



Building China Academic Digital Library

Introduction to the national project of CALIS between 2001-2005

Feng, Ying

CALIS Administrative Center

August, 2005

E-mail: fengy@calis.edu.cn

Outline

- Introduction to CALIS
- Introduction to China Academic Digital Library Information Systems (**CADLIS**)
- Architecture and Main Components of CADLIS
- Progress of CADLIS

- Introduction to CALIS
- Introduction to China Academic Digital Library Information Systems (CADLIS)
- Architecture and Main Components of CADLIS
- Progress of CADLIS

What's CALIS

China Academic Library & Information System

- One of the three public service systems of national higher education
- A nation-wide academic library consortium
- Funded by Chinese government
- Under the leadership of Ministry of Education
- To promote, maintain and improve resource sharing



中国高等教育文献保障系统

China Academic Library & Information System

首页 | CALIS概况 | 会议与培训 | 子项目建设 | 产品与技术 | CALIS新闻 | 服务推介 | 合作交流

如何加入

站点地图



子项目建设

- ▶ 联合目录子项目
- ▶ 引进数据库子项目
- ▶ 高校学位论文库子项目
- ▶ 专题特色数据库子项目
- ▶ 重点学科导航库子项目
- ▶ 虚拟参考咨询子项目
- ▶ 教学参考信息子项目
- ▶ 资源评估子项目
- ▶ 标准规范建设



产品与技术

- ▶ 统一检索平台
- ▶ 联机合作编目系统
- ▶ 虚拟参考咨询系统
- ▶ 馆际互借与文献传递
- ▶ 资源调度系统
- ▶ CCC西文期刊篇名目次

CALIS快讯

- 热烈庆祝“CADLIS项目启动暨成果汇报大会”胜利召开 **NEW!** 2004-11-5
- 中文三级编目员资格认证第二次考试通知 **NEW!** 2004-10-25
- CVRS本地咨询系统开发进度 **NEW!** 2004-10-15
- 关于CCC西文期刊目次数据库停止开放试用的通知 2004-9-10
- CALIS“十五”特色库项目本地系统认证工作通报 2004-8-31



CALIS动态

[更多]

- 热烈庆祝“CADLIS项目启动暨成果汇报大会”胜利召开 **NEW!** 2004-11-5
- “2004数字图书馆系统建设方案研讨会”在厦门隆重召开! 2004-7-29
- 热烈庆祝“中欧数字资源长期保存国际研讨会”胜利召开 2004-7-13



子项目动态

[更多]

- [联合目录] CALIS联合目录中文三级编目员资格认证名额分配 **NEW!**
- [联合目录] CALIS联合目录中文三级编目员资格认证报名须知 **NEW!**
- [联合目录] 中文三级编目员资格认证第二次考试通知 **NEW!**
- [参考咨询] CVRS本地咨询系统开发进度 **NEW!**
- [学位论文] 7-9月, 提出“CALIS学位论文子项目中心”系统功能需求, 落

内部信息库

用户名:

密码:

确定

清除

CALIS概况

- CALIS介绍
- 管理委员会
- 管理中心
- 专家委员会
- 服务体系
 - 全国中心
 - 地区中心
 - 省中心
 - 成员馆
 - 数字图书馆基地
- 管理制度

