Contribution ID: **307**   Type: **Sectional reports**

Integration of the BOINC system and additional software packages

Monday 10 September 2018 13:30 (15 minutes)

Currently, the BOINC system [1] is the most well-known voluntary computing system. Many researchers use BOINC to solve scientific problems. The BOINC software allows them to automate the process of sending tasks to the computing node, starting it and returning the results. To solve many scientific problems, the BOINC system requires additional software.

The need for integration of the BOINC system and additional software arises in the following cases:

a) generation of computing tasks on the server side;

b) processing of results on the server side;

c) running additional software components on the side of the compute node;

d) interface for visualization and display of results.

The report considers various aspects of the integration of the BOINC system and additional software. Describes the approaches used for integration. Projects USPEX@HOME [2] and XANSONS4COD@HOME [3] are considered too. The practice of applying standard approaches is discussed and new ideas are proposed.

References

1. D. P. Anderson "BOINC: A system for public-resource computing and storage. In Grid Computing", Proceedings. Fifth IEEE/ACM International Workshop, 4–10 (IEEE, November 2004).

2. Nikolay P. Khrapov, Valery V. Rozen, Artem I. Samtsevich, Mikhail A. Posypkin, Vladimir A. Sukhomlin, Artem R. Oganov. Using virtualization to protect the proprietary material science applications in volunteer computing. Open Eng. 2018, v.8, pp. 57-60.

3. Vladislav S. Neverov, Nikolay P. Khrapov. "XANSONS for COD": a new small BOINC project in crystallography. Open Eng. 2018, v.8, pp. 102-108.

Author: Mr KHRAPOV, Nikolay (Institute for Information Transmission Problems)

Presenter: Mr KHRAPOV, Nikolay (Institute for Information Transmission Problems)

Session Classification: 7. Desktop grid technologies and volunteer computing

Track Classification: 7. Desktop grid technologies and volunteer computing