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Association Incorporated under Section 21  
Reg. No.: 2000/020780/08  
Registered Non-profit Organisation 014-801 NPO

**RFP number: 2016-05**

## **Request for Proposal**

for

### **Connecting the SANReN PoP's**

**To**

### **The Sites Identified as in Scope of the RCCP II Project**

**Date of Issue: 18 May 2016**

**Closing date for responses: 17h00 on 31 May 2016**

Primary Contact Person:  
Helga van Wyk  
021 763 7148 / 076 457 1680  
helga@tenet.ac.za

## I. Summary

Your Company was identified as an approved vendor for the provision of circuits (fibre, licensed band microwave wireless or other) and you are accordingly requested to provide a proposal, if you wish to do so, for connecting the various sites to a PoP location, deemed feasible. More detailed information is provided in the remainder of this document.

## II. Service Required

Proposals are requested for:

1. A high availability, **licensed spectrum** wireless, full duplex, point to point circuit connecting Endpoint A – the closest or most feasible SANReN local PoP to listed Endpoint B within the various cities or sites stated in this RFP.

OR

2. A high availability, **dark fibre or managed fibre**, full duplex, point to point circuit connecting Endpoint A - the closest or most feasible SANReN local PoP to listed Endpoint B within the various cities or sites stated in this RFP.

OR

3. A high availability **Free Space Optic**, full duplex, point to point circuit connecting Endpoint A - the closest or most feasible SANReN local PoP to listed Endpoint B within the various cities or sites stated in this RFP.  
(if it is found to be achievable and advisable given the availability requirements).

OR

4. A high availability hybrid solution based on the above listed technologies.

## III. Endpoints

Endpoints (PoP's) are provided in Annexure B. These are options and are not necessarily confirmed preferences. Vendors are permitted to suggest alternatives.

## IV. Service Properties

- **At least 100 Mbps** of sustained bidirectional user datagram throughput is required to the sites.
- **Ethernet handoff must be provided** within the data centres at each endpoint and **an IP MTU of 9000 bytes must be supported**. Ethernet handoff to be single-mode optical fibre (ITU562 C/D).

- **Availability shall be 99.9%, with a four (4) hour incident response time leading to eight (8) hour mean time to resolve (MTTR) the fault.**

The institutions have indicated that any proposal which makes financial and technical sense and is deemed to be reliable will find favour; it is on this basis that we invite you to apply your minds and technology to this problem.

Where **high sites** are used, these **need to be fault tolerant** and resilient in terms of ESKOM power loss for a **minimum of 18Hrs autonomous power**, it must also be proved that one or more mobile power generators are available in the area and will be deployed if required.

## **V. Additional Requirements**

Proposals should address the additional requirements, if any, in Annexure A.

The sites have been prioritized into three phases – of which Phase 1 and 2 make up the scope of this RFP:

### **Phase 1:**

- Mangosutho University of Technology (MUT)
- Mamelodi
- Worcester sites
- Saldanha Military Academy
- George sites
- Vuwani
- Nelspruit sites

### **Phase 2:**

- Mitchell's Plein sites
- Saldanha/Vredenburg sites
- Khayelitsha

The remaining sites will form part of Phase 3 and will be managed in a second RFP later in 2016:

### **Phase 3:**

- Upington
- Newcastle
- Hogsback
- Hanover Park
- Grahamstown
- Mbizana
- Sterkfontein

## VI. Proposal format

It must be clearly understood that omissions will count against any given respondent as it is considered to be indicative of a lacklustre approach to the project and the service to be expected beyond commissioning of the network. Referrals to past documents outside of this process will not be accepted.

A full technical description of the envisaged solution should be provided; this is to include the channels used within a frequency Band to arrive at the appropriate useable bandwidth requirement. It is essential that this document is clear, unambiguous and succinct.

- A full and conclusive table illustrating the costs **per site** as they relate to equipment and installation – Capex;
- The month to month costs of the network post-deployment as these relate to licensing cost and high site rentals, SLA costs – Opex as they **directly relate to a specific site**. ICASA Licensing should indicate expected costs on a per link basis.

**A full description** of service support / SLA options should be provided, together with associated costs. Availability and MTTR targets should be specified, as well as monitoring, alerting, graphing and reporting options. It is crucial that the respondent not only commits to support response and service restoration targets but also fully explains how this will be achieved and by whom (own staff or 3<sup>rd</sup> party).

Installation costs and monthly recurring costs should be clearly specified and all prices must be quoted **inclusive of VAT.**

Proposals should be emailed to Helga van Wyk ([helga@tenet.ac.za](mailto:helga@tenet.ac.za)) by **17h00 on 31 May 2016**. No proposal will be deemed to have been received unless receipt has been acknowledged by return email.

