



The Z Texas Implementation Component of the Library of Texas

The Texas Library Directory Database: *A Multipurpose Database for the Library of Texas*

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Library of Texas



Library of Texas (LOT)

A statewide service-based virtual library that uses current and emerging computer and Internet technologies to expand the reach and range of all Texans to the state's libraries and their resources.

ZLOT – Z component of the Library of Texas



- University of North Texas team
- Support implementation of the Resource Discovery Service (RDS)
- The RDS is a metasearch application
- 2 year project
 - 7 months of Texas Library Directory Database development

Texas Library Directory Database



- Enables local library presence
- Enables various groupings of the information resources for search and retrieval
- Provides information about participating libraries
- Provides a mechanism for maintaining the library directory database

ISO 2146



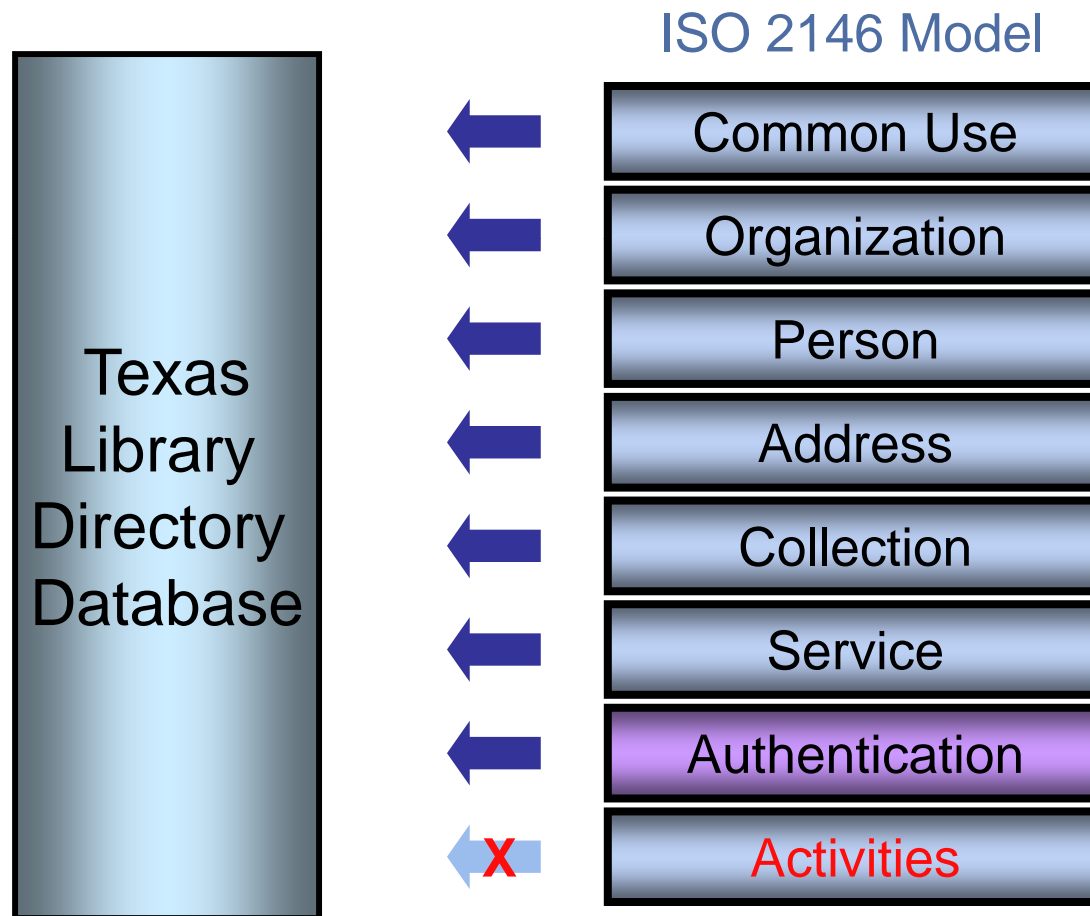
- ISO/TC46/SC4 Technical Interoperability, Working Group 7 Data Elements
- ISO 2146:1988(E). Documentation - directories of Libraries, archives, information and documentation centres, and their databases. Second edition. 1988-07-01
- **ISO 2146 REVISED DATA MODEL**
Committee Draft 1, 2000-05-04

