## Centre for High Performance Computing 2020 National Conference



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# SANReN Data Transfer Pilot Service and Performance Enhancement Response Team update

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Moving masses of data is a challenge. In most cases networks optimized for business

operations are neither designed for nor capable of supporting the data movement requirements of data intensive research. When scientists attempt to run data intensive applications over these so called "general purpose"/enterprise networks, the result is often poor performance – in many cases poor enough that the science mission is significantly impacted. At its worst this means either not getting the data, getting it too late or resorting to "desperate" measures such as shipping disks around. The South African National Research Network (SANReN) has been piloting a data transfer service with the goal of changing this for our researchers/scientists and optimising the transfer of datasets across the network. The service makes use of data transfer nodes configured in a science DMZ architecture using specially designed data transfer tools to assist to efficiently and securely move data between local institutions, to and from the CHPC and internationally.

This presentation will present an overview of the SANReN Performance Enhancement Response Team's goals, specifically with regards to the SANReN Data Transfer Pilot service. This includes the science DMZ, data transfer nodes, tools and services implemented. An update will be given on this service on planned way forward and results achieved so far.

Keywords: Performance Enhancement Response Team, Science DMZ, data transfer nodes, optimising data transfer

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