## VII. Terms and conditions under which this RFP is issued

TENET's decisions in regard to this request for proposal are at its sole discretion and no correspondence will be entered into after the closing date for responses.

The respondent shall be solely and fully responsible for all costs associated with the development, preparation, transmittal, and submission of responses to this RFP.

TENET assumes no contractual or other obligations as a result of the issuance of this RFP, the evaluation of proposals, the respondent's conduct of presentations or proof of concept implementations, or the selection of any respondent for further negotiations.

Notwithstanding any intentions expressed in this RFP, TENET reserves the right to abandon this procurement without appointing a service provider or to appoint more than one service provider.

Appointment as the provider of the service will carry no rights to be the sole provider or preferred provider of any service to TENET or any of the institutions it serves.

This RFP is not an offer to purchase, order or contract. By issuing this RFP, TENET is not making an undertaking to award a contract to any supplier submitting a response. The supplier, in responding, makes an offer to supply product/services.

## **VIII. Annexure A: Additional mandatory requirements**

The respondents are to unambiguously **state their earliest, expected and latest completion dates expressed as a number of weeks from time of appointment**, where completion is defined to be when user data is able to flow between the RFP designated Endpoints A and Endpoint B.

Due to a high variance in projected licensing costs received in answer to earlier RFP's, respondents are to clearly explain how they arrived at the Annual License costing presented in the quotation.

The contractual agreements as they relate to high sites is to be fully explained, e.g. The term of the high site contract as also the monthly site rental costs are to be included.

High site power autonomy, fault tolerance and support is to be fully explained.

The respondent is to indicate the number and location of personnel in the region capable of responding to technical faults, as to whether they are third party contractors or your own staff.

Note that the results of this RFP are presented to a committee for the release of funding, therefore the **emphasis on accurate and dependable information** as it relates to high site availability, exact licensing, equipment costs **per site** etc. Any uncertainty will not favour your proposal as any changes need be resubmitted resulting in possibly long delays. It is also possible that amendments to an already approved submission may no longer find favour with the Rural Campus Connection Project committee.

**Respondents will be required to present their proposed solutions, costs and delivery process/methodology to a selected TENET panel, based at the TENET Cape Town office. A date and time will be agreed with the RCCP II Project Manager.**

## IX. Annexure B: RCCP II Sites

\* The existence of high availability, high capacity (1Gb/s and above) infrastructure in the region – MUT.

Province	Area	Site Endpoint A	Origin	GPS Co-Ordinates	Physical Address	Institution	Closest / Most Feasible [Already Established] POP Endpoint B
Eastern Cape	E Cape	Mbizana Campus	From Original RCCP List	-31.077720,30.183571	61R61 Wildcoast Office	UNISA	University of KwaZulu-Natal Howard College (Durban) Campus - 29.868100, 30.979600 [TSN67]
Western Cape	George	George Campus	From Original RCCP List	-33.962796,22.458562	1 Joubert Plaza, 100 Meade St, George, 6530	UNISA	Nelson Mandela Metropolitan University George Campus - 33.955200, 22.529700 [TSN459]
Western Cape	George	George Municipal Hospital	From SANReN List and Requested Site Inputs	-33.951691, 22.451821	Davidson Rd, George, 6530	UCT	Nelson Mandela Metropolitan University George Campus - 33.955200, 22.529700 [TSN459]
Western Cape	George	George Campus (nursing school)	From Original RCCP List	-33.959228, 22.465752	Q Dot Building, 1 Harrie Street, George, 6530	CPUT	Nelson Mandela Metropolitan University George Campus - 33.955200, 22.529700 [TSN459]
Eastern Cape	Grahamstown	Environmental Biotechnology RI	From Original RCCP List	-33.318543, 26.556847	Belmont Valley Road, Grahamstown, 6139	RU	Rhodes University Main Campus -33.312900, 26.519300 [TSN37]