The ISO 2146 Data Model

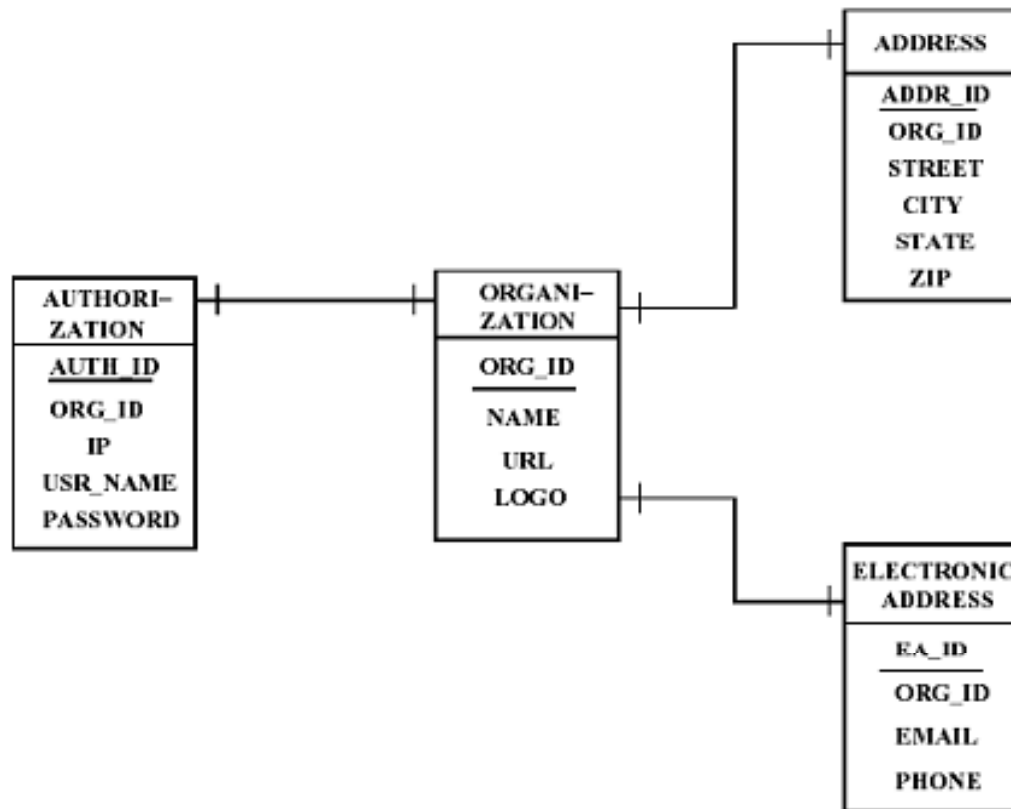


- Supports standardized access to common information about libraries by library applications
- Distinguishes seven information categories, or specific groupings of data elements to hold different types of information related to libraries, their services, and their resources

