Installing and Operating a Grid Infrastructure at DESY

Wednesday 29 September 2004 10:00 (1 minute)

DESY is one of the world-wide leading centers for research with particle
accelerators and a center for research with synchrotron light.
The hadron-electron collider HERA houses four experiments which are taking
data and will be operated until 2006 at least.

The computer center manages a data volumes of order 1 PB and is the home
for around 1000 CPUs.

In 2003 DESY started to set up a Grid infrastructure on site.
Monte Carlo production is the primer HEP application candidate for the Grid
at DESY. The experiments have started major tests.

A first Grid Testbed was based on EDG 1.4.
Some effort was taken to install the binary distribution of the middleware
on SuSE based Linux systems at DESY.
With the first fixed LCG-2 release in spring 2004, the Grid Testbed2 was
installed, which serves as the basis for all further DESY activities.

The contribution to CHEP2004 will start by briefly summarizing the status of the
Grid activities at DESY in the context of EGEE and D-GRID, in which DESY
takes a leading role.
In the following, we will discuss the integration of Grid components in
the infrastructure of the DESY computer center.
This includes technical aspects of the operating system, such as
SuSE versus RedHat Linux, the interaction with the mass storage system, and
the management of Virtual Organizations.
We will finish with discussing installation and operation experiences
of Grid middleware at DESY, also having in mind HEP and future synchrotron
light experiments in the X-FEL era.

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