

TERMS OF REFERENCE/SCOPE OF WORK
PROCUREMENT OF SWITCHES TO REPLACE FAULTY SWITCHES.

1. INTRODUCTION

The Agricultural Research Council (ARC) was established by the Agricultural Research Act 86 of 1990 (as Amended) and is the premier agricultural research institution in South Africa. It is a schedule 3A public entity in terms of the Public Finance Management Act 1 of 1999, as amended by Act 29 of 1999. ARC conducts research with partners, develops human capital, and fosters innovation to support and develop the agricultural sector. The ARC conducts its core business operations on several research Campuses (12) across South Africa and the Central office is in Hatfield, Pretoria.

The ARC has a Hybrid work environment configured (e.g. Office and Remote) that includes cloud services. ARC network spans across the country in various geographical locations. The network configuration is as follows:

- 2 Local ISPs provide Wide Area Network (WAN) connectivity to each location via layer 2 local loop circuits.
- ARC's Core Routing and Corporate Infrastructure are hosted in two data centres that specialize in hosting services.
- Each research campus runs on a different network range
- Each research campus runs ICT services locally e.g. Telephony, DHCP, DNS, and connects to centralized Corporate Services
- Traffic is segmented using Virtual Local Area Networks (VLANs) and IP Subnets

2. PROCUREMENT OBJECTIVE

Several campuses function is hampered by faulty switches. This objective is to procure new switches to replace the faulty switches at the following campuses:

1. ARC-VIMP
2. ARC-GC
3. ARC-IC
4. ARC-AE
5. ARC-AP
6. ARC-OVR
7. ARC-Infruitem

3. SCOPE OF WORK

The Agricultural Research Council (ARC) seeks a qualified Extreme Service Provider for the procurement of 13 Extreme switches according to the Specifications tabled below. The service provider is expected to only delivery the switches at ARC Central Office at Hatfield, Pretoria.

Mandatory requirements

- Service Provider must be certified by an OEM partner as a reseller. Please submit the proof of your certificate.

The scope include:

Part Number	Description	Quantity
5320-48P-8XE	5320 48x10/100/1000Base-T PoE+ ports 8x1GbE SFP ports upgradeable to 10G SFP+ MACsec capable 1 Fixed AC PSU Fans.	3
95504-5320-48P-8XE	PW NBD AHR 5320-48P-8XE	
10035	Pwr Cord,10A,BS546,IEC320-C13	
5320-24P-8XE	5320 24x10/100/1000Base-T PoE+ ports 8x1GbE SFP ports upgradeable to 10G SFP+ MACsec capable 1 Fixed AC PSU Fans.	4
95504-5320-24P-8XE	PW NBD AHR 5320-24P-8XE	
10035	Pwr Cord,10A,BS546,IEC320-C13	
X435-8P-4S	X435-8P-4S 8 port 10/100/1000BASE-T PoE+ half/full duplex 4x1/2.5G unpopulated SFP 1 AC PSU fanless	4
95504-X435-8P-4S	PW NBD AHR X435-8P-4S	
10035	Pwr Cord,10A,BS546,IEC320-C13	

5420F-48P-4XE	Extreme Switching 5420F 48 10/100/1000BASE-T FDX/HDX PoE+ 2 stacking/SFP-DD 4 10G unpopulated SFP+ MACsec capable internal fixed PSU fans 1 unpopulated modular PSU slots.	1
95504-5420F-48P-4XE	PW NBD AHR 5420F-48P-4XE	
XN-ACPWR-920W	920W AC PoE PSU supported on PoE models of 5420 switches	
10035	Pwr Cord,10A,BS546,IEC320-C13	
5320-16P-4XE	5320 16x10/100/1000Base-T PoE+ ports 4x1GbE SFP ports upgradeable to 10G SFP+ MACsec capable 1 Fixed AC PSU Fans.	1
95504-5320-16P-4XE	PW NBD AHR 5320-16P-4XE	
10035	Pwr Cord,10A,BS546,IEC320-C13	

3.1 Requirements

- The delivery of the equipment to ARC central office.

3.2 Current Detailed IT landscape

Each ARC research campus comprises the following:

- PC's (Desktops, Laptops, Physical Servers, and Storage)
- Multi-function Printers
- VSP (Extreme) – Core Switches, switches (370 switches in total in the ARC)
- Avaya Wireless Access Points (341 access points in total in the ARC)
- At each research campus, there is a full-fledged Local Area Network (LAN) that runs on either Single or Multi-mode types. These Fiber links provide Up and Downstream links on connected switches in a Hub and Spoke configuration
- WAN connectivity links vary from 10 Mbps to 1 Gbps

4. DESIRED OUTCOMES

The following are the desired outcomes:

- The delivery of the equipment at ARC central office, 1134 Park Street, Hatfield, Pretoria.