服务推介

- 联机编目
- 集团采购
- 文献传递服务网
- 数字图书馆解决方案
- 中文资源导航

Phase I and Phase II of CALIS

- Phase I, 1996-2000

China Academic Library & Information System

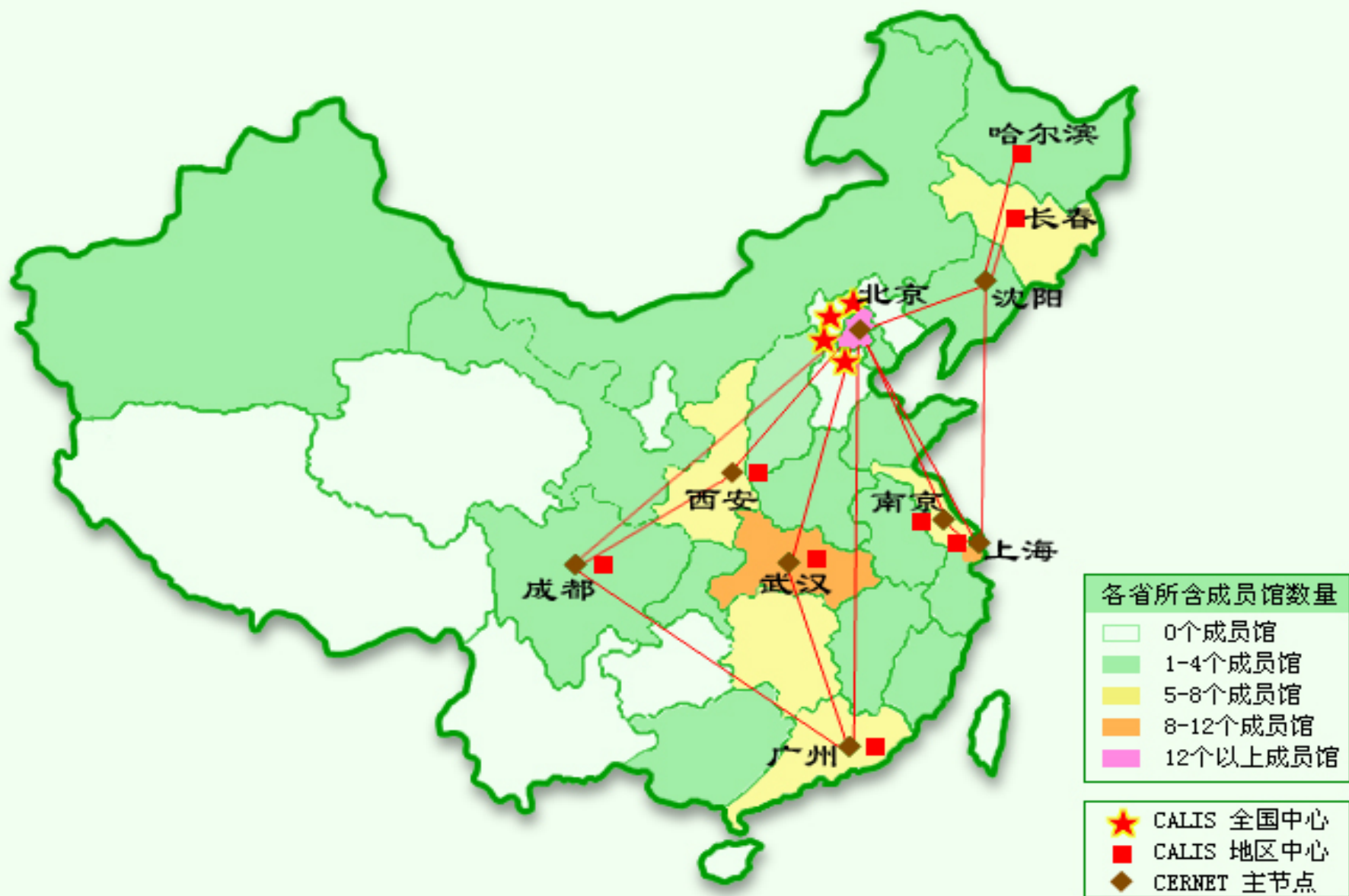
- Phase II, 2001-2005

China Academic Digital Library Information System

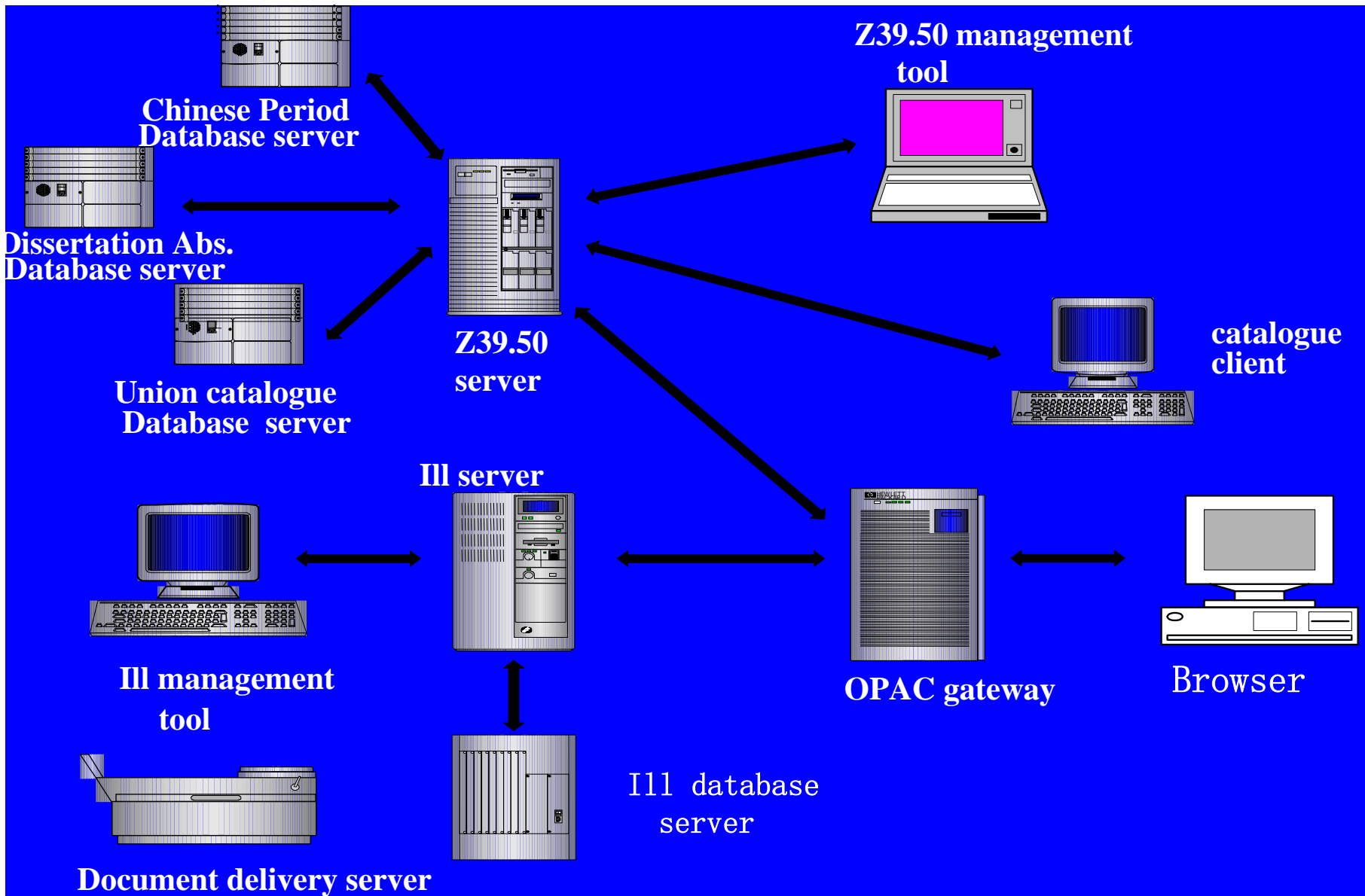
Achievements of Phase I

- CALIS has established
 - CALIS Information Service Network
 - ❑ 3-tiered service structure: 4 national information centers, 7 regional information centers, over 400 member libraries
 - CALIS Information Resource Network
 - ❑ Imported resources: Abstract & index, Full text, e-journals, factual database, etc.
 - ❑ Self-built resources

中国高等教育文献保障系统发展示意图



Integration of CALIS Software System



- Introduction to CALIS
- Introduction to China Academic Digital Library Information System (CADLIS)
- Architecture and Main Components of CADLIS
- Progress of CADLIS

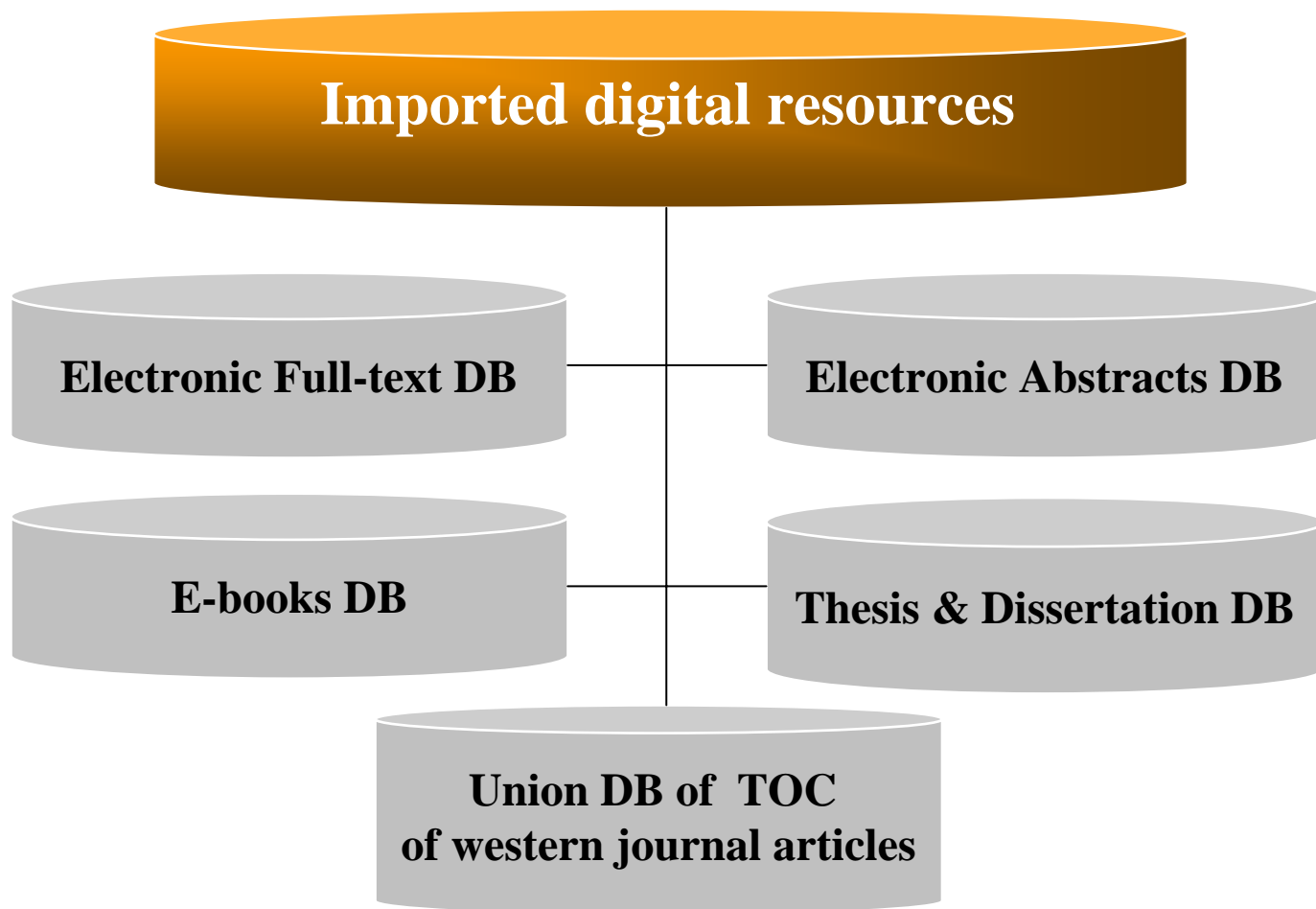
Goals of CALIS Phase II

- By the end of 2005, establish the framework and infrastructure of an open distributed China Academic Digital Library over a ten hundred universities
- Co-development, distributed access, shared knowledge
- Provide services for higher education, academic research and key disciplines
- Promote to make and use standards and specifications of digital libraries in china

