

Modernization of Kazakhstan National Data Center (KNDC) to Implement the Tasks in Support of the CTBTO

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Under the financial support of the Norwegian Center NORSAR provided in 2020-2022 within the joint project, the Kazakhstan National Data Centre (KNDC) upgraded its hard- and software in support of the CTBTO tasks implementation. A new state of the art equipment was installed at the centre in Almaty. A fail-safe information system was created to ensure the following:

- acquisition and storage of seismic data arriving directly from the seismic monitoring stations, and obtained from different sources (software for data acquisition and storage in the databases PostgreSQL and MySQL, seedlink server functioning);
- operation of the file server to store unprocessed data in different formats;
- functioning of servers ensuring the all-round operation of the Data Center (web-server, mail server, FTP, etc.);
- informational safety of the Data Center (firewall, proxy);
- implementation of seismic processing (automated and interactive processing) and infrasound data processing (automated detection).

The new equipment allowed building a cluster of virtualization servers consisting of three high-end servers under the Proxmox virtualization system control. To ensure the fail-safe operation of the system, the cluster uses the distributed file system CEPH and data storage systems based on RAID technologies.

E-mail

komarov.i@kndc.kz

Promotional text

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Primary author: KOMAROV, Igor (National Nuclear Center of the Republic of Kazakhstan)

Co-author: GORDIYENKO, Dmitriy (National Nuclear Center of the Republic of Kazakhstan)

Presenter: KOMAROV, Igor (National Nuclear Center of the Republic of Kazakhstan)

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