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Synchrogrid: IT services for Polish Synchrotron operators and users

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Building and bringing into operations the National Synchrotron Radiation Centre „Solaris" is a engineering and organizational challenge. Apart from support of construction work, support for its operations is needed. The operations require not only qualified personnel, but also appropriate IT solutions for its support.

High Performance Computing centers in Poland founded consortium, which main aim is to support polish science with IT solutions in close collaboration with users. The consortium built IT infrastructure, that provides scientists computing and storage. The next step is building services dedicated to scientific domains services. One of identified groups are the synchrotron radiation users.

As the Solaris is in installation phase and will start commissioning soon, services developed so far only indirectly support end users of synchrotron radiation [1]. These services are facilitating everyday operations of Synchrotron by supporting beam scientists and operators with virtual model of the synchrotron for testing synchrotron control software on the computing model [2]

The main need of synchrotron operators and users in first phase of production operation was identified to be storage and management of the data. The PL-Grid infrastructure user will be allowed to store the data from experiment and execute analysis software placed in user area. Additionally, user can use number of scientific applications like Matlab that are available on infrastructure [3].

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[1] T. Szymocha et all., *Services for Synchrotron Deployment and Operation* In: Bubak, M., Kitowski, J., Wiatr, K. (eds.) eScience on Distributed Computing Infrastructure, Achievements of PLGrid Plus. LNCS, vol. 8500, Springer (accepted)

[2] P. Goryl, et al; "An implementation of the virtual accelerator in the Tango control system"; MOSB3; Proceedings of the ICAP2012, Rostock-Warnemünde, Germany (2012)

[3] PL-Grid infrastructure webpage: http://www.plgrid.pl/oferta