Multi-interoperable CRIS repository

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Current Research Information Systems, 2014

Outline

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CRIS systems and other systems

- CRIS is meant for processing all relevant entities of research domain
  - Number of CRISs
  - Number of published scientific-research results stored in CRISs
- Other systems for storing metadata about published scientific-research results
  - Library information systems
  - Institutional repositories
  - Digital libraries
  - Information systems of publishing activity

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- Related works about the importance of scientific-research results visibility
- Knowledge-based society
- Dissemination of scientific-research results
  - development of science
  - rating of authors
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- Metadata entered in various systems by researchers or by librarians
- Hard job
- Error-prone job

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Our approach

- Migration of data about scientific-research results from CRISs to various systems will increase visibility of those results
- A module for data export from CRISs should support various protocols and metadata standardized formats
- The module should have open architecture

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- Implemented using Java platform and set of open-source libraries
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- Facilitates export of scientific-research results metadata from CRISs
- Architecture is extensible with plugins for supporting various protocols and metadata formats

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Scientific-research results in CRIS UNS

- Over 3000 researchers
- 14 faculties that belong to the University of Novi Sad
- Over 20000 published results, 3500 of which are PhD dissertations
- Over 7000 scientific conferences
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  - Response creator
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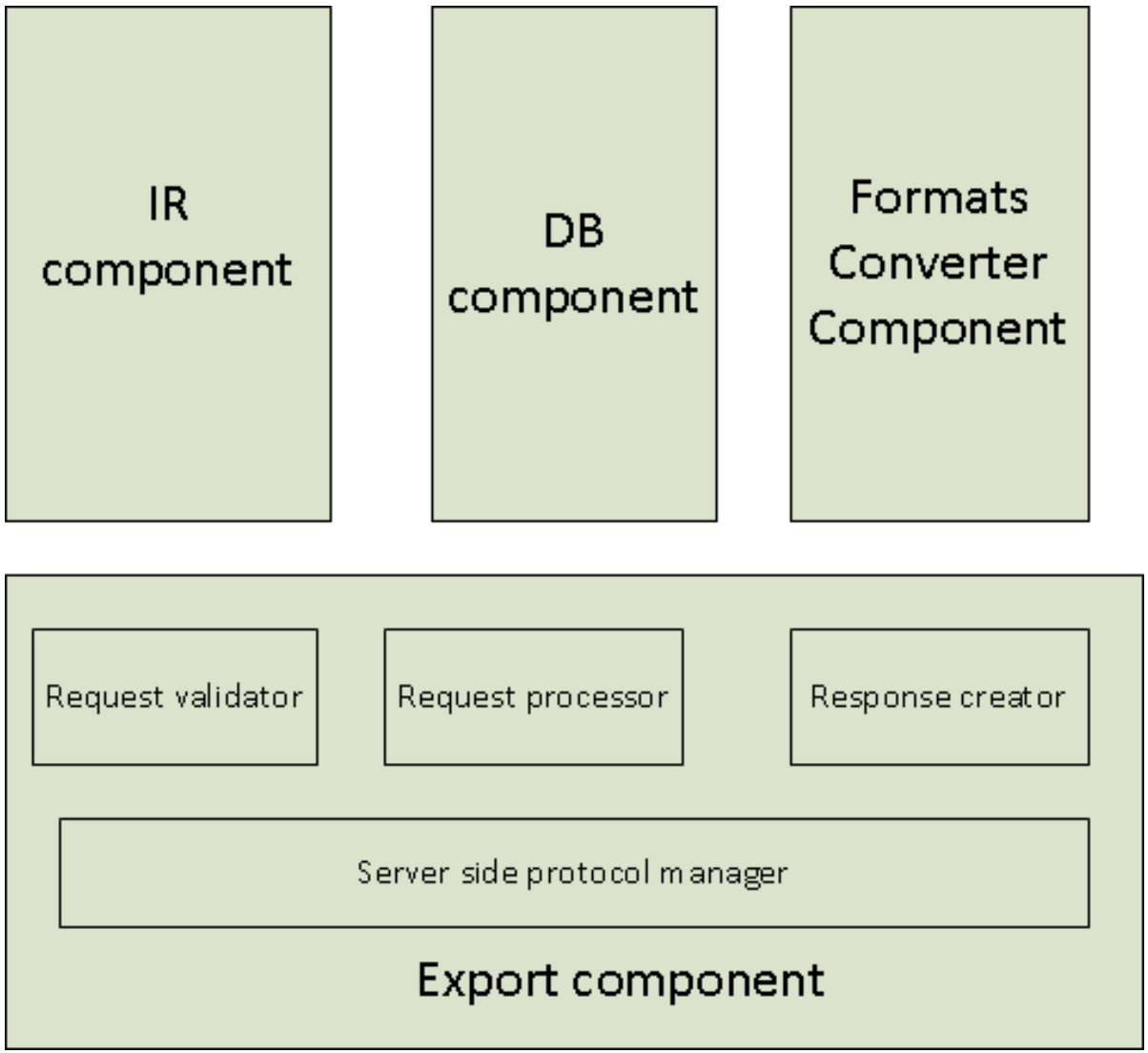

Request validator

- Checking syntax of request
- Validation of provided parameters
- The syntax of request
  - XML Scheme
  - ontology
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- Invocation appropriate services of other layers of a CRIS system
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Server side protocol manager

- Coordinates whole export data process
  - Invokes an appropriate class method belonging to Request validator component
  - If validation of request is successfully passed, invokes an appropriate class method from Request processor component which retrieves a set of CERIF entities which should be exported
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  - OAI-PMH protocol
  - SRU protocol
  - an XML non-standardized protocol for the needs of central repository of Autonomous province of Vojvodina

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OAI-PMH

- A client-server protocol for exchanging the data in numerous formats
- CRIS UNS supports CERIF, Dublin Core, MARC 21 and ETD-MS
- The *OAICat* library is used for implementation
- CRIS UNS is a member of *DART-Europe*, *OpenAIRE+* and *OATD* networks.

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- An XML-based search protocol for Internet search queries, utilizing Contextual Query Language (CQL) - a standard syntax for representing queries
- The new CQL profile named CRIS was defined
- The implementation is in progress and is planned to be put into operation in the summer of this year
- The component is integrated in the *Exporter* architecture
- *SRU validator* for validating a CQL query, *SRU mediator* for processing a CQL query and *SRU response creator* for formatting response to a format requested by a SRU client

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Questions

- Thank you for your attention!!!
- If you have any questions, please do not hesitate to
  - ask me now
  - ask me during the conference
  - contact me via email dragan.ivanovic@uns.ac.rs