

Toward an Interoperable and Ubiquitous Web Service Framework for Life Science Application

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The field of life science applications is characterized by a rapid pace of change in the way biological data is acquired, stored and retrieved. Databases will evolve and formats will change if new requirements for the data models are recognized. New databases come along while others are no longer actively curated or no longer available. Further, the usage of the biological data, i.e. which biological methods and applications are executed, is strongly depending on the current user's demands and research topics. All this prevents stable formats and standards in terms of data access, methods, and interfaces. To face these demands a dynamic adaptable software solution is needed. On this account we propose a framework which is based on web services, mediators, and ontologies in order to address these highly dynamics and heterogeneities. These techniques are evolving topics in several fields of computer science. The IRIS-COBIDS platform employs techniques for interoperation and access of loosely coupled biological web components. It encompass a dynamic adaptable client platform and a flexible web service infrastructure which is currently under development.