

# TERTIARY EDUCATION AND RESEARCH NETWORK OF SOUTH AFRICA NPC



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The Director-General  
Department of Communications and Digital Technologies  
For attention: Ms C Lesufi  
Director: Telecommunications Policy

18 May 2021

## Written submission in relation to the proposed National Data and Cloud Policy

This submission confines itself to one issue only, namely, the policy intervention that is contemplated in 10.1.2, and more specifically the proposal that:

*The SDIC will have access to the excess capacity of government funded ICT infrastructure of Eskom's telecommunications, SANRAL, Transnet, PRASA and SANREN.]*

Our concern is only in respect of the last of the named entities, "SANREN"<sup>1</sup>.

SANReN is deeply integrated into a larger network, typically described only as the South African NREN. TENET operates the SANReN network under the terms of a long-standing collaboration agreement with the CSIR, in terms of which the functional responsibilities for developing South Africa's National Research and Education Network capabilities are apportioned between the two organisations.

National research and education networks (NRENs) are highly specialised entities, differing significantly from commercial ISPs and telecommunications carriers that deliver network and advanced ICT services to higher education and research. They are characterised by a high degree of agility and responsiveness to user requirements, delivery of network capabilities not typically offered by commercial providers, and generally place a strong degree of emphasis on the international context, especially in regard to collaboration with other NRENs. They are generally regarded by the community they serve as a collaborative partner and active participant rather than a business arrangement. For these reasons it is often difficult to make direct comparisons between the services provided by an NREN and by commercial providers<sup>2</sup>.

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<sup>1</sup> Technically this entity is "SANReN" (see <https://www.sanren.ac.za>). The "e" is rendered in lower case by intention and is the second letter of Research.h

<sup>2</sup> For further background, see <https://www.casefornrens.org/>.

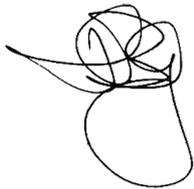
The proposal that “excess capacity” on SANReN be made available to the SDIC gravely misunderstands the role of “excess capacity” in the design of an NREN. NREN circuits are always designed, unlike the circuits of commercial ISPs, with much more capacity than the average load they are expected to bear. The “surplus” is, more accurately, standby capacity, as the network must always be able to carry a large data transfer on demand from researchers. This design principle is broadly characteristic of NRENs worldwide. Without such capacity NRENs would be limited in their ability to respond rapidly to demand, to pivot in the face of emerging circumstances, and to meet unusual research requirements.

If SANReN’s standby capacity were to be assigned to the SDIC then the network would be unable to deliver many of the benefits that its community currently enjoys and would fail in a primary mandate. This in turn would impact South Africa’s standing in the international research community and have direct consequences for many established research projects currently underway.

We respectfully submit that this element of the policy is misconceived and should be abandoned.

We are willing to make ourselves available to the DCDT if they wish to consult further or require clarification or amplification of the matters raised herein.

Kind regards

A handwritten signature in black ink, appearing to be 'Duncan Greaves', written in a cursive style.

**Duncan Greaves**  
Chief Executive Officer