

New developments in the Bulgarian National Centre for High Performance and Distributed Computing

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The Bulgarian National Centre for High Performance and Distributed Computing (NCHDC, <http://nchdc.acad.bg/en/>) has been established as part of the National Roadmap for Research Infrastructures in 2014 and has continued support in the updated roadmap for 2017-2023. The main resource of the centre is the supercomputer Avitohol, which comprises of 150 servers with dual Intel CPU and dual Intel Xeon Phi, interconnected with non-blocking Infiniband. After significant reconstruction of the datacenter at IICT new hardware and software has been acquired, while more is under way.

For several years Avitohol provided resources for operational meteorological forecasting, so that prognoses for the atmospheric pollution in Sofia can be made available to citizens and policymakers.

The centre supports a diverse set of national user communities as well as it forms the cornerstone of the partners' participation in large-scale international collaborations.

The most intensive usage comes from scientists working in computational chemistry and drug research, climate modelling and computational physics. Attractive new resources optimized for AI and Big Data processing become operational.

The long-term strategy for expansion of the capabilities of the centre is supported through a set of national and EU funding schemes, which are complemented with soft-measures.

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