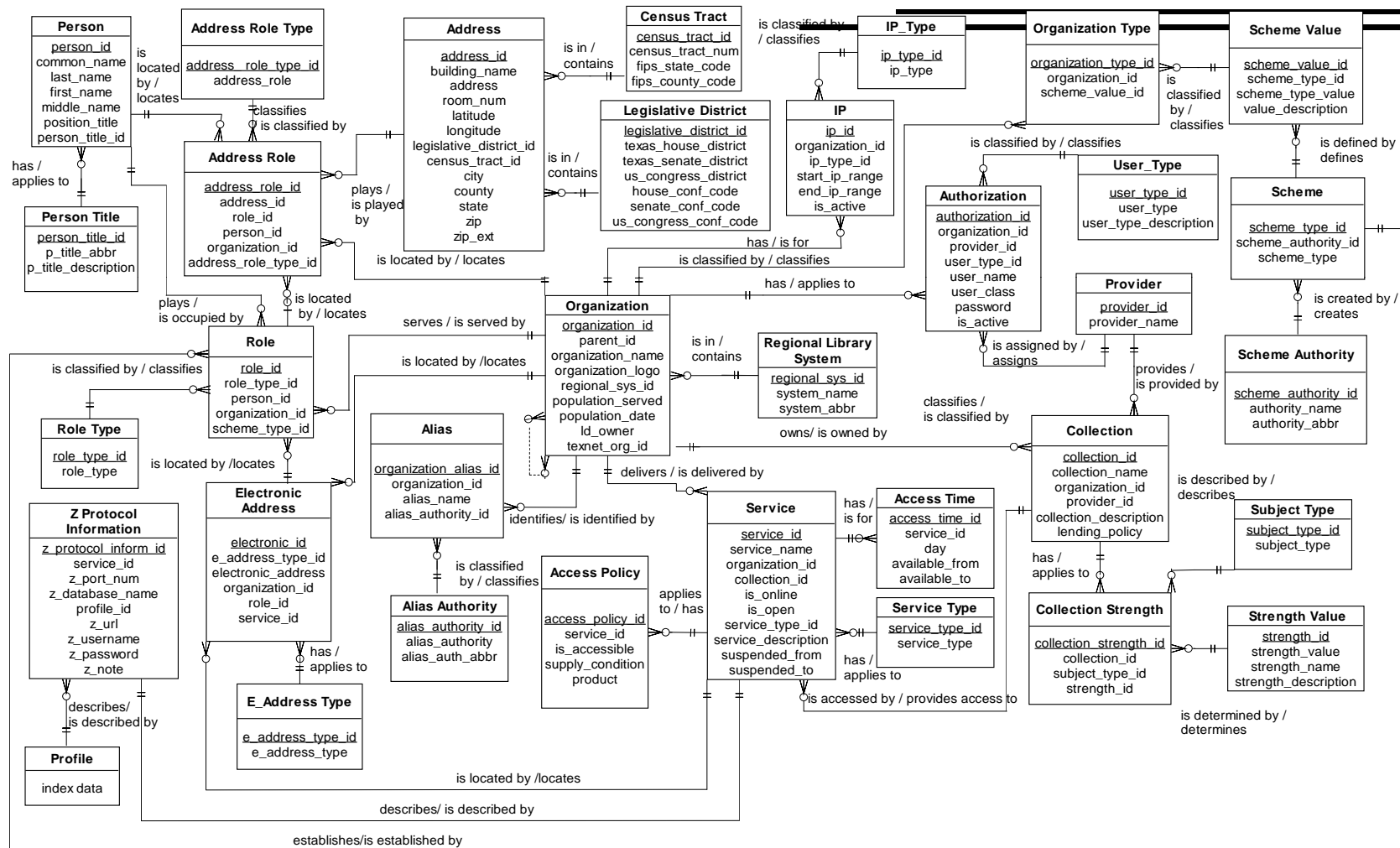
TLDD Information Categories



Initial Entity Relationship Diagram (ERD)



Final ERD



TLDD Challenges



Problems:

- Shortcomings of ISO 2146 model
- Lack of standardized source data
- Multiple owners compromise data accuracy and relevancy

Solutions:

- Extended ISO 2146 model
- Centralized repository
- Multiple interfaces for data input and maintenance

Open Source Platform



- Operating System: Red Hat Linux 7.2
- Web Server: Apache 1.3.3
- Database: MySQL 3.23
- Scripting Language: PHP

Why Open Source?



- Budgetary constraints
- Educational/Research value considering the TxCDK team affiliation with the University of North Texas
- Validation of the free and open source software concept.
- Maturity and reliability

