

# SRU

## See also: Our SRU Server

The facts as we know them:

- **SRU** (Search/Retrieve via URL) is a URL-based system for communication between information retrieval systems. SRU is based on Z39.50, but removes a lot of the old baggage that no one was using. If any of the old stuff is needed, it can be implemented as a separate web service. This is *just* search and retrieve.
- **SRW** (Search/Retrieve Web Service) is being renamed "SRU via SOAP".
- **CQL** is the query language used by SRU. (Contextual Query Language)
- All of the above used to fall under the set of standards called **ZiNG** (Z39.50 International: Next Generation), but they are now all being renamed SRU. (Although the SRU XML objects still use the SRW namespace.)

[A list of OCLC's SRU servers.](#)

It is very easy to write basic SRU implementations. SOAP toolkits can use a WSDL description to generate protocol code. Then all we have to do is implement the single client or server SRU method, which translates your query format into an CQL query (client) or a CLQ query into your database query (server).

## CQL

CQL allows you to specify the format of the result set (Dublin Core, MARCXML, etc.). All servers must support Dublin Core and the SRUDiagnostics format.

The query can be a list of attribute-value pairs, or a chunk of XML.

CQL makes a distinction between string search (exact match of a string) and keyword search (finding all words of a string somewhere in the document).

## Bibliographic (MODS-like) searching

[Bibliographic searching](#) is currently at the proposal stage.

## SRU Results

The result set can contain state-preserving information, like the original query or an IP address, for use with lightweight clients.

Records in the result set are encoded as strings, with angle brackets escaped. This doesn't work very well for completely browser-based clients using SRU, since you lose the ability to apply XPath statements to returned records. This problem will be addressed in a future version.

Servers can/should retain result sets, so they can be referenced later, especially when the client is asking for multiple pages from a set. A good way to force the server to keep a result set is to "touch" it with the client, and refresh the time.

## Misc SRU info

Authentication/encryption is not built into the protocol, and must be addressed at a higher level. (See general web services literature.)

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Comparison to other systems:

- Xquery is based on knowing the structure of the data being searched. It doesn't work well for general-purpose searches.
- SDLIP is complex, doesn't have a query language
- DASL is linked to SQL, but pretty good
- Z39.50 is complex and fragile
- OpenURL is focused more on location of a known item, while SRU is focused on searching for a list of items that may meet a user's needs. OpenURL requests result in the user "going somewhere", whether to a service provider's web page, an online copy of the requested item, or a "not available" page. SRU requests result in an XML document that contains metadata about the requested item(s).