9th International Conference "Distributed Computing and Grid Technologies in Science and Education" (GRID'2021)



Contribution ID: 126

Type: Sectional reports

National Research and Education Network of Russia: directions of development in the context of expanding of international cooperation

Tuesday, 6 July 2021 15:20 (15 minutes)

The report overviews the current state and key directions of the advanced development of the National Research and Education Network (NREN) of Russia for the period of 2021-2024. Unified NREN called National Research Computer Network (NIKS) was created in 2019 according to the results of integration of federallevel telecommunication networks in the fields of higher education (RUNNet) and science (RASNet). In 2021, the Ministry of Science and Higher Education of the Russian Federation approved regulatory documents, including the management procedure and the concept and the roadmap for the functioning and development of NIKS. The functions of the administrator and operator of NIKS are assigned to JSCC RAS; the network received formal status of Russian NREN. Works on the development of NIKS have been included in the National Project "Science and Universities" with the consolidation of activities, characteristics of the result and target indicators. The main emphasis in the contribution is made on the discussion of the current state of foreign connectivity of NIKS, the planned expansion of international cooperation with NRENs of the EAEU and BRICS countries, the intensification of network and service interaction with European GÉANT and NORDUnet consortia. Special attention is also paid to the possibilities of NIKS to provide telecommunications services with increased requirements for the QoS to leading Russian scientific centers (NRC Kurchatov Institute, JINR, BINP SB RAS, IKI RAS and some others) to ensure participation in international MegaScience projects in the fields of high energy physics, astronomy, Earth observation, etc. (e.g. LHC, ITER, XFEL, FAIR, LIGO, Belle II, SKA).

The work was prepared at the JSCC RAS within the framework of the state assignment no 0580-2021-0014.

Summary

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Session Classification: Round table on IT technologies in education

Track Classification: 2. Research infrastructure