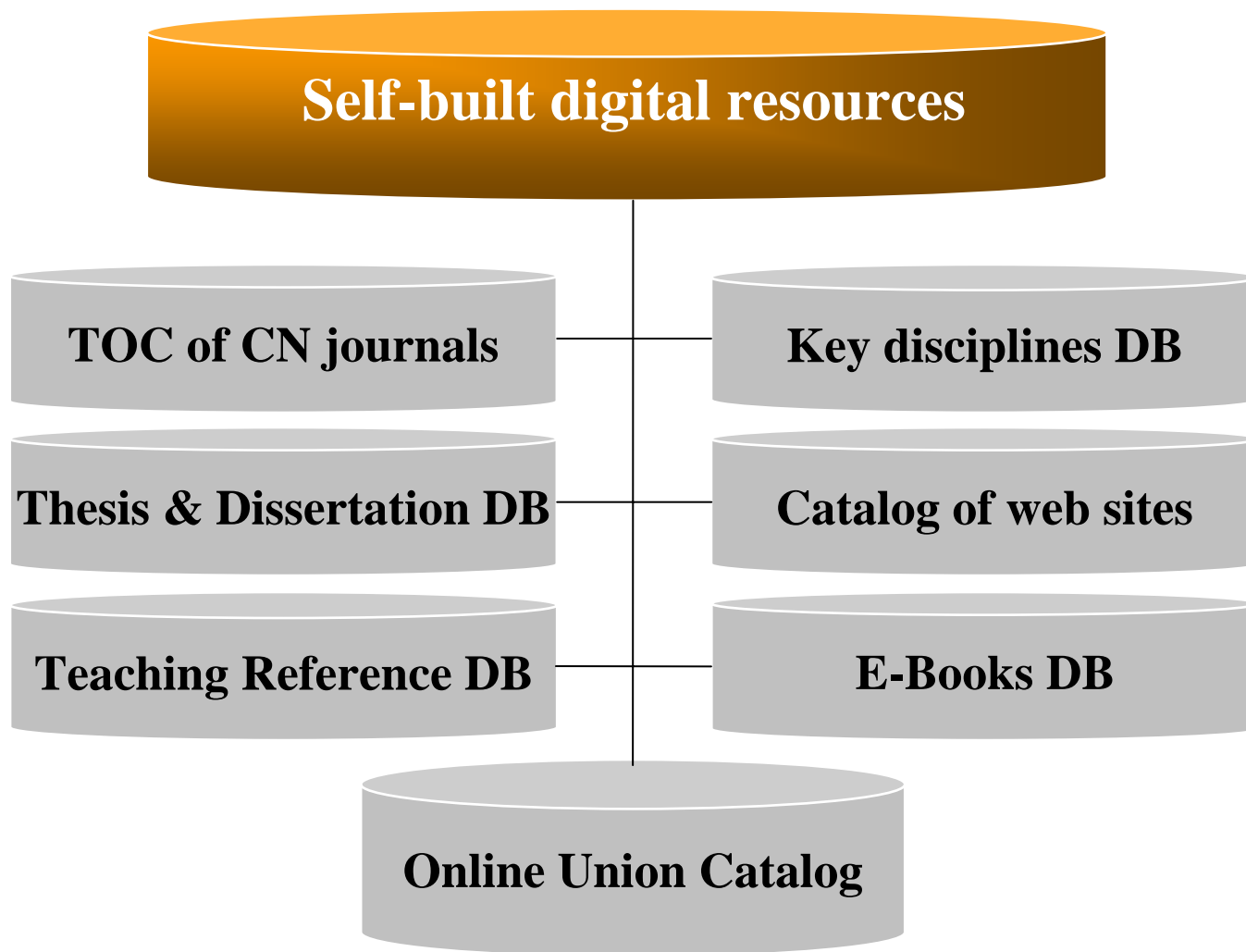
Scope of Content

- Metadata centralized, objects distributed
- Contents
 - Imported resources
 - ❑ Licensed databases, e-books, ETD, etc.
 - Self-built resources
 - ❑ Thesis and dissertations, union catalogue, reserved e-books, journals articles, teaching reference information, etc.

Imported Digital Resources in CADLIS



Self-built Digital Resources in CADLIS



Expected Amount of Contents

- By the end of 2005, there will be
 - 30,000 Chinese and western journals
 - 20 million records of journal articles
 - 3 million bibliographic data and 6 million holdings
 - 1 million thesis and dissertation full-text
 - 20,000 reserved e-books
 - 300 electronic databases

Key Digital Resources in CADLIS

- CALIS Thesis & Dissertations
 - Abstract database: 100,000 abstracts over 80 universities
 - Full-text database: under construction
- Teaching reference information database
 - consisting of items about schools, departments, disciplines, specialties, courses, major/elective, teachers, teaching materials, reference books(bibliographies, abstracts), etc.

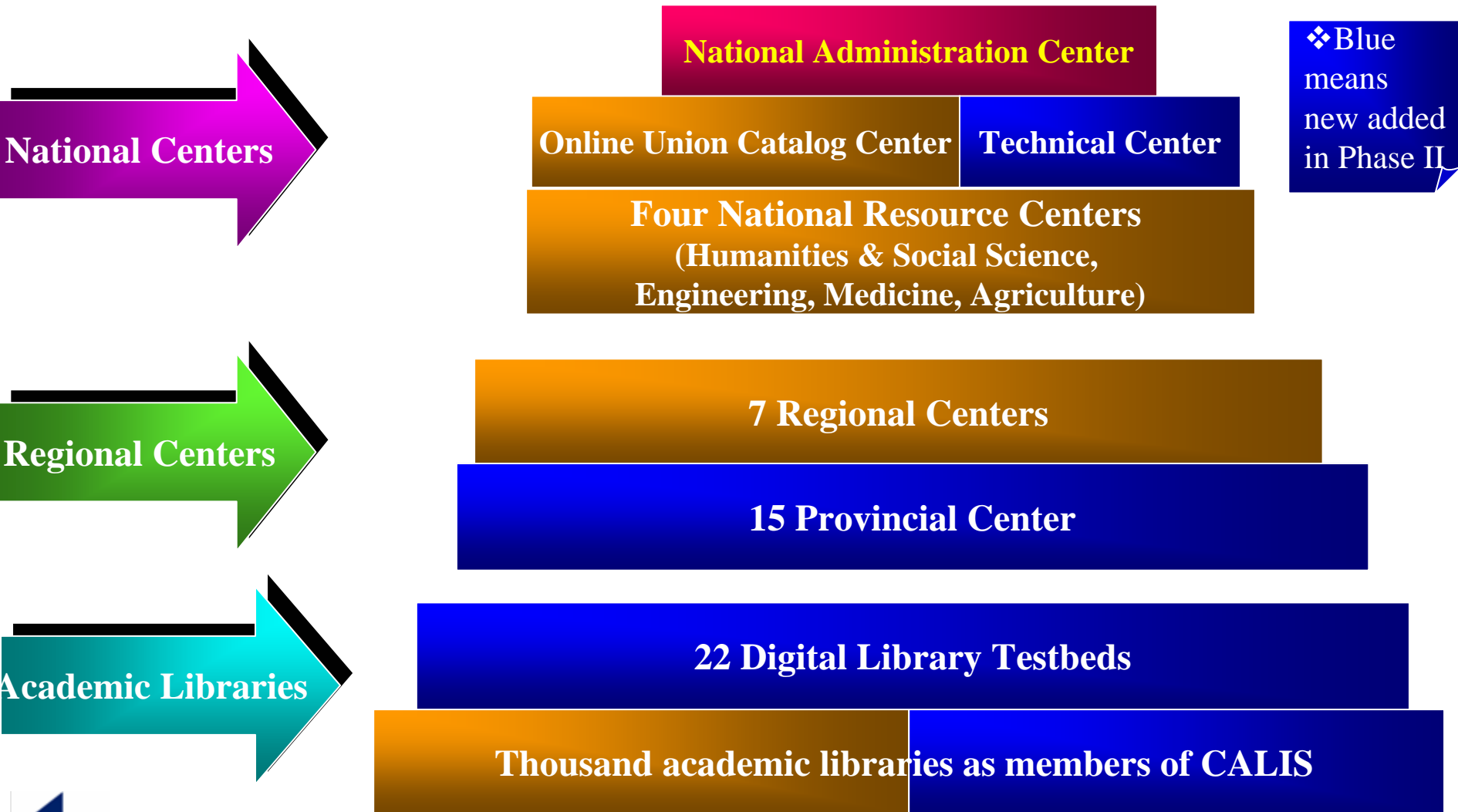
Key Digital Resources in CADLIS (cont.)

