

Session place: OGF27, Banff, Canada, October 14th, 2009, 10.30 am - 12.00 pm, first session;
1.00 pm - 2.30 pm, second session.

Session name: Remote Instrumentation Services in Grid Environment (RISGE-RG)

Session leader: Marcin Plociennik <marcinp@man.poznan.pl>, PSNC, Poland

First session:

Marcin started with a short overview of the group and the main goals.

Presentation of results of the standard evaluation in identified areas for remote instrumentation.

"Near real time/fast data retrieval and transfer of data/streams" and

"Data handling - getting data out of the instruments" - M. Sutter, F. Davoli

- Data Transport Specification provides useful features - security, real-time and data transport
- OGC already released useful standards, but missing Grid features
- Resource Reservation protocol useful for real-time data transport, but not intended in IP v4
- OPC Unified Architecture useful, but missing Grid features and some of the specifications are under development

"Accessing instruments in a standard way/unique interface" - M. Prica, D. Edgington

- OGC standards are very detailed, but missing security features needed for usage in Grids
- CIMA has a widespread specification, but the development disappeared
- Instrument Element is already an implementation, but not a standard

"Scheduling of the instruments" - J. Watzl

- JSDL for job submission from instruments
- OGSA-BES (Basic Execution Services)
- OGSA-RSS (Resource Selection Services)

"Service Discovery Information" - M. Plociennik

- OGC Catalogue Service
- GLUE schema specification v 1.3 and 2.0
- Number of other commercial standards including SLP, JINI, ...

Summary:

- For real-time purposes the data transport specification seems to be useful, but has to be adapted for usage in Grid environments. However there is no need to work on a new standard, but rather evaluate the possibility to extend existing ones.
- There exists standards for accessing of instruments (OGC), but the evaluation showed that we need to adapt them for usage in Grid environments. We agreed to start the process for establishing a working group at OGF. The group decided to prepare BoF that taking into account Instrument Element, CIMA and OGC as a base and will propose the establishment of a new working group to work on the definition of a standard.
- The evaluation for scheduling of instruments needs further work to be done. There are some first recommendations that the Grid Scheduling standards could be useful, however, any decision will be done after full evaluation.
- The evaluation for service discovery information is also in progress. There exist a lot of standards which are useful and could be used as they are, e.g. OGC Catalogue Service. The group could evaluate in detail if GLUE 2.0 could be used as it is for including instruments, or if extensions are needed. However even from these first results of analysis it is obvious that there are existing complete standards and there is no need to work on new standards.

The group decided to continue their work in parallel to possible working group.

Apply for OGF 28 in Munich to present the missing evaluations. We will start also work on the general document with recommendation on the model instrumentation infrastructure.

Next steps would be to follow work of other groups and introduce the propositions of enhancements that would fulfill remote instrumentation requirements.

Maybe apply for INGRID 2010 (May 2010) to benefit from the focused conference in remote instrumentation and to represent the group. If the BoF will be successful and we will create the working group we could have first meeting of this WG during INGRID.

The group decided also to look for new emerging projects and research in the area and to invite them to group.

An OGC representative joined our session and there was a discussion on possible collaborations. Needs further actions

Second session:

Marcin presented an overview of Remote Instrumentation

- Aims, purposes
- Interesting projects in the field
- Overview of DORII

Several discussions took place on the technical solutions.

During the session there was OGF President Craig Lee present. He suggested us to contact OGC, join there mailing list and start to discuss commonalities. There will be probably OGC workshop in Munich, he suggested giving input from the workshop. RISGE will also try to involve OGC people in the creation of the standard for accessing instruments that will take into account the grid aspects. The appropriate message will be sent also to gOWS group (RISGE participants are also represented). Craig sent an email to OGC to establish a contact.

Link to the presentations:

[OGF27](#)