Library of Texas

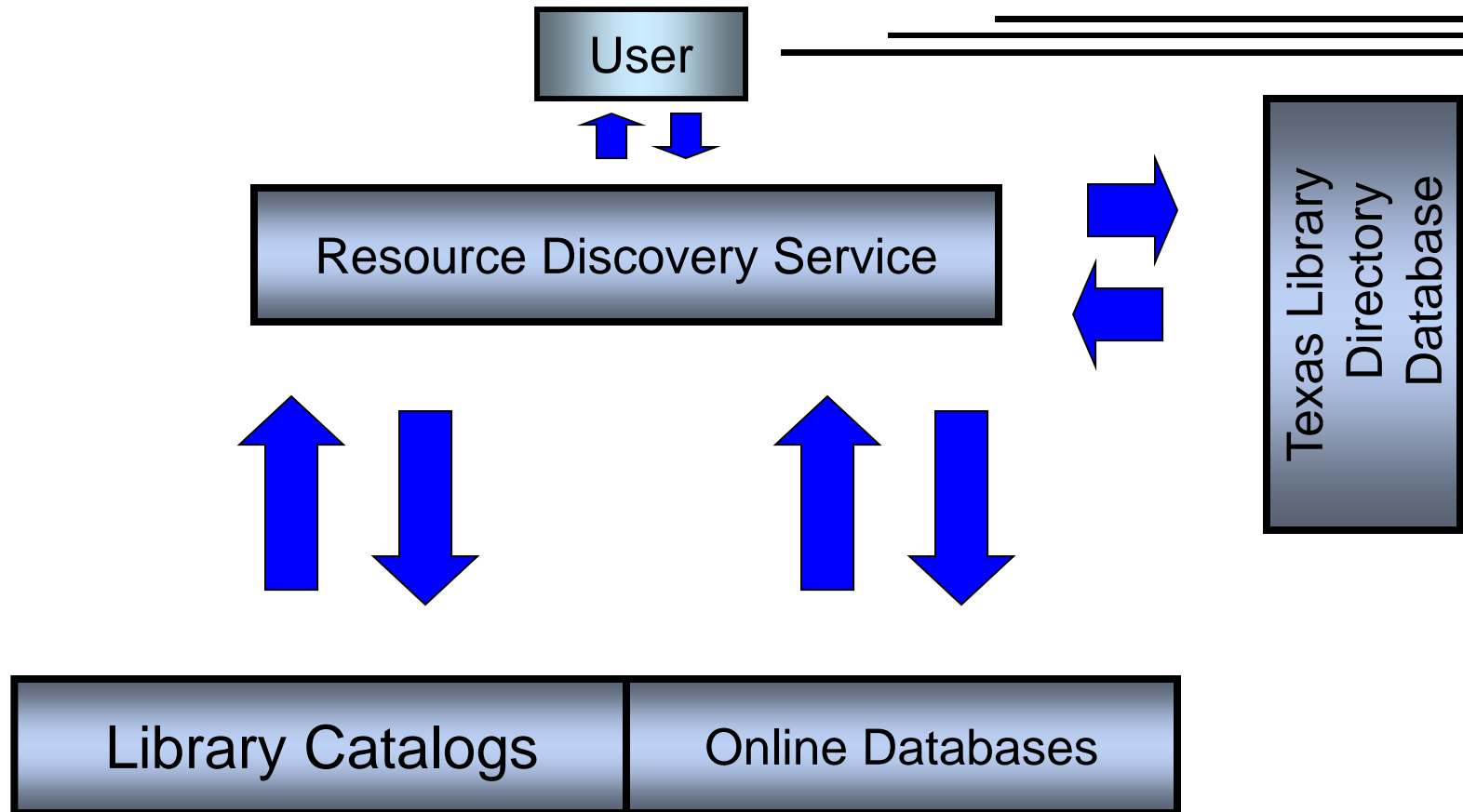


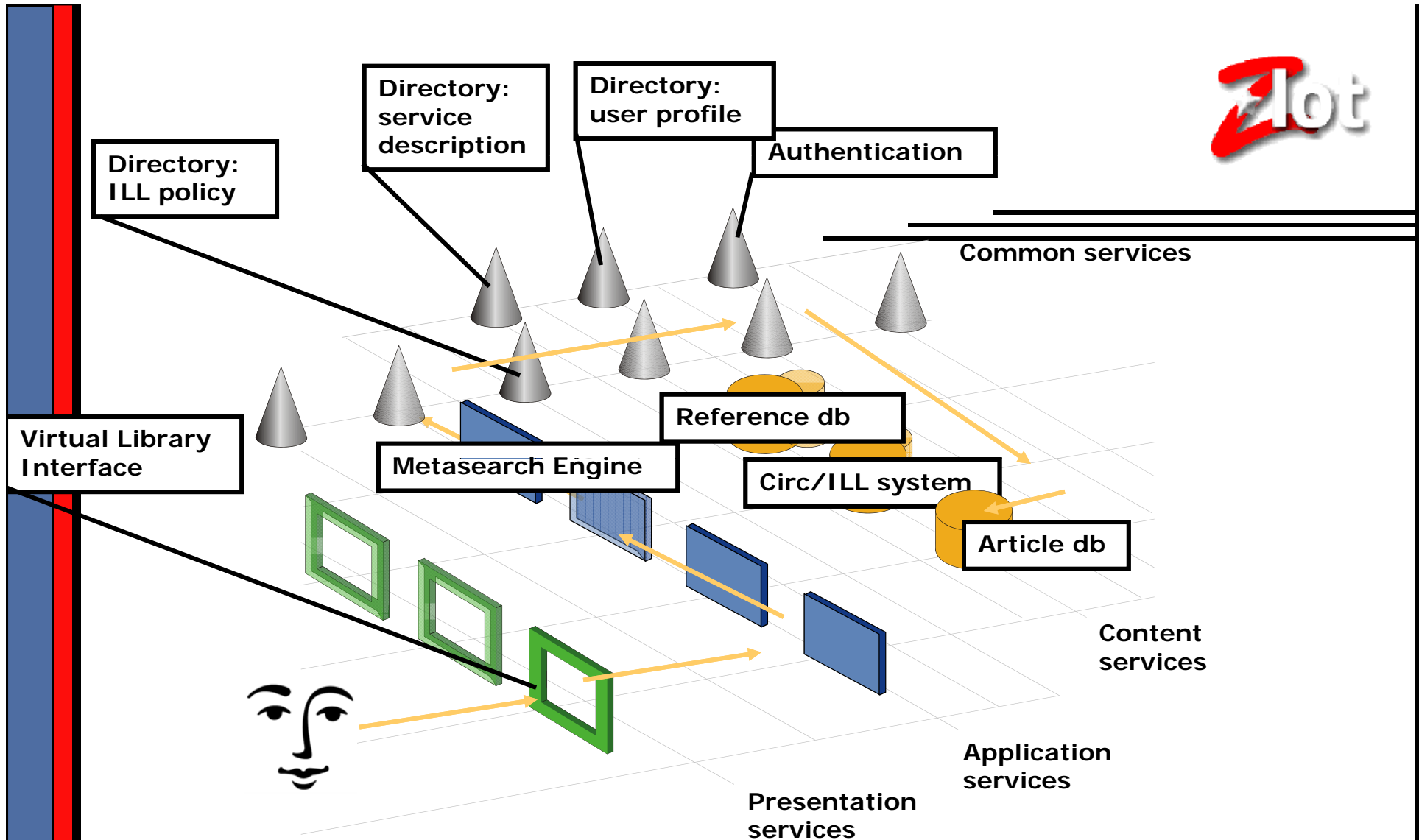
Network Services & Architecture

- Presentation Services → Web Browser
- Application Services → Z39.50
- Common Services → TLDD
- Content Services → Online Databases & Library Catalogs

- This framework based on the U.K. Joint Information Systems Committee (JISC) Information Environment

Resource Discovery Service





Adapted from Dempsey, L., 2004



Subject Areas

- ▶ [Business Information](#)
- ▶ [General Information](#)
- ▶ [History & Genealogy](#)
- ▶ [Homework & Education](#)
- ▶ [Librarian Tools](#)
- ▶ [Literature & Criticism](#)
- ▶ [Medicine & Health](#)
- ▶ [Newspapers & Magazines](#)
- ▶ [Science & Technology](#)
- ▶ [Spanish Materials](#)

Subject Types

Personal settings

- ▶ [Build a group of favorites](#)
- ▶ [See your search history](#)

Search - General Information

Welcome to the Library of Texas! You can:
* **Enter** words in the box to search the resources that are checked below
* **Choose** a subject on the left to see a different group of resources
* **Build** and save your own favorite groups of resources
See the help page for more instructions.

Search

▶ [Advanced search](#)

- ▶ [Un-check all resources](#)
- ▶ [Hide resources](#)