- TOC of Western & Chinese journal titles
 - 2 millions of metadata of titles from 23,000 western journals
 - 1.37 million of metadata of titles from 5,500 chinese journals
 - holding data of journals collected by three kinds of libraries in china (academic libraries, public libraries, institutional libraries)

Services of CADLIS

- Discovery
- Access
- Personalization
- Authorization and authentication
- Pay per view
- Virtual reference
-

Service network of CALIS



Standards and Specifications

- Standards and Specifications for Academic Digital Library
 - Based upon the national project “Research of standards of China Digital Libraries” funded by Ministry of Science & Technology
- Standards for evaluation on resources and services in China academic digital library
- Specifications of operations in academic digital libraries, such as retrieval and access, cataloging, consulting services, etc.

Contents of Standards and Specifications of Digital Libraries

- Digitalization and archival storage of resources
- Description and categorization of digital objects
- Management, organization and link of digital objects
- A Series of Metadata and their interoperability
- Architecture of digital libraries and their interoperability
- Patterns and specifications of services of digital libraries

Outline

- Introduction to CALIS
- Introduction to China Academic Digital Library Information Systems (CADLIS)
- Architecture and Main Components of CADLIS
- Progress of CADLIS

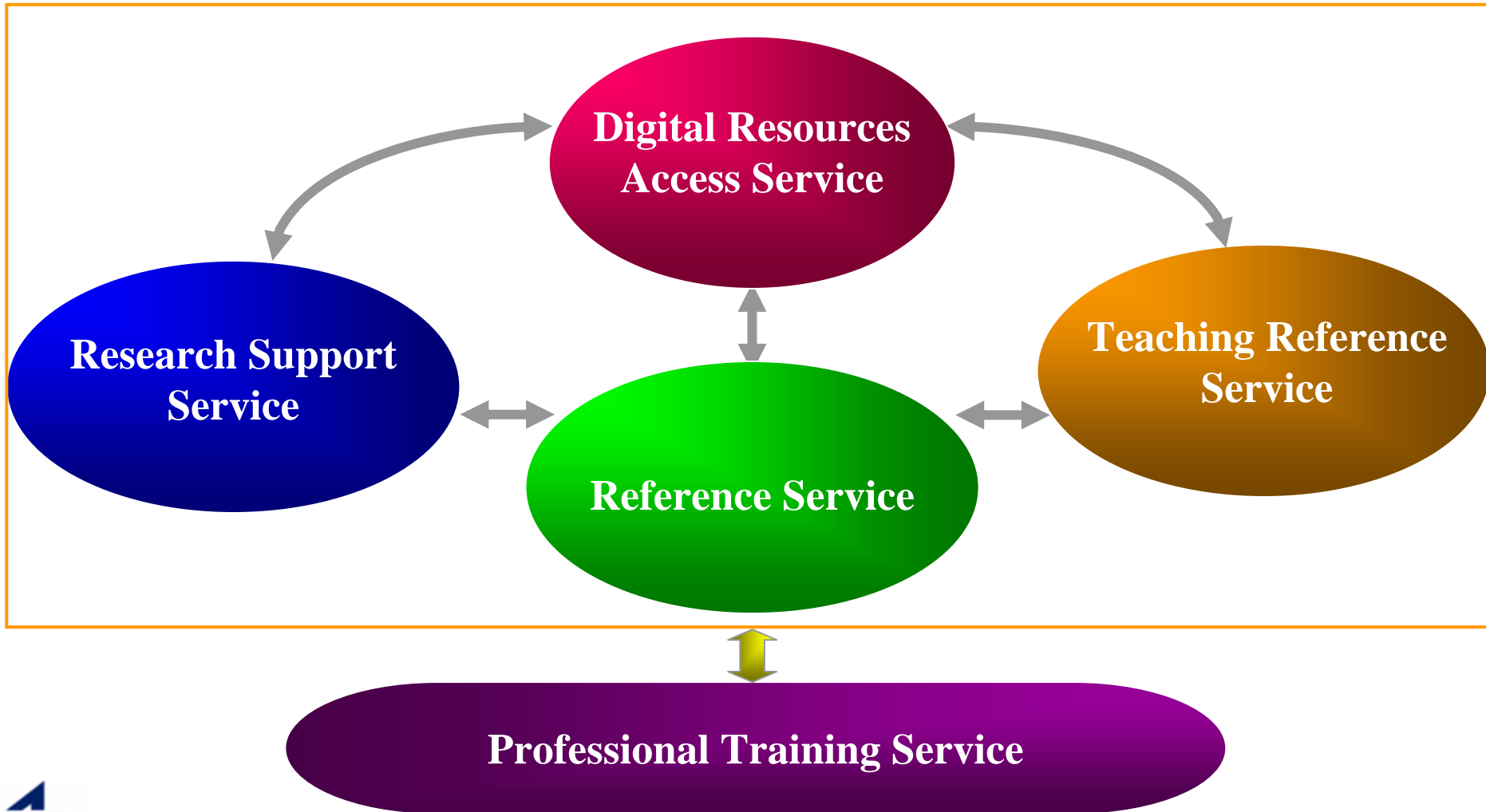
Technical Infrastructure



Goals of Technical Infrastructures

- Build distributed academic digital libraries systems for 1,000 universities
- Provide commercial services of academic digital libraries
- Able to inter-connect with other national digital libraries
- Able to interoperate with global digital libraries in some international projects in collaboration with CALIS

