Web Services: A Mechanism for Across-the-Internet On-Demand Computing and Communication

AGENDA
Wednesday, June 8, 2005, 9 AM - 5 PM

Objectives: What are web services and why do we want/need them?
Target audience: Scientists, project coordinators/administrators, students.

INTRODUCTIONS

* Why use distributed (remote) computing in contrast to local computing?  Advantages offered by across-the-Internet on-demand computing (such as access to compute resources, commonality of codes, code updates, access to evolving databases and data archives maintained elsewhere).

* Design factors for across-the-Internet services based on application.  Current methods (applets, php, simple database access) versus new methods.  What are client-side and server-side components and what do they do?

* Overview of four primary distributed methods: servlets, CORBA, java-RMI, web services.  What do they do, how do they work, what applications are they better suited to do?  Examples.

WEB SERVICES

* What is a Web Service - an earth scientist's view.  What is a web service and what can it do for us in the geosciences?  Examples of web services versus other distributed access methods.

* What is a Web Service - an IT view.  what is a web service and how does one work.  Introduction of key ideas regarding clients & servers, across-the-Internet communication, security.  GUIs and wrapping legacy codes.  Needed resources to make and host one. Future directions.

SUMMARIES/EXAMPLES

* Examples: Geoinformatics and IT research projects which use both web services and other distributed computing methods.