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Update on NICIS 100Gbps Data Transfer Services

Moving large amounts of data poses a significant challenge. In most cases, networks optimised for business operations are neither designed nor capable of meeting the data movement requirements of data-intensive research. When scientists attempt to run data intensive applications over these so-called “general-purpose” or enterprise networks, the result is often poor performance. In many cases, this poor performance significantly impacts the scientific mission, leading to challenges such as not receiving data on time or resorting to “desperate” measures, such as physically shipping disks.

There has been a significant increase in available network capacity and a greater need to be able to transfer large amounts of data efficiently. The CSIR through SANReN, NICIS offers a Data Transfer Service as an effort to facilitate the movement of large datasets by South African researchers and scientists.

With the implementation of the SANReN 100Gbps backbone network capacity, 100Gbps Data Transfer Nodes have been implemented in Cape Town, Johannesburg and Durban with Globus (globus.org) data transfer software installed. The best international data transfer results seen were between Johannesburg/Cape Town DTNs and Colorado (NCAR GLADE) and CERN, Switzerland. Data transfer speeds reached between 4.78GB/s-5.48GB/s, which resulted in 1TB of data being moved in only 3 minutes!

If you have large data transfer requirements, please contact pert@sanren.ac.za for assistance.

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