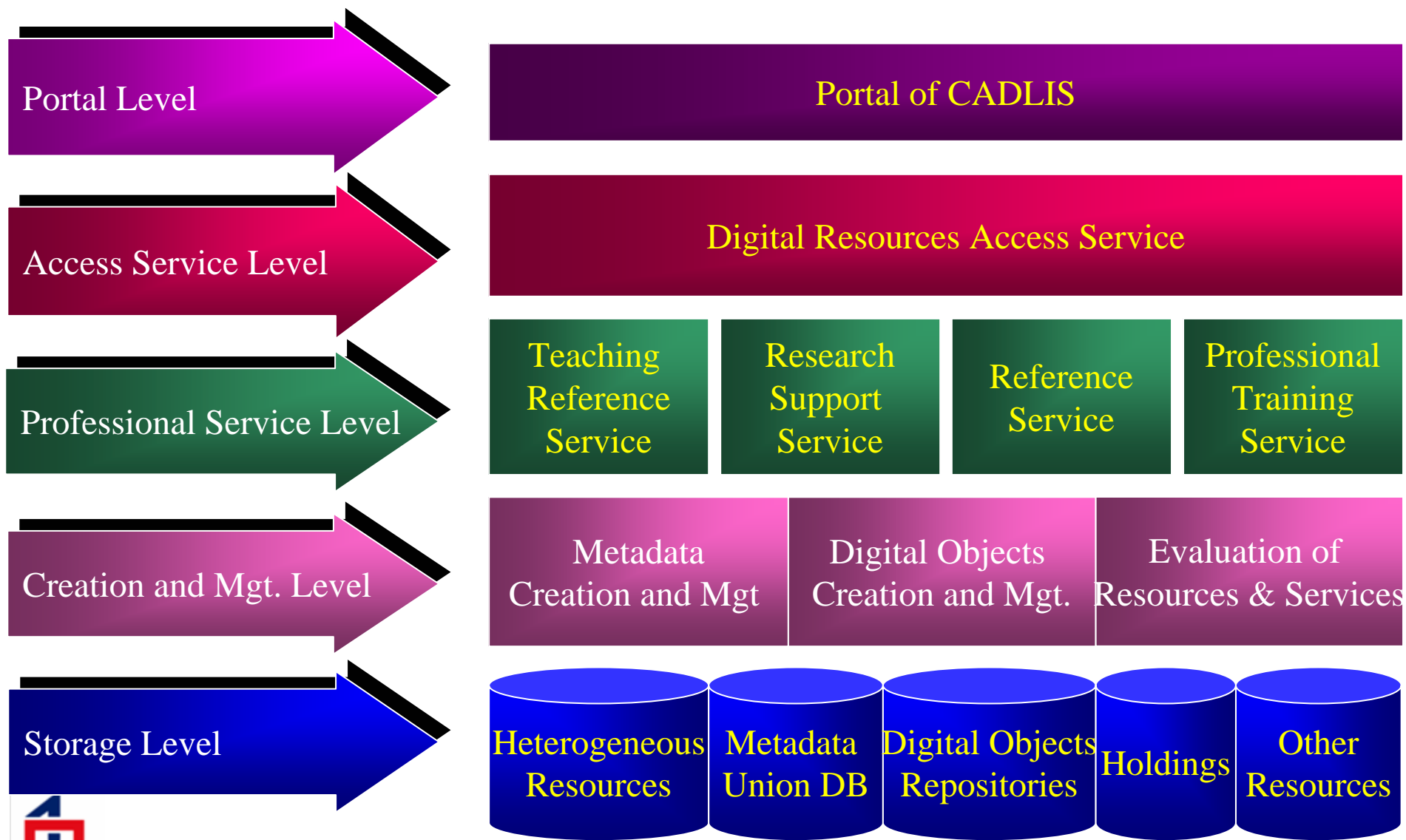
Five distributed Services of CADLIS



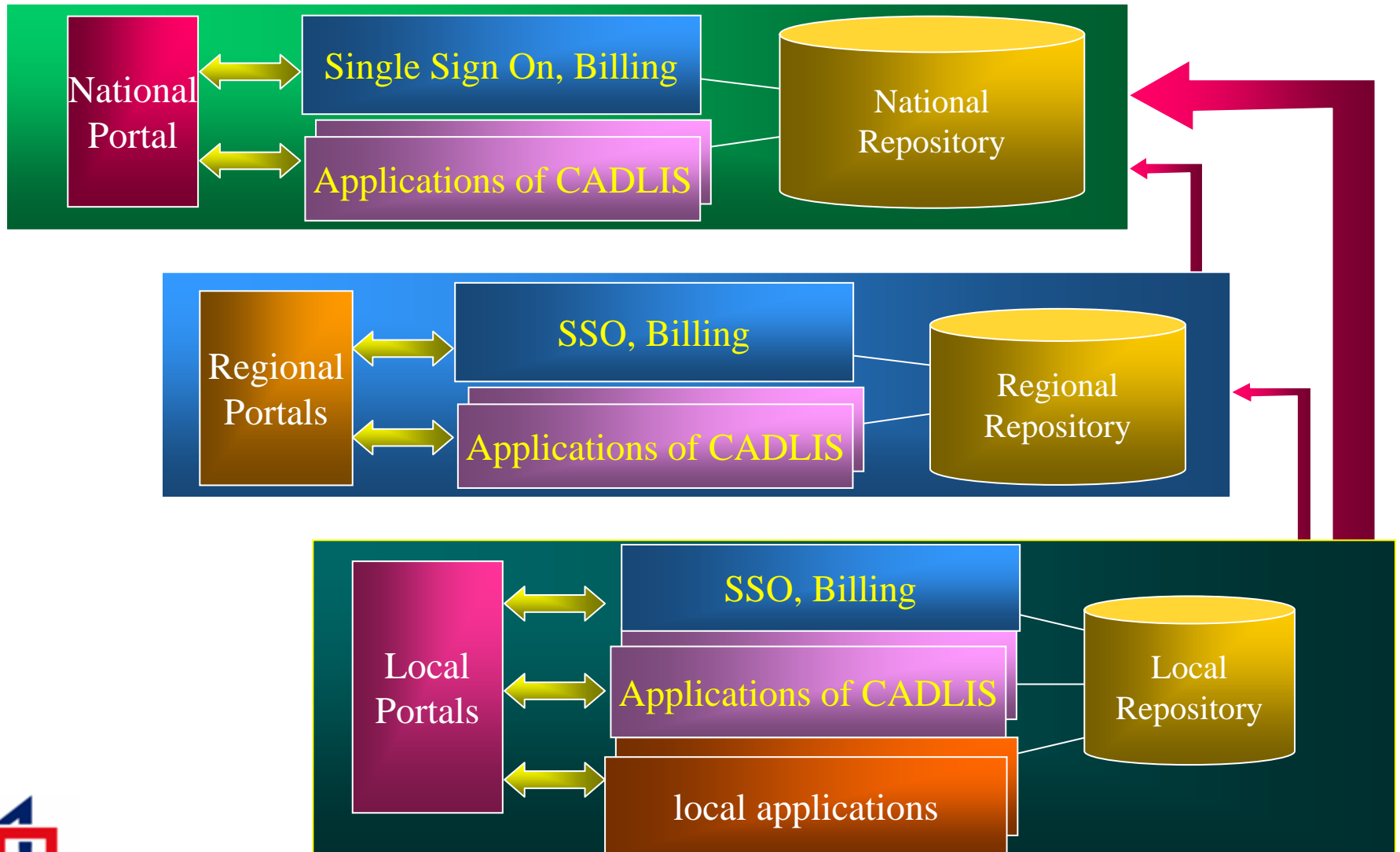
Architecture and main components of CADLIS



Architecture of China Academic Digital Library



Three levels of deployment of CADLIS



Portal of CADLIS



Portal of China Academic Digital Libraries (CADLIS)

- Provide users with a single access point to a range of services, such as discover, locate, request and embedded other useful functionalities
- Provide tools for portal customization, standard interfaces to services, single sign on (SSO), etc.



CADLIS

中国高等教育数字图书馆

设为首页 加入收藏

首页 | 统一检索 | 资源导航 | 信息服务 | 用户专区 | 标准规范

用户登录

用户名:

密码:

新闻动态

CALIS西文三级编目员...
关于举办“CALIS数字...
CADLIS项目启动暨成...
关于公网用户访问CALI...
[更多..](#)



