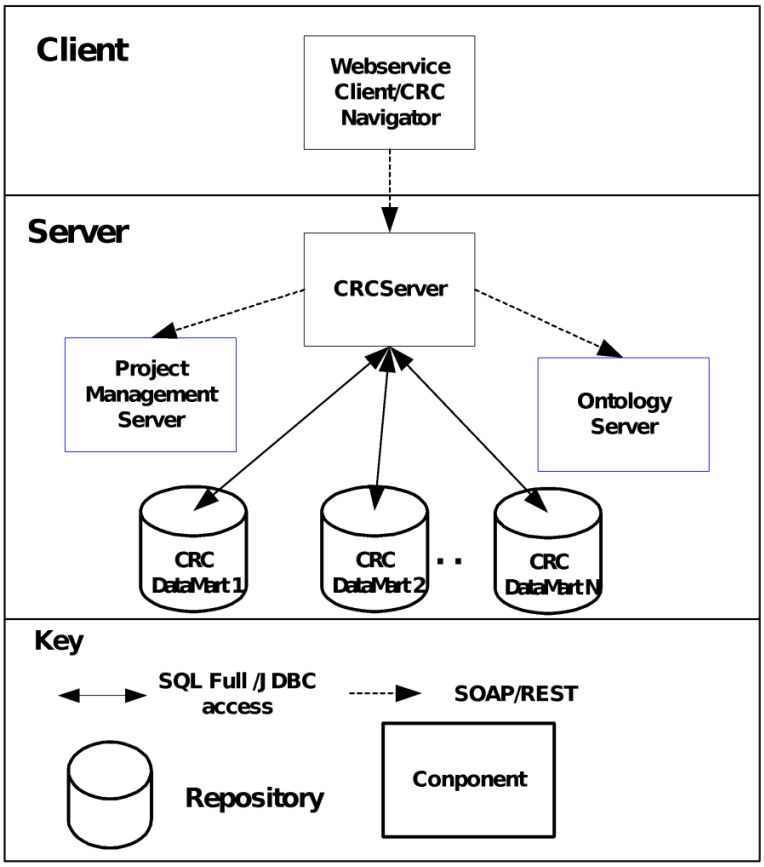
Client-Server View

The CRC system is represented using the C&C Client-Server view.

Primary Presentation



Element Catalog

Elements and their Properties

The properties of CRC cell elements are:

- *Element Name:* listed in the table shown below.
- *Type:* whether the element is a data repository, a data accessor, a communication method, a query, a client or a server component.
- A *description* of the element

Element Name	Type	Description
Webservice Client	Client	Webservice client (i2b2 Workbench / Navigator) submits the requests toCRC Server components and renders response XML.
CRC Server	Server	Provides Web Service Interface for the CRC system. It supports both SOAP and REST protocols. It uses Project Management server to handle user authentication. It uses Ontology server to lookup the concepts metadata. Select the CRC data mart based on domain_id, project_id and user_id It stores Setfinder query definition, query run instance and the corresponding query results. The user can then request Patient Data Object using the Setfinder results.

Project Management Server	Server	CRC cell uses the Project Management cell to authenticate the user. The CRC cell constructs PM Cell request message and makes a web service call to Project Management Cell.
Ontology Server	Server	CRC sends web service requests to the Ontology cell to get metadata information about an Observation fact's concepts.
CRC Data mart DB	Data Repository	This repository is mainly a data mart for patient's clinical observation information represented in star schema. The server supports multiple data marts; the data marts are selected based on the domain_id, project_id and user_id combination. This database also holds CRC user queries (setfinder query) information and its results like patient sets, etc.
Full SQL	Query Connector	SQL query used as a connector between the CRC System and the CRC Datamart DB.
Web Service	Request Connector	SOAP or REST request used to communicate with the external system.

Relations and their Properties

The relation of this C&C view is *attachment*, dictating how components and connectors are attached to each other. The relations are as shown in the primary presentation section; there are no additional ones.

Design Rationale, Constraints

N-tier Architecture
The client-server style depicts the n-tier architecture that separates presentation layer from business logic and data access layer; thus providing for a high degree of portability through the application of the principle of Separation of Concerns.