OCLC PICA
Working Group on Protocol Requirements: Search & Retrieve

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– Evolution of Z39.50; Inherits best bits
– More extensible than Z39.50
  • Access points, data schemas, extra data
  • Extendable operations
– Industry standard platform – HTTP; web services
  • Easier fit with other developments
  • Easier to find developers
  • Less to maintain and optimize
  • Fewer firewall problems
– Simplicity
  • People don’t need a diploma to start
– Performance
  • SRU re-uses data in cache – less load on server
– Cross Domain interoperability
  • Easier to promote
Keeps best bits of Z39.50

- Abstract indexes
  - DC
  - Bath profile mapped
- Precise searching
- Result set concept
- Improves Explain – machine configurable
  - really
- Extensibility
  - better: other info at message & record level
Zed’s best bits continued ✌️ ✌️ ✌️

- **Multi-target searching**
  - One user interface; one search
  - different platforms (UNIX, NT, IBM etc.)
  - different database systems (relational, network)
  - different database models
- **Searching based on abstract concepts**
  - “Title”, i.e. not database columns
- **Can combine results from diverse databases**
  - Common record syntax (XML; in Z39.50 is ISO 2709)
- **Reuse of results**
- **Facilitates follow on delivery – electronic & physical**
Main Differences from Z39.50

• “Stateless” and “connection-less”, with continuity maintained by:
  – result set (server named)
  – Authentication token
• Only one database
• Only one record syntax & encoding – XML (not ASN.1)
• CQL (CCL inspired) not RPN
• Explain – XML document (eye & machine readable)
More Differences

- Search & present use same request mechanism
- Services:
  - Search
  - Sort (part of search request)
  - Scan (v. 1.1)
  - Explain
When to stay with Zed

• No problems with firewall
• System needs zero maintenance / enhancements / optimization
• System needs no new targets or clients
• System needs no external interoperation with dissimilar systems and portals

http://herbie.bl.uk:9080/cgi-bin/multi_2.cgi

http://greta.pica.nl:1080/sru/?query=dc.creator+%3d+"frank"+and+dc.date+%3d+"1986"&recSchema=dc
Implementations

- TEL*
- OCLC PICA*
- ONESAC
- BIBSYS
- LC
- OCLC – OR – IMS

* Test server

- Low cost
- Technically compatibility
- Compatibility with TEL
- Easier; want to promote
- YAZ facilitates
- Z39.50 not acceptable to IMS
Tools

- Cheshire II – database
- Index Data – gateway to/from Z39.50
- LC – MARC to MARCXML
- CQL parsing tools
- Explain stylesheet
- SOAP tools are SRW tools
- Browsers are SRU tools
- Portlet?
**SRW** WEB service
- HTTP POST, SOAP wrapper, XML encoding, WSDL
- Client / server (machine to machine)
- For long query strings, complex queries
- For protected servers

**SRU**
- HTTP GET (URL) with XSLT
- thin client – (browser to machine)
- Full function but simple implementation & take up Simple
- URLs for documents, browser bookmarks
  - Mozilla: saved URL, multiple search, tab presentations from multiple servers
ELAG Recommendation - Update

For: simple update of a record from a result set, addition of holdings, addition of links, annotations, reviews, etc.

• UCP as Z39.50 extended service – too complicated to implement; *so*
  – Limit to online only; single record
  – Inherit from UCP:
    • Data structures, diagnostics, version control
  – Separate operations for insert, modification, delete
  – Fetch record command

• Make into SRW / SRU operations or make new protocol SRW inspired
Other ELAG recommendations

- More examples on web site
- New tool for automatic generation of explain record (Bill to provide.....)
- Link to Collection Level Description from within the explain record
- XHTML as an option instead of XSLT (for browsers without XSLT capability)
Thank you.