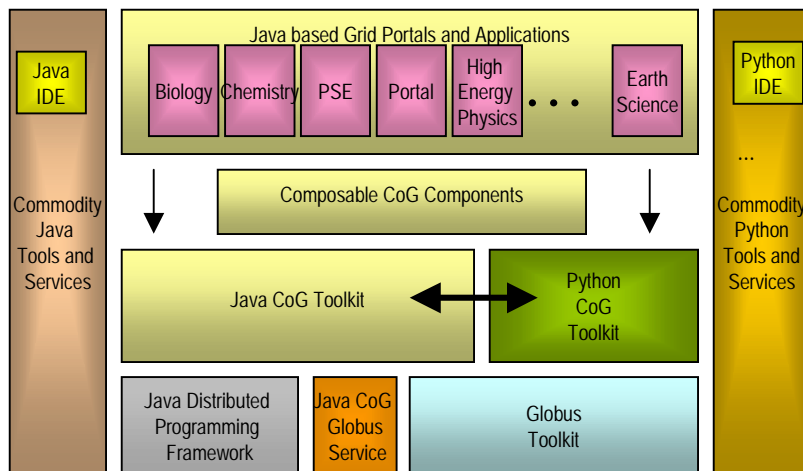




# SciDAC CoG Kits



## MICS/SciDAC Program Name



## The Novel Ideas

- Develop a common set of reusable components for accessing Grid services.
- Focus on supporting the rapid development of Science Portals, Problem Solving Environments, and science applications that access Grid resources.
- Develop and deploy a set of "Web Services" that access underlying Grid services.
  - Integrate the Grid Security Infrastructure (GSI) into the "Web Services" model.
  - Provide access to higher level Grid services that are language independent and are described via commodity Web technologies such as WSDL..

## Impact and Connections

### IMPACT.

- Allow application developers to make use of Grid services from higher-level frameworks such as Java and Python.
- Easier development of advanced Grid services.
- Easier and more rapid application development.
- Encourage code reuse, and avoid duplication of effort amongst the collaboratory projects.
- Encourage the reuse of Web Services as part of the Grids.

**CONNECTIONS:** We are working closely or as part of with the Globus research project, we work with a variety of major funded applications through SciDAC, NSF, en EU grants, E.g. DOE Science Grid, Earth Systems Grid, Supernova Factory, NASA IPG.

## Milestones/Dates/Status

- The main goal of this project is to create Software Development Kits in both Java and Python that allow easy access to Grid services.
- Provide access to basic Grid services:
 

- GRAM, MDS, Security, GridFTP	Year 1
- Replica Catalog, co-scheduling	1&2
- Composable Components:
 

- Develop guidelines for component development	1
- Design and implement component hierarchies	1&2
- Develop a component repository	2&3
- Web Services:
 

- Integrate GSI	1
- Develop an initial set of useful web services	1&2

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