Public Libraries

- [Carrollton Public Library](#)
- [Denton Public Library](#)
- [Farmers Branch - Manske Library](#)
- [Grapevine Public Library](#)
- [Southlake Public Library](#)

Academic Libraries

- [Southern Methodist University](#)
- [Texas Wesleyan University](#)
- [Texas Woman's University](#)
- [The University of Texas at Arlington](#)
- [University of North Texas](#)
- [University of North Texas Health Science Center](#)

Online Resources:

- [Academic Search \(EBSCO\)](#)
- [ArticleFirst \(OCLC\)](#)
- [Funk & Wagnalls Encyclopedia \(EBSCO\)](#)
- [MasterFile Premier \(EBSCO\)](#)
- [MASUltra \(EBSCO\)](#)
- [Middle Search Plus \(EBSCO\)](#)
- [Student Resource Center GOLD \(Gale\)](#)
- [Texas Almanac \(Gale\)](#)
- [Topic Search \(EBSCO\)](#)
- [TRAIL](#)
- [WorldCat \(OCLC\)](#)

Other:

- [Library of Congress](#)

Library Catalogs

Online Databases

Organization Name

UNT Libraries



Home

Resource Name

Clear | Help

Back to [search page](#)

Search in my selected resources:

harry potter

Search

▶ [Advanced search](#)

Searching 6 databases 100% finished

✓		
✓	5973	Academic Search (EBSCO)
✓	49	Carrollton Public Library
÷	-	Denton Public Library
✓	1	Funk & Wagnalls Encyclopedia (EBSCO)
✓	10000	MasterFile Premier (EBSCO)
✓	79	University of North Texas

