

SEEK - Bug #1040

set up registry service for ecogrid

04/15/2003 09:31 AM - Matt Jones

Status:	Resolved	Start date:	04/15/2003
Priority:	Immediate	Due date:	
Assignee:	Rod Spears	% Done:	0%
Category:	ecogrid	Estimated time:	0.00 hour
Target version:	ecogrid-1.0.0beta1	Spent time:	0.00 hour
Bugzilla-Id:	1040		
Description			
Review possible registry implementations - UDDI, LDAP, Globus, ...			
Experiment with a simple implementation * http://www.systinet.com/products/wasp_uddi/overview * jUDDI (http://www.juddi.org/ , was built by bowstreet.com now appears to be SF project) * http://www.themindelectric.com/glue/index.html (supports LDAP authentication)			
Install one of these for testing.			
Target deadline: April 18			
Related issues:			
Is duplicate of SEEK - Bug #1061: create EcoGrid registry service		Resolved	05/19/2003
Blocks SEEK - Bug #1165: define wsdl interface for registry		Resolved	09/26/2003
Blocks SEEK - Bug #1166: create a schema for registry metadata		In Progress	09/26/2003
Blocks SEEK - Bug #1167: write serviceData schema for ecogrid query services		Resolved	09/26/2003

History

#1 - 05/04/2003 10:03 PM - Jing Tao

Set up JWSDP in my local machine - pine. But JWSDP come with a tomcat two. Now I am figuring that put the two tomcats into one apache server in dev machines.

#2 - 05/06/2003 09:28 AM - Jing Tao

Set up another UDDI server - WASP. It has a friend web interface and user can use it to register, publish and find business, service, binding template and TModel. It also has a client package and developer can use it to access the server. However, it is only testing and evaluation version.

The url is <http://pine.nceas.ucsb.edu:8080>

#3 - 05/07/2003 12:02 PM - Jing Tao

Wrote a client program using GLUE standard library(free) to search IBM and Microsoft testing uddi registry. In Microsoft, I registered a TModel named EcoGridAPI. Then I registered a service named metacat which bound EcoGridAPI in business NCEAS. And I registered another service named morpho which bund EcoGridAPI in business UCSB. Given the EcodGridAPI key, the program can find both of them.

I sent an email to IMB to ask why user ouldn't add a service into a business. I just got a general reply which said to forward the email to the webmaster. But I still tried to search IMB UDDI test server by given a TModel key. The result is nothing found - that is what we want, i didn't bind it to any service.

Now I am working on JWSDP lib to write the program. The API of GLUE is much more friend than JWSDP and it is free too. But I know, JWSDP is standard.

#4 - 05/19/2003 12:54 PM - Matt Jones

Decided that UDDI was probably overkill for what it provides, and that instead we might be better served with a simple XML document that is stored in an XML database, or, if feasible, install the Grid Registry service.

Who: Matt
Target: June 2

#5 - 09/26/2003 03:06 PM - Matt Jones

Agreed to pursue the OGSA service based registry approach to integrate it with the rest of the OGSA stuff we are doing. So... need to implement the registry operations that will be defined in bug 1165 using some of our existing systems. As metacat can already store arbitrary XML documents, Matt agreed to start with an implementation of it there. Raja also is going to look into doing this with the Sleepycat XML database.

#6 - 03/17/2004 03:09 PM - Matt Jones

Rod,

Here's the description of the registry backend that I promised on the phone today. Using the EcoGrid Query API will allow us to switch around the backend if we desire, but as we discussed it will be pretty simple to use Metacat to store the XML documents that constitute the registry information. For now, because we don't have an EcoGrid write API defined yet, you can use the Metacat-specific client library described below to write to the Metacat.

Metacat Client

Update your CVS version of the metacat module, and make sure you have an updated copy of the utilities module as well. With those in place, you should be able to type "ant clientjar" and build the metacat client. This will produce metacat-client.jar and utilities.jar and httpclient.jar -- putting these in your classpath will allow you to access metacat from any java program. There are some detailed examples of using the API in the JUnit tests that I wrote (see metacat/test/edu/ucsb/nceas/metacattest/client/MetacatClientTest.java). For the common cases you'll need of inserting, updating, and deleting registry documents, it boils down to this (lots of exception handling not shown):

```
String testdocument = "<?xml
version='1.0'?><some><random><xmldoc>hi</xmldoc></some></random>";
Metacat m = MetacatFactory.createMetacatConnection(metacatUrl);
String identifier = "testid.1.1";
m.login("username", "password");
String response = m.insert(identifier,
new StringReader(testdocument), null);
identifier = "testid.1.2";
String response = m.update(identifier,
new StringReader(testdocument), null);
String response = m.delete(identifier);
```

The response is an XML document itself with either a root node of "<success>" or "<error>" and some messages explaining the result.

Of course, you can use the EcoGrid client API to query the metacat server (or you can use the metacat client "query()" method).

Registry XML document

The registration process should include information found in bug 1166, bug 1165, and bug 1167 and consider the discussion in bug 1040. That said, some of the info that should be included probably includes:

- 1) A GSH endpoint for the service
- 2) A pointer to a WSDL document for the service, or a copy of the WSDL
- 3) A human readable name for the service
- 4) An optional coverage section for the service
-- base this on the EML coverage module, including space, time, taxa
- 5) For data services, an optional estimate of number of data sets (possibly by coverage area)
- 6) For computational services, some optional terms from an analysis classification ontology that describe what the service does (e.g., SpeciesDistributionPredictionModel): see bug 1167

Lets chat about this and revise it when you digest it some.

#7 - 05/25/2004 09:12 AM - Matt Jones

- Bug 1061 has been marked as a duplicate of this bug. ***

#8 - 06/08/2004 04:40 AM - Rod Spears

Initial impl done in with GT3 and Metacat.

Next up: Using the GTw fully

#9 - 02/01/2005 01:18 PM - Rod Spears

Bing has done this already

#10 - 03/27/2013 02:16 PM - Redmine Admin

Original Bugzilla ID was 1040