Western Cape	W Cape	Hanover Park Clinic	From SANReN List and Requested Site Inputs	-33.994419,18.526864	Hanlyn Walk, Hanover Park	UCT	Tertiary Education Network House Vincent - 34.003200, 18.467500 [TSN48]
Eastern Cape	Hogsback	UFH-Hunterstoun Research Centre	From SANReN List and Requested Site Inputs	-32.613597,26.914436	University of Fort Hare [Hunterstoun Research Centre] -32.613598, 26.914436 - From the town of Alice take the R63 going towards King Williams Town for about 3km and then turn left on to the R345 to Hogsback.	UFH	University of Fort Hare Alice Campus - 32.785600, 26.843800 [TSN64]
Western Cape	Khayelitsha	Khayelitsha Clinic	From SANReN List and Requested Site Inputs	-34.035522,18.667364	Iwandle Road, Site B, Khayelitsha	UCT	iThemba Laboratory for Accelerator-Based Sciences iThemba LABS (Faure Campus) -34.025200, 18.718200 [TSN235]
Gauteng	Mamelodi	UP Mamelodi	From Original RCCP List	-25.721300,28.399300	University of Pretoria, Mamelodi Campus (old Vista Campus), Cnr Solomon Mahlangu & Hinterland Str.	UP	
Gauteng	Mamelodi	UP Mamelodi	From Original RCCP List	-25.721300,28.399300	University of Pretoria, Mamelodi Campus (old Vista Campus), Cnr Solomon Mahlangu & Hinterland Str.	UP	
Western Cape	Mitchells Plain	Dentistry Faculty	From Original RCCP List	-34.007941, 18.596414	Town Centre Medical Centre, Symphony Way, Mitchells Plain, Cape Town, 7785	UWC	iThemba Laboratory for Accelerator-Based Sciences iThemba LABS (Faure Campus) -34.025200, 18.718200 [TSN235]

Western Cape	Mitchells Plein	Lentegeur Psychiatric Hospitals	From SANReN List and Requested Site Inputs	-34.024394, 18.615646	Highlands Dr, Lentegeur, Cape Town, 7786	UCT	iThemba Laboratory for Accelerator-Based Sciences iThemba LABS (Faure Campus) -34.025200, 18.718200 [TSN235]
Western Cape	Mitchells Plein	Mitchells Plain Community Health Clinic	From SANReN List and Requested Site Inputs	-34.046323, 18.622201	A Z Berman Dr, Cape Town	UCT	iThemba Laboratory for Accelerator-Based Sciences iThemba LABS (Faure Campus) -34.025200, 18.718200 [TSN235]
Western Cape	Mitchells Plein	Mitchells Plain District Hospital	From SANReN List and Requested Site Inputs	-34.021874, 18.613134	A Z Berman Drive, 8 A Z Berman Dr, Lentegeur, Cape Town, 7786	UCT	iThemba Laboratory for Accelerator-Based Sciences iThemba LABS (Faure Campus) -34.025200, 18.718200 [TSN235]
Western Cape	Mitchells Plein	Vanguard Community Health Clinic	From SANReN List and Requested Site Inputs	-33.947745, 18.543590	Candlewood St, Bonteheuwel, Cape Town, 7764	UCT	Dark Fibre Africa Pinelands Aggregation Point -33.936014, 18.509183 [TSN463]
Kwa-Zulu Natal	MUT	MUT Main Campus (Neotel 1 Gbps)	From Original RCCP List	-29.968996, 30.912794	511 Griffiths Mxenge Hwy, Umlazi, Durban, 4031	MUT	University of KwaZulu-Natal Howard College (Durban) Campus - 29.868100, 30.979600 [TSN67]
Kwa-Zulu Natal	MUT	MUT Main Campus (DFA dark Fibre)	From Original RCCP List	-29.968996, 30.912794	511 Griffiths Mxenge Hwy, Umlazi, Durban, 4031	MUT	University of KwaZulu-Natal Howard College (Durban) Campus - 29.868100, 30.979600 [TSN67]



Mpumalanga	Nelspruit	Agincourt: Agincourt Main (Project Office)	From Original RCCP List	24 49 13.8 S 31 15 36.5 E [-24.8205,31.260139]	Agincourt Health and Population Unit (Wits), Agincourt Village Shortline street near Mavhakamela Liquor & Restaurant Thulamahashe, 1360	WITS	Tshwane University of Technology Mbombela Campus - 25.500400, 30.954300 [TSN54]
Mpumalanga	Nelspruit	Agincourt: Agincourt Lab	From Original RCCP List	-24.82280 S 31.22069 E [-24.82280,31.22069]	Agincourt Health Centre Agincourt Village (about 40 Kilometres from Tinswalo Hospital and about 400meters from the 'Agincourt: Agincourt Main (Project Office))	WITS	Tshwane University of Technology Mbombela Campus - 25.500400, 30.954300 [TSN54]
Mpumalanga	Nelspruit	Acornhoek: Tinswalo Hospital	From Original RCCP List	24 35 24.0 S,31 03 39.4 E [-24.59,31.060944]	Tinswalo Hospital Building, Acornhoek-A, 1360	WITS	Tshwane University of Technology Mbombela Campus - 25.500400, 30.954300 [TSN54]
Mpumalanga	Nelspruit	Acornhoek: Wits Rural Facility: Lodge	From SANReN List and Requested Site Inputs	24 33 07.2 S,31 05 47.4 E [-24.552,31.0965]	JHB is via the N4 to Belfast, R540 to Lydenburg, R36 to the Abel Erasmus pass and then the R531 to Klaserie. The Orpen road turn off is 2km past Klaserie and WRF (WITS Remote Facility) is 6.6 km from the turn off	WITS	Tshwane University of Technology Mbombela Campus - 25.500400, 30.954300 [TSN54]
Mpumalanga	Nelspruit	Acornhoek: Wits Rural Facility: Caravella (part of the WITS Rural facility Lodge at Acornhoek)	From Original RCCP List	24 33 07.2 S,31 05 47.4 E	JHB is via the N4 to Belfast, R540 to Lydenburg, R36 to the Abel Erasmus pass and then the R531 to Klaserie. The Orpen road turn off is 2km past Klaserie and WRF (WITS Remote Facility) is 6.6 km from the turn off	WITS	Tshwane University of Technology Mbombela Campus - 25.500400, 30.954300 [TSN54]
Mpumalanga	Nelspruit	Nelspruit Campus	From Original RCCP List	25°28'16.96"S 30°58'39.76"E [-25.471378,30.977711]	31 Brown Street, NELSPRUIT, 1200	UNISA	Tshwane University of Technology Mbombela Campus - 25.500400, 30.954300 [TSN54]