Subject Areas

- ▶ [Business Information](#)
- ▶ [General Information](#)
- ▶ [History & Genealogy](#)
- ▶ [Homework & Education](#)
- ▶ [Librarian Tools](#)
- ▶ [Literature & Criticism](#)
- ▶ [Medicine & Health](#)
- ▶ [Newspapers & Magazines](#)
- ▶ [Science & Technology](#)
- ▶ [Spanish Materials](#)

Next ▶

Academic Search (EBSCO)

Results 1 - 10 of 5973

- ▶ [ALL SIGNS POINTED TO PEARL HARBOR. - RESOURCES. -](#)
- ▶ [TO Sum Up. -](#)
- ▶ [Historians and the Extent of Slave Ownership in the Southern United States. -](#)
- ▶ [Mark Your Calendar November. -](#)
- ▶ [The Next J.K. Rowling? -](#)
- ▶ [TRIVIAL PURSUITS. -](#)
- ▶ [Who's Reading What? -](#)
- ▶ [RIP, MIX, BRAND. -](#)
- ▶ [Harry Potter's Scotland. -](#)

Returned Records

Selected Resources

Subject Types



Texas State Library and Archives Commission

Jay Velgos - LRS

[Help](#) | [Change Password](#) | [Sign Out](#)

Edit Library Information

Denton Public Library

» **Denton Public Library South Branch (200640)**

Texnet Center : Fort Worth Public Library

[Edit Authorization Info](#) | [Edit TexShare Contact Info](#) | [Edit Other Info](#)

[Home](#)



Edit Authorization Information

**Denton Public Library
» Denton Public Library South Branch**

IP Type	IP Start Range	IP End Range	Active Status	
None <input type="button" value="v"/>	207.64.19.133	207.64.19.138	Yes <input checked="" type="radio"/>	No <input type="radio"/>
None <input type="button" value="v"/>	207.64.19.128		Yes <input checked="" type="radio"/>	No <input type="radio"/>
None <input type="button" value="v"/>	207.64.19.140		Yes <input checked="" type="radio"/>	No <input type="radio"/>
None <input type="button" value="v"/>	207.64.19.142	207.64.19.144	Yes <input checked="" type="radio"/>	No <input type="radio"/>

* To **Delete** record(s), please remove the value(s) in Start IP Range field then hit Update IPs button.

Provider Name: RDS

User Type	Username	Password	Active Status	
None <input type="button" value="v"/>			Yes <input checked="" type="radio"/>	No <input type="radio"/>

Provider Name: EBSCO

User Type	Username	Password	Active Status	
User <input type="button" value="v"/>			Yes <input checked="" type="radio"/>	No <input type="radio"/>
Admin <input type="button" value="v"/>			Yes <input checked="" type="radio"/>	No <input type="radio"/>

Provider Name: GaleGroup

User Type	Username	Password	Active Status	
Admin <input type="button" value="v"/>			Yes <input checked="" type="radio"/>	No <input type="radio"/>

Provider Name: ProQuest/Chadwyck-Healey

User Type	Username	Password	Active Status	
User <input type="button" value="v"/>			Yes <input checked="" type="radio"/>	No <input type="radio"/>

* To **Delete** record(s), please remove the value(s) in Username field then hit Update button.



Collection and Service Information of This Library

Please fill out information for this collection.

(* = Required information)

Library Name:

Denton Public Library South Branch

Collection Name: *

Collection Description:

Lending Policy:

Please input your name: *

Please input your title:

Please input your email: *

Please input your phone number:

Notes to TSLAC:

Subject Type

Indicate collection strength for each subject type.

	Level 0?	Level 1?	Level 2?	Level 3?	Level 4?	Level 5?
Business Information	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
General Info/Miscellaneous	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
History & Genealogy	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Homework & Education	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Librarian Tools & Reference	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Literature & Criticism	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medicine, Health, & Wellness	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Newspapers & Magazines	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Science & Technology	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spanish Language Resources	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please update information for how this collection is accessed.

You can add Service of this Collection here.

