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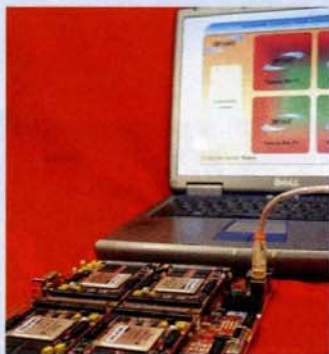
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# Barcelona launches prototype supercomputer

The Barcelona Supercomputing Center (BSC) has launched a new prototype supercomputer, based on Cell and Power6 processors, to be used as part of the PRACE (Partnership for Advanced Computing in Europe) project, of which BSC is a partner.

The work done with this prototype, called MariCel (which means sea and sky in Catalan), will help to define the hardware components and the software stack of a future machine. The future system will have a minimum capacity of 10 Petaflops and will be

at the service of the European scientific community. This represents a calculation capacity of 10 times more than the current most powerful supercomputer in the world, according to the last Top500 list.

'MariCel is part of an initiative to create a common supercomputing structure for Europe,' said Francesc Subirada, associate director of the BSC. 'On this prototype, similar to the architecture of the American Roadrunner, we will test the latest software technologies, some of

them developed at the BSC. We think that in Spain we will be able to install supercomputers 100 times more powerful than the current MareNostrum in 2011 or 2012.'

The Kaleidoscope project code will be run on this new prototype. Kaleidoscope is carried out by BSC and Repsol and its focus is to optimise and execute in MareNostrum, as well as in Cell processors, the Reverse Time Migration (RTM) codes used in next generation seismic imaging technology.

## EGI Blueprint under discussion at workshop

More than 100 attendees have taken part in the third European Grid Initiative (EGI) workshop, which was organised at CERN on 30 June, and followed by the EGI Policy Board meeting on 1 July.

Discussions focused on the EGI Blueprint proposal prepared by the EGI Design Study, the purpose of which is to assess a possible model for the future sustainable Grid infrastructure in Europe and to get feedback leading to the final Blueprint that should be produced by

September 2008. The director general of CERN, Dr Robert Aymar, welcomed the participants emphasising the increasingly important role of Grids for science in Europe in many domains and in particular for CERN and its community.

He underlined the importance of the ongoing and exceptional support given by the European Commission to European Grid projects and wished success to the EGI project in building on these achievements by

establishing a sustainable Grid infrastructure.

The EGI Blueprint draft was presented for the audience by different members of the EGI Design Study team.

Dieter Kranzlmüller, the EGI Design Study project director, stressed in his overview the need for a sustainable European Grid infrastructure. Grid users need to be assured that their investment in Grids and long-term perspectives in the field will be protected.

## Met Office signs supercomputer order

The UK Met Office has signed a contract with IBM for its next generation supercomputer that will underpin its weather forecast and climate research programmes until 2013.

The extra computing power means the Met Office can achieve even more accurate weather forecasts through high-resolution computer simulations. It will allow greater use of ensembles — multiple simultaneous forecasts — which means it will be possible to

give earlier warning of low probability, high impact weather. The system will also be used to progress research on climate change and its impacts on society and the economy.

John Hirst, Met Office chief executive said: 'In a world where the effect of extreme weather events is becoming more severe and the potential impact of global warming is becoming ever more apparent, the Met Office plays an increasingly vital role in

researching and forecasting these events. The new supercomputer is an important step in delivering our strategic targets.'

A discrete part of the system will be used for collaborative scientific research supported by both the Natural Environment Research Council and Met Office.

The new IBM supercomputer is projected to become the second most powerful system in the UK and within the top 20 most powerful systems in the world.