

# South African Broadband Educations Networks (RF) NPC (SABEN)

## Request for Information

For

## Client Premises Equipment (CPE)

**RFI number: SABEN 0001/2025**

Date of Issue	Friday, 10 October 2025
Closing Date and Time	Friday, 24 October 2025, 17h00 South African time
Address	<b><u>Submission of information (not queries):</u></b> Email to <a href="mailto:rfi@saben.ac.za">rfi@saben.ac.za</a> <b>(please always quote the RFI number with your submissions and enquiries)</b>
Queries	Queries are to be emailed to <a href="mailto:queries@saben.ac.za">queries@saben.ac.za</a> <i><u>Queries emailed to the RFI submission address will not be responded to.</u></i>

## Purpose of this RFI

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SABEN is seeking information from potential vendors/service providers regarding CPE devices. This RFI is issued solely for information gathering and planning purposes and does not constitute a commitment to purchase or engage in a contract.

### 1. Instructions to Respondents

#### 1.1. Response Deadline:

[Insert date & time, incl. time zone]

#### 1.2. Submission Method:

1.2.1. The electronic pack shall be attached to the email sent to [rfi@saben.ac.za](mailto:rfi@saben.ac.za)

1.2.2. The Email subject shall be **RFI No: SABEN 0001/2025 / Company Name**

1.2.3. The Email body shall contain the below table:

RFI No: SABEN 0001/2025	
Submitting company name	
Authorised company representative	Name:
	Telephone number:
	Email address:

1.2.4. Automatic confirmation receipt of received Emails will be issued.

1.2.5. SABEN has an email receipt size limitation of 35 Mb. If the email is larger than this limit the email should be divided into separate parts before submission.

1.2.6. Closing time and date for submissions is 17:00 on [end\_date].

#### 1.3. Contact for Queries:

For any queries please email: [queries@saben.ac.za](mailto:queries@saben.ac.za)

#### 1.4. Documentation to be Provided:

Please provide the document as per the table below

#	Item	Mandatory	Format
1	Implementation & Support information (section 4)	Yes	PDF Document
2	Equipment data sheets (section 3)	Yes	PDF Datasheets
3	High-Level Pricing Model (section 5)	No	PDF Document
4	CPE Specification Compliance Checklist	Yes	PDF Document

#### 1.5. Confidentiality:

All information provided in response to this RFI will be treated as confidential and used solely for the purpose of evaluating potential solutions for SABEN. Responses will not be disclosed to third parties outside of the evaluation process without the prior written consent of the respondent, except where disclosure is required by law or regulation.

Vendors are requested to clearly mark any information they consider proprietary or sensitive. SABEN will take reasonable steps to safeguard such information and will ensure it is only shared with authorized personnel directly involved in the evaluation of the CPE devices.

Submission of information in response to this RFI does not grant SABEN any rights to vendor intellectual property, and no binding contractual obligations will arise from this RFI process.

## 2. Background Information

SABEN is looking to replace their current CPE devices and Small Form-factor Pluggable (SFP) modules at their clients. The device's purpose is to deliver layer 3 services to the clients over different mediums. Please have a look at the technical specifications for more in-depth details (Section 3).

## 3. Product/Service Capabilities

### CPE Device – Minimum Technical Specifications

Vendors must confirm whether their proposed CPE devices meet the following minimum specifications for internet breakout.

Where applicable, provide exact performance figures, supported features, and documentation. Vendors should indicate **“Meets”**, **“Exceeds”**, or **“Does Not Meet”** for each requirement.

### Quick sizing profiles (optional to include)

- **CPE for large institutions:** 2× SFP+ 10G, 8× 1G + 2× 10G LAN uplinks, 15M sessions
- **CPE for small institutions:** 2 × SFP 1G, 2× 1G RJ-45 WAN, 8× 1G LAN, 9M sessions.

