visit **http://kopal.langzeitarchivierung.de**

- Download of koLibRI (beta)

- kopal demonstrator (Flash animation)

- Specifications of the Universal Object Format

NIEDERSÄCHSISCHE STAATS- UND
UNIVERSITÄTSBIBLIOTHEK GÖTTINGEN

GWDG

IBM