>> 用户反馈 <<

统一检索

本系统提供了基于异构系统的资源跨库检索服务，用户可按学科、按数据库名称、按文种同时检索多个系统中的多个资源，包括数据库、电子期刊和电子图书。

用户专区

本专区针对门户正式用户提供个性化服务的空间，为各类型用户提供了可定制的个性化服务。

资源导航

按学科导航
按名称导航
按类型导航

信息服务

馆际互借	虚拟参考咨询
联合目录	CCC
科研协作	教参辅助
网上培训	资源代理

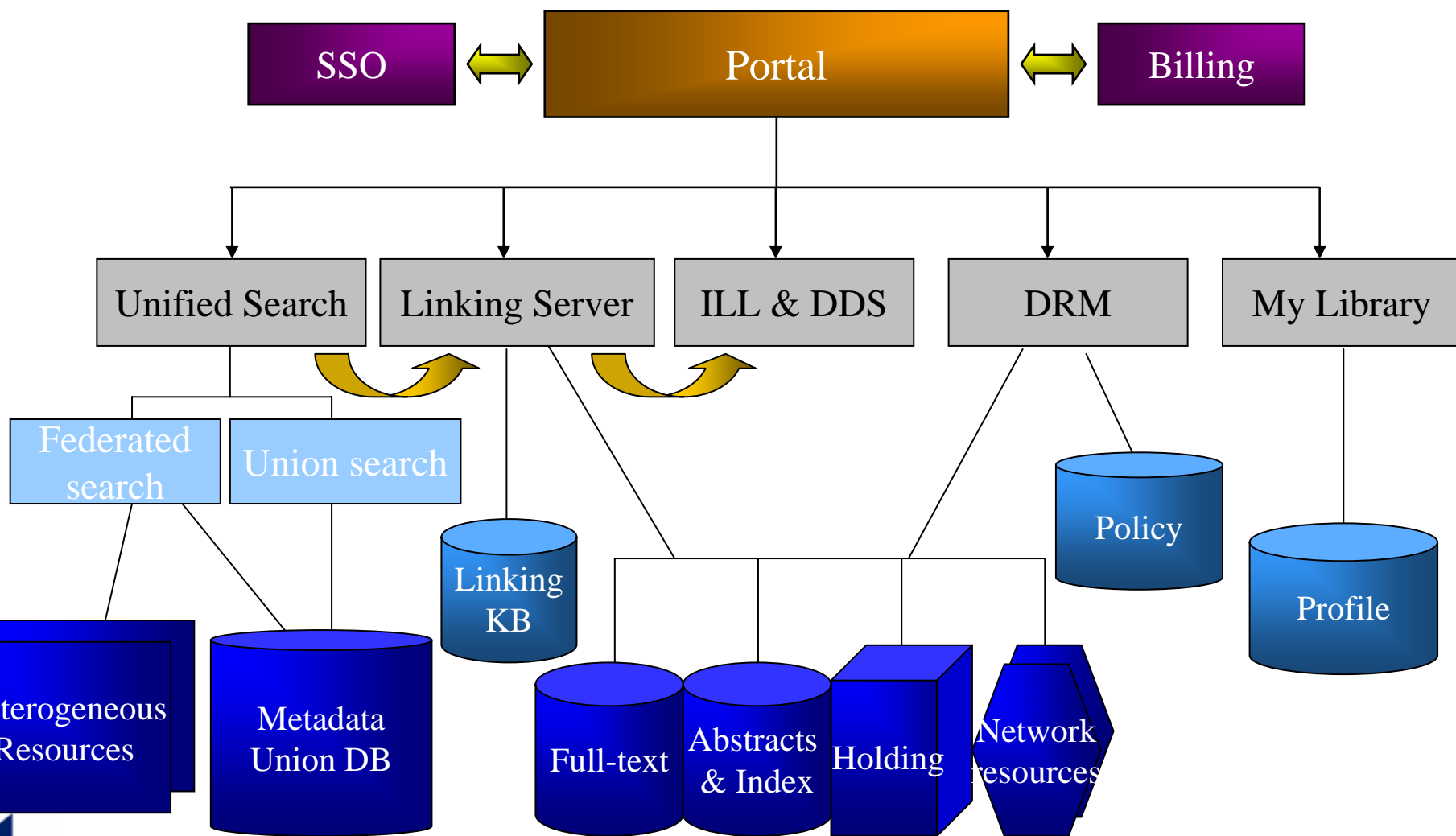
标准规范

标准规范内容

Digital Resource Access Service in CADLIS



Architecture of Digital Resource Access Service in CADLIS



- 学科列表
- 生物/医学
 - 数学
 - 物理/天文/航空航天
 - 计算机/通讯/电子/信息科学
 - 工程技术/能源
 - 化学/化工
 - 地质/地理/环境科学
 - 政治/法律/公共事务
 - 哲学/宗教/心理学
 - 人文/社会学/历史
 - 语言/文学/教育
 - 综合及其它
 - 经济/工商
 - 农业/林业

查找资源

西文 查找

- 浏览资源
- All A B C D E F G
H I J K L M N O P
Q R S T U V W X Y
Z

登录用户信息

用户名: calistest
IP地址: 162.105.139.44
注册单位: calistest
联系人:

【当前可检索资源列表】

重置 添加到我的资源列表

<input checked="" type="checkbox"/> Safety Science and Risk(CSA)	<input checked="" type="checkbox"/> Plant Science(CSA)
<input checked="" type="checkbox"/> Oceanic Abstracts(CSA)	<input checked="" type="checkbox"/> MEDLINE(CSA)
<input checked="" type="checkbox"/> Biological Sciences(CSA)	<input checked="" type="checkbox"/> 全文 Kluwer Academic
<input checked="" type="checkbox"/> 全文 Nature	<input checked="" type="checkbox"/> Science Citation Index
<input checked="" type="checkbox"/> 全文 Elsevier Science	<input checked="" type="checkbox"/> MEDLINE(OCLC)
<input checked="" type="checkbox"/> ECO(OCLC)	<input checked="" type="checkbox"/> 中文科技期刊数据库
<input checked="" type="checkbox"/> Aquatic Sciences and Fisheries Abstracts(CSA)	<input checked="" type="checkbox"/> AGRICOLA(CSA)
<input checked="" type="checkbox"/> Solid State and Superconductivity Abstracts(CSA)	<input checked="" type="checkbox"/> 全文 Institute of Physics
<input type="checkbox"/> Electronics and Communications Abstracts(CSA)	<input type="checkbox"/> Computer and Information Systems Abstracts(CSA)
<input type="checkbox"/> 全文 ABI/INFORM	<input type="checkbox"/> 全文 IEEE/IEE Electronic Library
<input type="checkbox"/> 全文 WinsonSelectPlus(OCLC)	<input type="checkbox"/> Materials Business File(CSA)
<input type="checkbox"/> METADEX(CSA)	<input type="checkbox"/> Engineered Materials Abstracts(CSA)
<input type="checkbox"/> Corrosion Abstracts(CSA)	<input type="checkbox"/> Copper Data Center Database(CSA)
<input type="checkbox"/> Ceramic Abstracts/World Ceramics Abstracts(CSA)	<input type="checkbox"/> Aluminium Industry Abstracts(CSA)
<input type="checkbox"/> TOXLINE(CSA)	<input type="checkbox"/> Environmental Sciences and Pollution Mgmt(CSA)
<input type="checkbox"/> 中国法律法规库(中国资讯行)	<input type="checkbox"/> Conference Papers Index(CSA)
<input type="checkbox"/> Biotechnology and Bioengineering Abstracts(CSA)	<input type="checkbox"/> ArticleFirst(OCLC)
<input type="checkbox"/> 全文 中国人物库(中国资讯行)	<input type="checkbox"/> 中国统计数据库(中国资讯行)
<input type="checkbox"/> WorldCat(OCLC)	<input type="checkbox"/> WorldAlmanac(OCLC)
<input type="checkbox"/> Proceedings(OCLC)	<input type="checkbox"/> PaperFirst(OCLC)
<input type="checkbox"/> GPO(OCLC)	<input type="checkbox"/> ERIC(OCLC)
<input type="checkbox"/> NTIS(CSA)	<input type="checkbox"/> UnionLists(OCLC)

Example of Reference Linking System

The image illustrates a reference linking system through four browser windows:

- Window 1 (Left):** Kluwer Online Journals. Article title: "Can rats prey on gull eggs? An experimental approach". The text "资源调度" (Resource Scheduling) is highlighted in red.
- Window 2 (Middle):** CALIS资源调度系统 (China Academic Library & Information System). A menu of services is shown, including "RSC论文库" (RSC Literature Library), "WorldCat文献库" (WorldCat Literature Library), and "北大天网搜索" (Peking University Internet Search).
- Window 3 (Top Right):** Cambridge Scientific Abstracts (CSA) Internet Database Service. Search results for "cdma" are displayed, including a record titled "A mathematical characterization and analysis of a feedforward circuit for CDMA applications".
- Window 4 (Bottom Right):** CiteSeer: The NEC Research Institute Scientific Literature Digital Library. The main page is shown with navigation links for "Main page", "Publications", and "Home page".

Arrows indicate the flow of information: a red arrow points from the article title in Window 1 to the "RSC论文库" menu item in Window 2. A yellow arrow labeled "Fulltext" points from the "RSC论文库" menu item to the search results in Window 3. An orange arrow labeled "Citation" points from the search results in Window 3 to the CiteSeer logo in Window 4.