Add another access service:

Lessons Learned



- Centralized extensible directory database is good
- Standards-based implementation affects:
 - Reuse of data
 - Repurposing of data
 - Interoperability of data and applications
- Scalable
- Too complex for high-performance use
- XML and SOAP based Web Services

References



- Dempsey, L. (2004). Interoperability: the value of recombinant potential. Presentation at ARLIS 2004, New York, April 2004
<http://www.oclc.org/research/presentations/dempsey/arlis04.ppt>
- The Joint Information Systems Committee (JISC):
http://www.jisc.ac.uk/about_info_env.html
- Investing in the Future: Developing an Online Information Environment: http://www.jisc.ac.uk/index.cfm?name=ie_home
- Information Environment: Development Strategy 2001 – 2005: http://www.jisc.ac.uk/index.cfm?name=strat_ieds0105_draft2
- JISC Information Environment Architecture:
<http://www.ukoln.ac.uk/distributed-systems/jisc-ie/arch/>



Library Of Texas

<<http://www.tsl.state.tx.us/lot>>

Resource Discovery Service

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

ZLOT Project

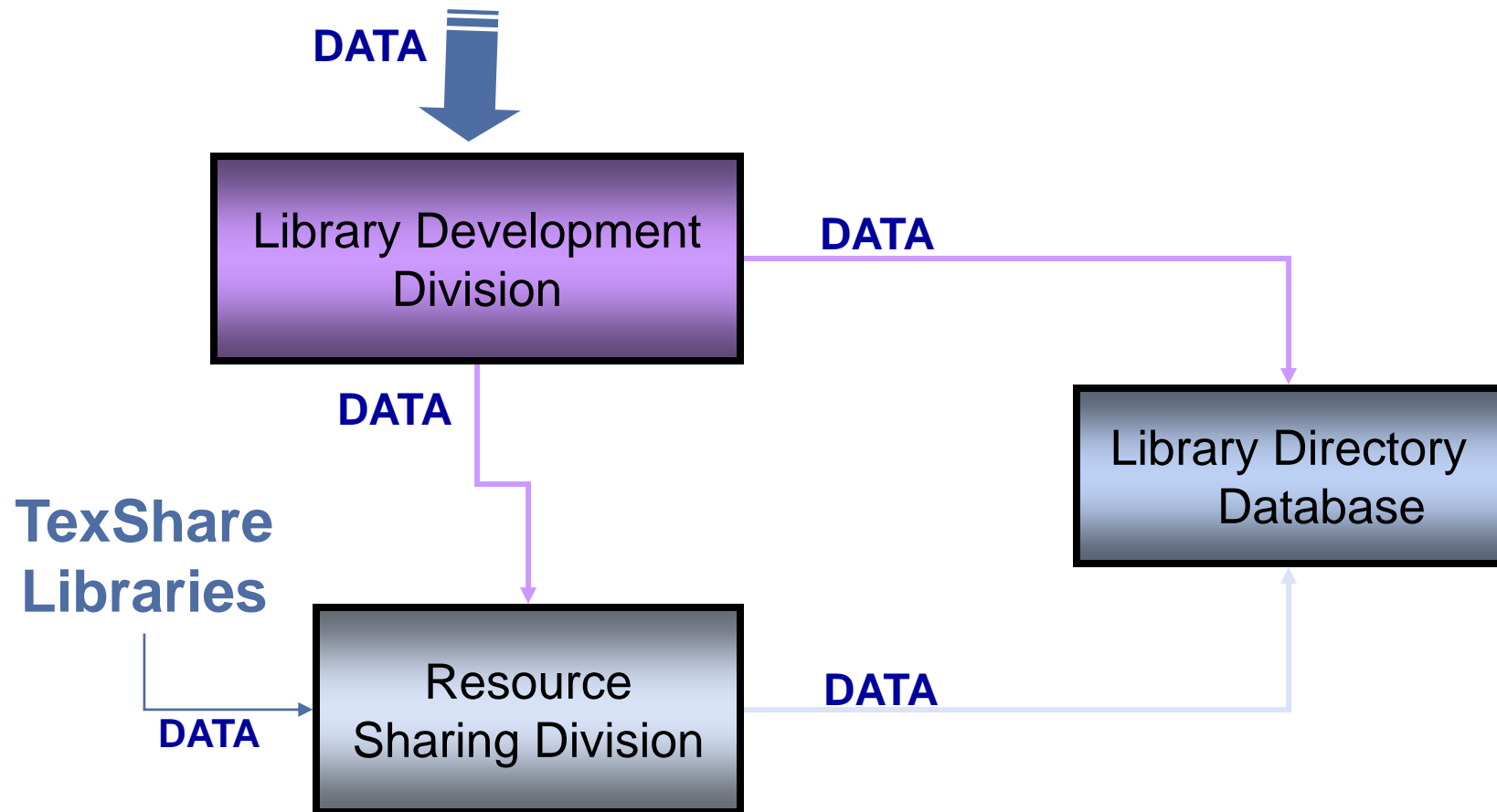
<<http://www.unt.edu/zlot/>>

Texas Center for Digital Knowledge

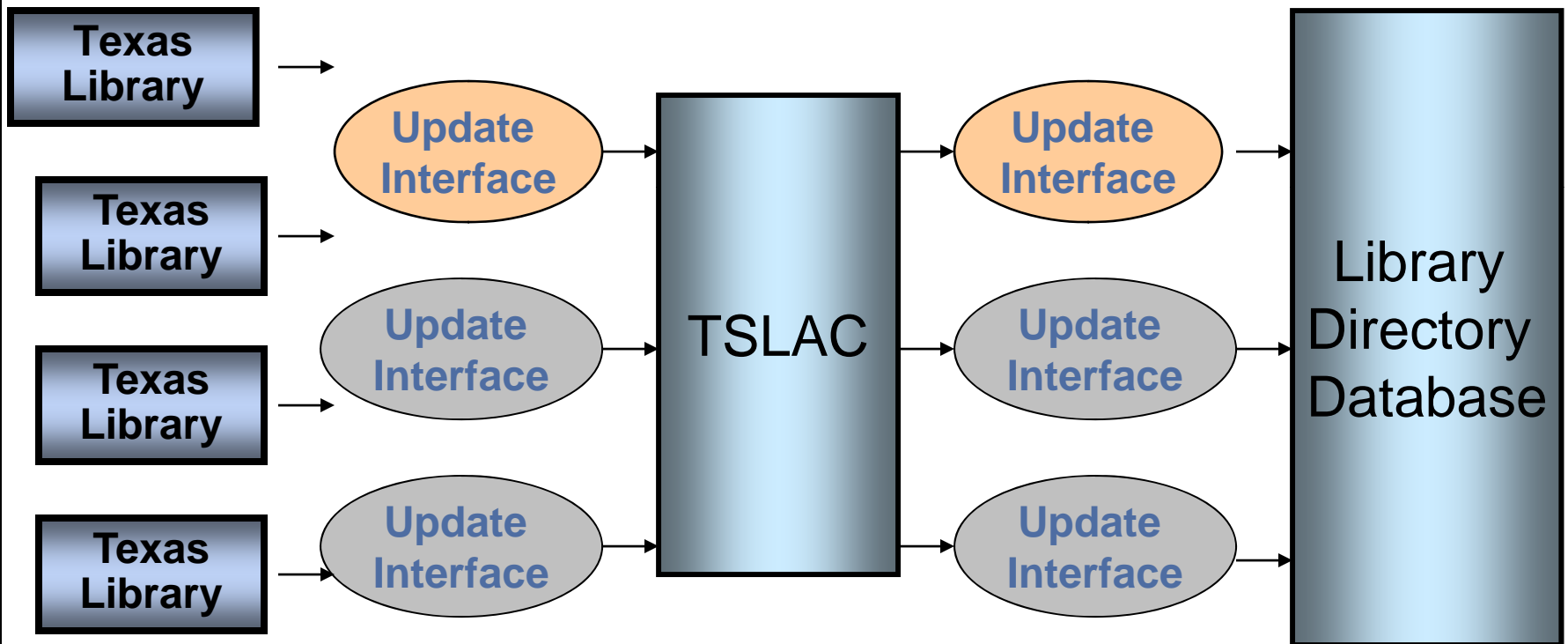
<<http://www.txcdk.org/>>

LDD Data Sources

Texas Libraries



LDD Update Procedure



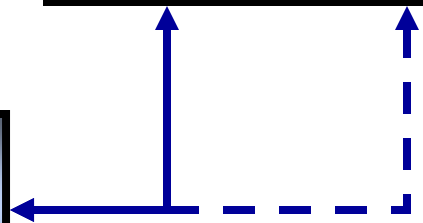
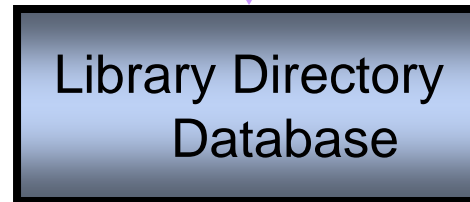
LDD Application



Texas Libraries



TexShare Libraries



Future Applications