

Session place: OGF 28, Munich, Germany.

First session March 16th, 2010, 15.00 pm - 16.30 pm.

Session name: OGC/RISGE and Commonalities in standards for Remote instrumentation.

Session leader: David Wallom [david.wallom@oerc.ox.ac.uk](mailto:david.wallom@oerc.ox.ac.uk), Oxford e-Research Centre, United Kingdom.

Second session March 16th, 2010, 17.00 pm - 18.30 pm.

Session name: Remote Instrumentation Services in Grid Environment - standards evaluation

Session leader: Marcin Plociennik [<marcinp@man.poznan.pl>](mailto:marcinp@man.poznan.pl), PSNC, Poland

Third session March 17th, 2010, 10.30 am – 12.00 am.

Session name: Accessing Remote Instruments in grid environment (ARI) – BoF

Session leader: Marcin Plociennik [<marcinp@man.poznan.pl>](mailto:marcinp@man.poznan.pl), PSNC, Poland

### **First session:**

Andrew Woolf started with a presentation about the OGC Sensor Web Enablement (SWE) Working Group.

- The main aims of the OGC Sensor Web Enablement working group are the access to; the discovery of sensors and the processing of data from the sensors
- The SWE standards uses a adapted version of RM-ODP and ISO/IEC 10746 (Open Distributed Processing -- Reference Model Architecture)
- Andrew presented some SWE standards
  - Sensor Model Language (SensorML)
    - Standard model and XML schema for describing sensors
  - Transducer Model Language (TransducerML)
    - Conceptual model and XML schema for describing transducers and supporting real-time streaming of data to and from sensor systems
  - Sensor Observations Service (SOS)
    - Web service interface for requesting, filtering, and retrieving observations and sensor system information
  - Sensor Planning Service (SPS)
    - Web service interface for requesting user-driven acquisitions and observations.

### **Questions:**

Is there a relation between SOS and IEEE 1051?

Yes there is.

Is it possible to use multiple sensors as a clustered sensor with the standards of SWE?

Yes, it is possible, but depends on the requirements of the clustered sensor.

Is there also a management interface description possible with SWE, e.g. for calibration of instruments.

The Sensor Planing Service has parts of it included.

Marcin Plociennik gave a overview of the RISGE-RG

- Overview about remote instrumentation
  - What is it
  - Why is it needed
    - Access to extreme rare and expensive instruments
    - Access to experiments remotely
    - Efficient usage of specialized equipment
- Involved projects in RISGE-RG
- Results of already done standard evaluations

- “Data handling – getting data out of the instruments”
- “Accessing instruments in a standard way/unique interface”
- “Scheduling of the instruments”
- “Service Discovery information”
- “Near real time/fast data retrieval and transfer of data/streams”
- “Way of monitoring instruments”

### **Questions:**

Is the aim of RISGE-RG to include all the standards in one overall standard?

No, such one should be to huge, one main aim of RISGE is to simplify the specification.

Is RISGE willing to include standards already defined by OGF, e.g. for security purposes?

Yes, RISGE want to benefit as much as possible from already existing standard definitions.

David, Andrew and RISGE agreed, that it is possible to have a face to face meeting with the upcoming WG from RISGE-RG in cooperation with OGC during OGF 29 in Chicago. Even if it is not clear at the moment if RISGE-RG or the upcoming WG will be present during OGF 29.

### **Second session:**

Marcin started with a status about the missing standard evaluations:

- “Accounting for instruments instrument health”
- “Calibration (traveling standards)”

We agreed to ask people directly (which already have knowledge about the topics) for evaluating the missing standards. e.g. Franco Davoli for the calibration.

Marcin presented the results for the evaluation of "Accessing instruments in a standard way/unique interface"

Franco presented “Monitoring operations in the context of Remote Instrumentation Services”

- Monitoring is needed for instruments
- There already exists standardization activities
  - OGC SWE
  - IEEE 1541
- Monitoring of the network is necessary in order to access instruments remotely
  - Results of the network monitoring should be used

We agreed to compile the already existing standard evaluations in one document and put it to the OGF editor.

We agreed to push the results of the standard evaluations to other OGF WG.

We discussed the future of the RISGE-RG if the ARI-WG could be successfully established and decided that the RISGE-RG would still exist and meet from time to time on OGF. The main goal of RISGE-RG would be to update the state of art for the standard evaluations.

### **Third session:**

Marcin gave a introduction of the ARI-WG.

- Aims, main idea, why we want to establish the WG
  - To standardize approaches for remote access to instruments

- The initial focus is based on the collected use cases from RISGE-RG

Milan gave a presentation about the Instrument Element

- There already exists specification/implementations for access to instruments using Grid technologies
  - GTC, CIMA, IE
- Features, components of the IE
  - Authorization
  - Multi user support
  - JMS support
  - GridFTP

We started to review the ARI charter based on the comments from the involved partners, but did not completed. We agreed to proceed offline via the mailing list. The current version will be sent on the mailing list.

We agreed that simplicity of the defined services is one main aim of ARI.

We talked about a possible session during OGF 29 in Chicago, but did not yet decided. The decision will be made in the next weeks when we know how many partners would be able to attend at OGF 29.

Link to the presentations:

[OGF28](#)