

STATUS OF THE OPERATIONAL APPLICATION IN BULGARIA

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Our hardware platform is LINUX cluster, containing four nodes, each node has two processors Intel Glovertown E.5310 at clock rate 1.8 GHz, Quad core. Thus, we have eight kernels per node. Each node has 8 G bytes memory and 250 GB local disk storage. There is additional server with four processors and 1.4 TB disk storage. It is hosting several servers running on it - DNS, DHCP,

NFS, http (web), the software managing, the RAID controller. The front end machine is virtual one running on two processors of this server. It is hosting also the common file system visible and accessible for the front end machine and the nodes. For MPI exchange the nodes are connected via Infini Band switch, inside nodes shared memory is used, and 1GB switch for NFS. For MPI is used mvapich2-1.2-intel-x86_64 release of MPI2. Compilers are Intel FORTRAN and C composerxe-2011.2.137, 64 bit release. The operating system is 64 bit LINUX 2.6.18-194.32.1.el5xen #1 SMP.

Cycle 32t3 is operational now on domain of 144x108 points with nine kilometers horizontal resolution and 60 levels on vertical and three hours coupling frequency.

We are producing two times daily 72 hours forecast with 06 and 18 UTC starting time.

Dedicated end-users are the wind wave model, forecasting the wind waves and swell for the Black sea region, the system for

forecasting of the air quality in the region of Stara Zagora, GRIBS prepared for SYNERGIE, producing of the files for RODOS system and so on.

A dedicated post processing was created for calculating of the indices for possibility of thunderstorm activity over Bulgaria. For this year is planned determining of the critical values of the selected indices with the aim forecasting the thunderstorm activity events.

Parallel suite is based on cy35t1 and is planned to become operational at the end of June 2011.

CY36T1 was ported and will be tested during this summer.