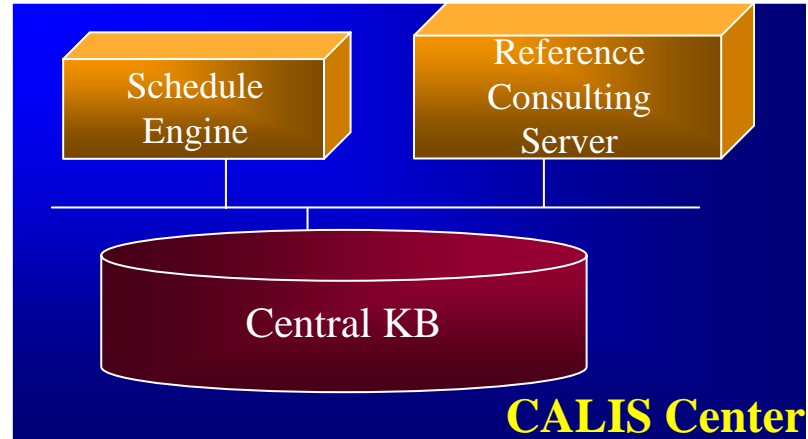
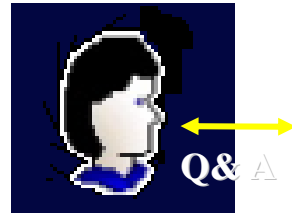
Reference Service in CADLIS



Reference Consulting Service

- Building two-level distributed reference service platforms: one national and a group of local service platforms.
Building a centralized Knowledge database and a national Learning Center
- Mainly relying on local librarians to provide reference services in cooperation with other librarians.
- Librarians can give answers quickly to readers while they access academic digital libraries.

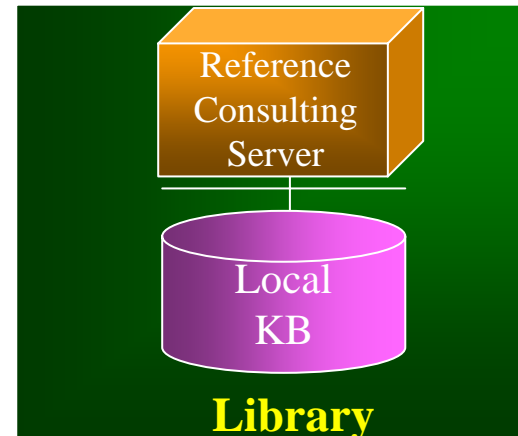
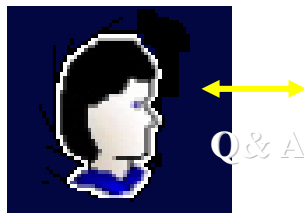
Components of Reference Consulting Service



- Central Reference Consulting System
- Central KB
- Central Schedule Engine



- Local Reference Consulting System
- Local KB



Teaching Reference Service in CADLIS



Teaching Reference Service

- Building distributed online teaching reference information databases (such as courses, teachers, teaching materials, bibliographies, e-books, etc.) from universities, allowing teachers and students to search and retrieve.
- Content of Teaching Reference Databases covers major disciplines such as humanities and social science, engineering, medicine, agriculture, etc.
- Using DRM technology to protect the authorized copies of materials.

Components of Teaching Reference Service

- e-Book Management subsystem
- Teaching Reference Information Management subsystem
- e-Book service subsystem
- Teaching Reference Database
- Bibliographic e-Book database

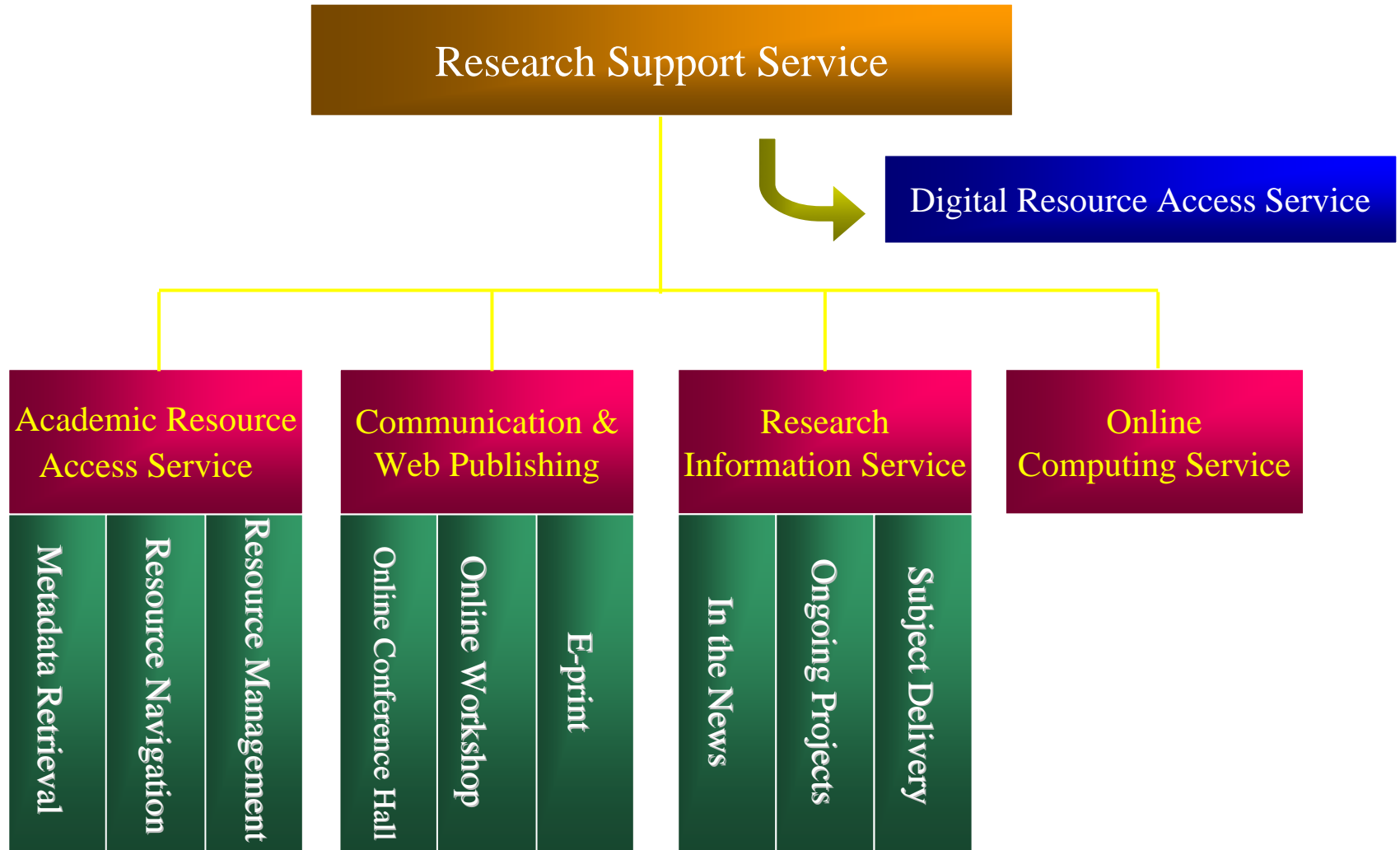
Research Support Service in CADLIS



Research Support Service

- Building e-print and web publishing systems for academic libraries
- Building online communities for researchers for their cooperation and academic communication
- Facilitating sharing and commenting resources for researchers across disciplines as well as between universities and other institutions.
- Based on network technology and digital resources provided by CALIS and academic libraries

Components of Research Support Service



Professional Training Service in CADLIS



Professional Training Service

- Building multimedia e-Learning system for librarians
- Organizing specialists to write training materials about specifications and operation guides of digital libraries
- Providing training services at CALIS national center as well as regional centers
- Providing online training and examination services
- Making more librarians to get on-time and effective professional trainings

