

Data Portal Version 3

Query & Reply Web Service

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Data Portal - Query & Reply Web Service

1. DESCRIPTION

The Query and Reply Module handles requests to search one or more metadata archives simultaneously. For example, a user may request metadata on organic chemistry from the BADC and the MPIM facilities. The following search parameters, used in conjunction, are currently supported:

Search Parameter	Example
Facilities	BADC (The British Atmospheric Data Centre) and MPIM (Max-Planck Institute for Meteorology)
Discipline	Chemistry/bio chemistry/organic chemistry

2. WEB SERVICES OFFERED

doBasicQuery(facilityList, discipline)

Request to search the metadata archives in the facilityList where discipline is the search parameter

2.1 Services that use the Query and Reply services

The following modules call the Query and Reply's services:

- Web Interface uses doBasicQuery()
- Outside Services use doBasicQuery()

2.2 Services that the Query and Reply module calls

The Query and Reply module calls the following services:

- Lookup: LookupEndpoint()
- XML Wrapper(s): getXML()
- Session Manager: getPermissions()

3. USE CASES

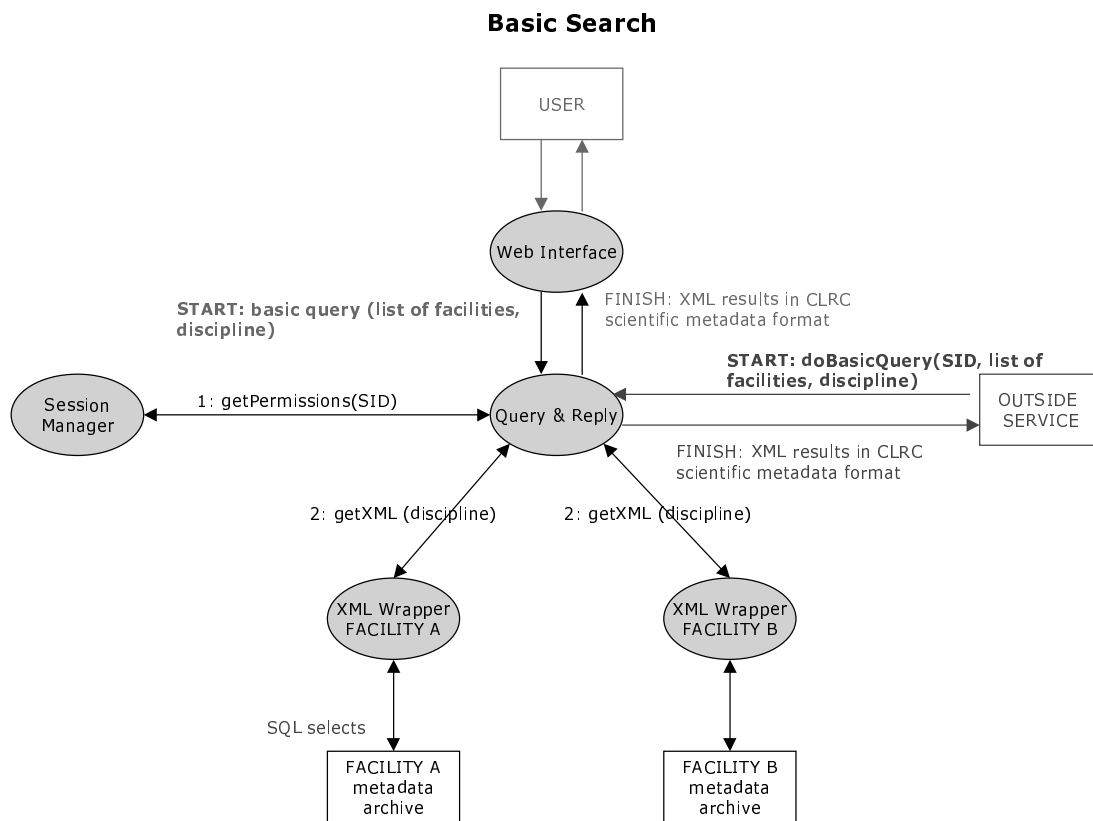


Figure 1 Basic Search through Browser or Outside Service

3.1 Basic Search through Browser or Outside Service

User has already logged on and is authenticated, using a standard web browser. Then user has requested a basic search and chosen one or more facilities and a discipline and pressed submit. The Web Interface handles the request and then calls `doBasicQuery(SID, facilityList, discipline)`. Note that the user can only select facilities that he has access to since the Web Interface has already determined these following login.

If an Outside Service has requested a basic search it must first have called Authentication and Authorisation to login and receive a SID (Session Identifier). The `doBasicQuery` service may then be called in the normal way.

1. See if the user has access to facilities requested

The Query & Reply requests the user's permissions to check that the user has access to the facilities in the list of facilities requested (`SessionManager: getPermissions`). If a user has no access to a facility then no query is sent to the XML Wrapper for that

facility. Other permissions are returned by the Session Manager but are ignored at present, that is, Read Access to Metadata and Read Access to Data for a particular facility. See Session Manager Web Service documentation for the format of the Permissions xml document.

2. Get the addresses of the XML Wrappers

The module then requests the addresses of the XML Wrappers from the lookup module using the service lookup(facilityList, serviceType).

3. Query the XML Wrappers - getXML(discipline)

The Query & Reply sends the discipline to the XML Wrapper for each facility simultaneously. It waits for a configurable number of seconds for the reply in XML that represents the results from the remote metadata archive relating to the discipline chosen. Once all the replies are received (or timed out), they are collated into a single document. The format of the replies from the wrappers and the final document is the CLRC Scientific Metadata Format.

The final xml document is returned to the calling service. See [final.xml](#) for an example of this.

4. DATABASE TABLES

None.