#### 1) Performance & Capacity

- WAN throughput (with firewall/NAT/QoS): **≥ 1 Gbps**
- Concurrent sessions: **≥ 500,000** (Preferred **≥ 1,000,000**)
- NAT translations: **≥ 100,000** active

#### 2) Interfaces

- WAN: **2 × SFP/SFP+ (1/10G), 2 × RJ-45 (1/2.5/5G)**
- LAN: **≥ 8 × RJ-45 (1G)**, VLAN trunking (Outer and Inner tags)
- All interfaces being capable of being limited to any bandwidth
- **8,000** MAC addresses (preferred 16,000–32,000 MAC addresses)
- Dual-WAN capability (active/standby or active/active)
- Optional **4G/5G failover**

#### 3) Routing & Services

- IPv4/IPv6 dual-stack
- OSPF, BGP, policy-based routing
- VRRP/HSRP-equivalent HA
- VRF-Lite / inter-VLAN routing

#### 4) Security

- Stateful firewall with zones
- IPsec VPN IKEv2 (AES-GCM, SHA-2)
- DoS/DDoS protections
- RBAC, RADIUS/TACACS+, MFA support

#### 5) QoS

- DSCP marking/trust
- Shaping/policing
- Voice/video prioritisation

#### 6) SD\_WAN (optional but preferred)

- Overlay tunnels, dynamic path selection (loss/latency/jitter SLAs), brownout/blackout detection, ZTP enrollment.

#### 7) Management & Telemetry

- Web UI (optional), CLI, API
- SNMPv3, Syslog, NetFlow/IPFIX
- Zero-Touch Provisioning (cloud/on-prem) (optional)
- Config rollback/versioning

#### 8) Power & Form Factor

- AC power, 1U rack, rack mountable in standard 19-inch rack, Rack mount kit to be included, dual PSU, comes with standard South African plugs

- Operating temp 0–45 °C (preferred extended temp models)
- CE/FCC/UL, ICASA certified

#### 9) Software & Support

- Clearly state required licenses
- 8×5 NBD support minimum (preferred 24×7×4-hr)
- Minimum 3 years software/firmware support

#### 10) SFPs

- 10km distance
- 1310nm duplex
- LC-LC for Single mode

### CPE Specification Compliance Checklist

Specification Area	Requirement	Vendor Response (Meets/Exceeds/ Does Not Meet)	Details / Figures Provided
Performance - Small institution device	≥ 1 Gbps WAN throughput (with services on)		
Performance - Small institution device	≥ 500,000 concurrent sessions		
Performance – Large institution device	≥ 10 Gbps WAN throughput (with services on)		
Performance – Large institution device	≥ 500,000 concurrent sessions		
Interfaces – Small institution device	≥ 2 × 1G WAN (SFP) and 2 × multi-Gig RJ-45 ≥ 8 × 1G LAN interfaces  9 million concurrent sessions  VLAN supported interfaces capable of being limited to any bandwidth		
Interfaces – Large institution device	≥ 2 × 10G WAN (SFP+) and 2 × multi-Gig RJ-45 ≥ 8 × 1G LAN interfaces  15 million concurrent sessions		

	VLAN supported interfaces capable of being limited to any bandwidth		
Routing	IPv4/IPv6 dual-stack, OSPF, BGP		
Security	Stateful firewall + IPsec IKEv2		
QoS	DSCP marking + shaping/policing		
Management	SNMPv3, Syslog, NetFlow/IPFIX		
Support	≥ 3 years software/firmware support		
Compatible SFP	10km 1310nm duplex LC-LC 10G SFPs for Single mode fibre		
Compatible SFP	10km 1310nm duplex LC-LC 1G SFPs for Single mode fibre (G657A2)		

#### 4. Implementation & Support

4.1. Please provide the following information about the devices:

- 4.1.1. Typical lead times
- 4.1.2. Are licenses required for these devices?
- 4.1.3. Available support and training service

#### 5. Pricing Model (High-Level)

5.1. If possible/relevant, please provide the following:

- 5.1.1. Licensing/subscription structure
- 5.1.2. Estimated cost ranges
- 5.1.3. Any additional cost considerations

#### 6. Evaluation & Next Steps

Responses to this RFI will be reviewed to better understand the available solutions and market capabilities. Based on the information received, SABEN may proceed with a Request for Proposal (RFP) or Request for Quotation (RFQ) at a later stage.