Some Other Systems in CADLIS

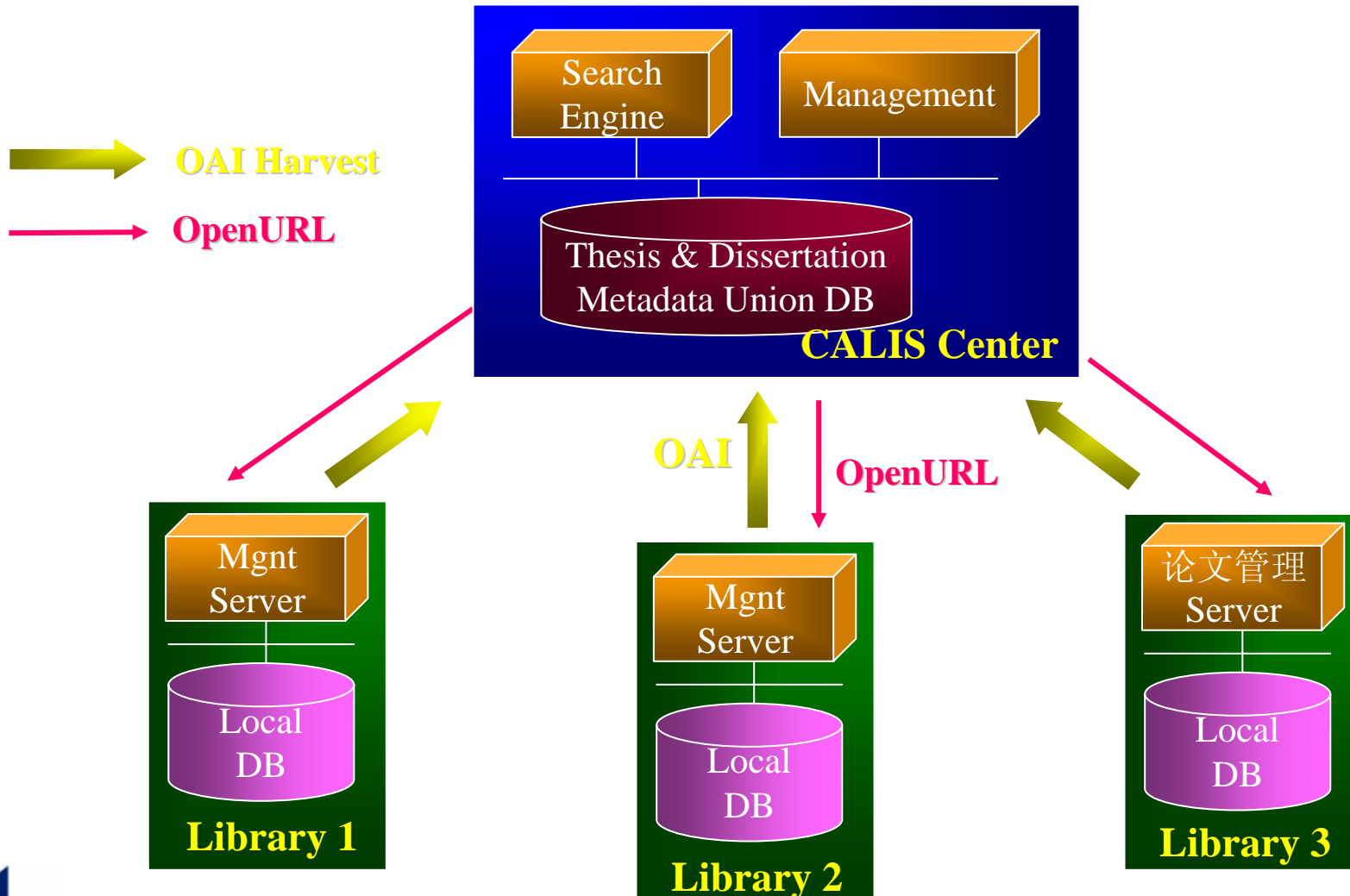


Online System of Thesis & Dissertation

To provide digital ETDs online access service

- Building a central union DB to store metadata of thesis & dissertation from member universities
- Providing an union search to access the Union DB
- Using OAI protocol to harvest metadata from libraries
- Using OpenURL to access full-text from local academic libraries
- Using DRM technology to protect intelligent property

Harvesting metadata of ETDs



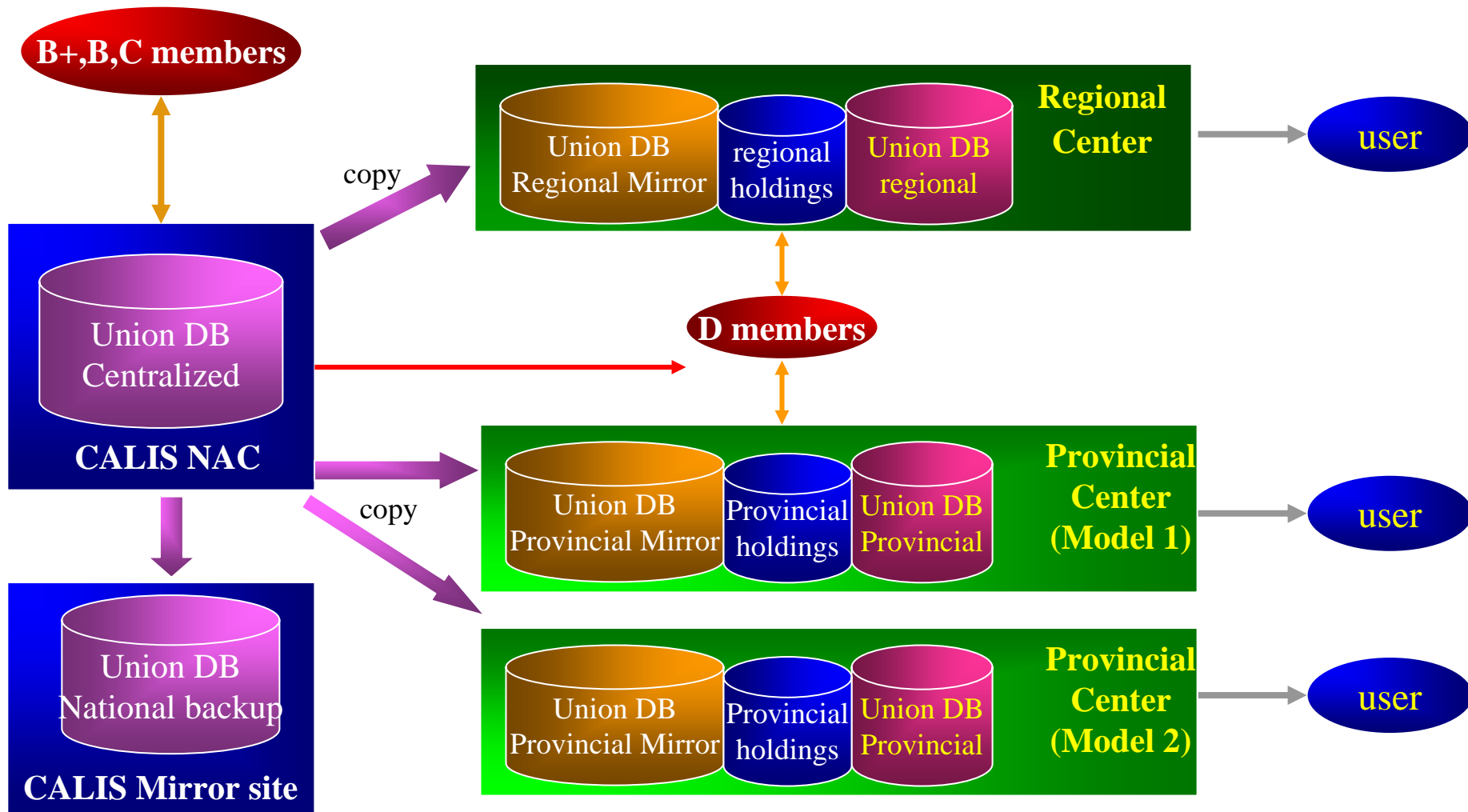
Online Union Catalog System

- Sole online cooperated cataloging system in China, having millions of bibliographic records
- Support Unicode
- Support CNMARC、USMARC、JPMARC, etc.
- First fully support cataloging for western languages in China

- Support multi-tiered and distributed deployment
- Support large amount of online users
- Provide real-time bibliographic record upload and holdings upload service

- Over 500 member libraries
- Up to 1,000 member libraries by the end of 2005

Distributed Deployment of Online Union Catalog



Outline

- Introduction to CALIS
- Introduction to China Academic Digital Library Information Systems (CADLIS)
- Architecture and Main Components of CADLIS
- Progress of CADLIS

Progress of CADLIS

- Some of applications of CADLIS will be tested at many libraries
- All of applications will be developed by the end of September 2005. Over 300 academic libraries will join the testing of them.
- In 2005, all applications need to be stabilized, and will be deployed in 800 academic libraries smoothly.

The national project of CADLIS will be completed.



Thanks !

www.calis.edu.cn