Mpumalanga	Nelspruit	Diverse route (failover)		25°26'09.8"S 30°58'57.1"E [-25.436056,30.982528]	University of Mpumalanga Corner R40 and D725 Riverside Mbombela/ Nelspruit	UMP	Tshwane University of Technology Mbombela Campus - 25.500400, 30.954300 [TSN54]
Mpumalanga	Nelspruit	Nelspruit Campus		25°28'16.96"S 30°58'39.76"E [-25.471378,30.977711]	31 Brown Street, NELSPRUIT, 1200	UL	Tshwane University of Technology Mbombela Campus - 25.500400, 30.954300 [TSN54]
Mpumalanga	Nelspruit	Pullens Farm	From SANReN List and Requested Site Inputs	25° 34' 21.25" S,31° 10' 51.09" E [-25.572569,31.180858]	35 km south east of Nelspruit in the Krokodilpoortberge off the N4	WITS	Tshwane University of Technology Mbombela Campus - 25.500400, 30.954300 [TSN54]
Kwa-Zulu Natal	Newcastle	Newcastle Campus	From Original RCCP List	-27.759735, 29.931422	52b Sutherland Street, Newcastle	UNISA	University of KwaZulu-Natal Pietermaritzburg Campus -29.620800, 30.396500 [TSN68]
Western Cape	Saldanha- Vredenberg	Saldanha Military Academy	From Original RCCP List	-33.032782, 17.926586		SUN	
Western Cape	Saldanha- Vredenberg	Vredenburg Hospital	From SANReN List and Requested Site Inputs	-32.912122, 17.990256	Voortrekker St, Vredenburg, 7380	UCT	
Western Cape	Saldanha- Vredenberg	Vredenburg House	From SANReN List and Requested Site Inputs	32°54'40.42"S 17°59'20.84"E [-32.911228,17.989122]	Witteklip Street, Vredenberg	UCT	

Gauteng	Sterkfontein	Cradle of Humankind	From SANReN List and Requested Site Inputs	-25.925387, 27.767383	Not confirmed	WITS	South African National Space Agency Satellite Applications Centre (Space Operations - Hartebees) - 25.908100, 27.699300 [TSN102]
Northern Cape	Upington	Upington Campus	From Original RCCP List	-28.454853, 21.245766	Le Roux Street, Upington	VUT	Square Kilometre Array Carnarvon PoP Site -30.967000, 22.141200 [TSN237]
Limpopo	Vuwani	Vuwani Resource Centre	From SANReN List and Requested Site Inputs	-22.975679, 30.445379 - GPS Coordinates for the main campus - the site is approximately 17 km's away.	University Road, Thohoyandou, Limpopo Province, 0950	UNIVEN	University of Venda Main Campus - 22.976965, 30.446870 [TSN87]
Western Cape	Worcester	SATVI Clinic	From Original RCCP List	-33.621057, 19.456929	ACS Building, SATVI Offices, Brewelskloof Hospital, Haarlem Street, Worcester, 6849	UCT	
Western Cape	Worcester	Worcester	From Original RCCP List	33°39'23.89"S,19°26'11.54"E [-33.656636,19.436539]	WCCN Boland Overberg Nursing Campus Renier Street, Worcester	CPUT	
Western Cape	Worcester	Worcester Rural Clinical School	From Original RCCP List	33° 38' 40.297" S, 19° 27' 36.619" E [-33.644527,19.460172]	Sugget Street, Worcester, 6850	SUN	