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The information given below is an extract of the scope of work.

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If you have a MAAA CSD registration number and receiving email notifications from PetroSA Procurement you are already registered, please login as indicated below:

Username: MAAA...

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Contact the call center on **+27 21 939-3131** or email: **email: supplier@petrosa.co.za** if you are having problems with your login.

If **you do not have a MAAA** CSD registration number, please click on **“Not Registered Yet”** and register. Click on the link below to download a “how to” guide to assist you.

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SCOPE OF WORK / Specifications



PROVISIONING OF TWELVE (12) LAPTOPS AND THREE (3) TOWER HIGH PERFORMANCE ENGINEERING WORKSTATIONS

1. Background

PetroSA currently makes use of DELL/EMC VxRail VDI infrastructure to process and manipulate Seismic and Big Data for Upstream decision making. The technology has served its purpose up to now. The infrastructure has reached its end-of-service-life and out of maintenance. Therefore, PetroSA requires to acquire dedicated engineering computing devices for the Geophysicists and Geologists to enable them to process data and support the current and upcoming projects for PetroSA.

2. Requirements

PetroSA is looking for a Service Provider for the provisioning of :-

- ◆ **TWELVE (12) LAPTOPS: AND**
- ◆ **THREE (3) TOWER HIGH PERFORMANCE ENGINEERING WORKSTATIONS**

adhering to the MINIMUM (could be higher or better) specifications below at an **all-inclusive once-off cost** (excluding VAT and including warranties).

Each proposed item must comply with, or exceed, every requirement classified as Mandatory. Where a component differs from a stated reference part, the bidder must provide manufacturer evidence of equal or better performance for that requirement

***Supply:** Sourcing and/or acquiring 12 Laptops and 3 Tower Workstations.

***Delivery:** Covers the logistics of delivering the equipment to the PetroSA, Parow offices.

2.1 Device Specifications

Mandatory minimum specifications for All Computing Devices

2.1.1 Security & Management

- **Trusted Platform Module (TPM)**
 - **TPM 2.0 or later:** MANDATORY (discrete or firmware-based)
 - Used for: BitLocker encryption, secure boot, Windows 11 compliance
 - FIPS 140-2 certified
- **Secure Boot & Firmware**
 - **UEFI firmware:** Not legacy BIOS
 - **Secure Boot:** Enabled and configurable
 - **Firmware password protection:** Support for admin and user passwords
 - **Firmware updates:** Minimum 5 years security update commitment from purchase date
- **Enterprise Manageability**
 - **Intel vPro®**
 - Wake-on-LAN support
 - Network boot (PXE) capability
 - Remote BIOS/firmware configuration
- **Physical Security**
 - **Camera privacy shutter:** Physical, not software-only (required for laptop)
 - **Security lock slot:** Kensington or Noble Wedge compatible
 - **IR camera for Windows Hello:** Required for Laptops
 - **Fingerprint scanner:** Required for Laptops

2.1.2 Support & Warranty (Minimum Requirements)

- Minimum warranty period: 36 months
- Onsite OEM service: Next Business Day response
- International warranty coverage for laptops: MANDATORY

- Hardware retention option: Hard Drive and data protection service included
- Support escalation process documented by supplier
- Firmware security updates: Minimum 5 years from purchase date

2.2 Desktop Minimum Technical Specifications

2.2.1 Form Factors

- Tower form-factor

2.2.2 Processor

- Minimum: Intel® Core™ Ultra 7 (14th Generation or newer) with vPro® technology
 - Minimum 20 cores, 20 threads
 - Minimum 33 MB cache
 - Minimum boost frequency: 5.3 GHz

2.2.3 Memory

- Minimum: 64 GB, recommended: 128 GB
- Type: DDR5 or later
- Minimum speed: 5600 MT/s
- Form factor: DIMM or equivalent, minimum 2 slots
- Expandable architecture required

2.2.4 System Display

- Minimum diagonal size: minimum 24"
- Minimum resolution: FHD (1920 x 1080)
- Minimum refresh rate: 60 Hz
- Panel technology: IPS or superior (OLED, Mini-LED)
- Anti-glare coating required
- Minimum brightness: 250 nits
- Touch capability: Optional

2.2.5 Graphics

- Minimum: NVIDIA RTX 5500 24GB GDDR6 3xDP 1xHDMI
- Must support minimum display resolution and refresh rate requirements
- Discrete graphics for enhanced performance
- Support for additional monitors

2.2.6 Storage

- Minimum capacity: 1TB
- 1TB SSD TLC with DRAM M.2 2280 PCIe Gen4 SED Ready
- Form factor: M.2 SSD or better
- Performance class: Minimum Class 25 or equivalent
- Optional: Self-Encrypting Drive (SED) with TCG Opal 2.0 support, or BitLocker-compatible

2.2.7 Networking

- Wireless
 - Minimum: Wi-Fi 6 (IEEE 802.11ax) or newer standard
 - Minimum: Bluetooth® 5.4 or newer
- Wired
 - Minimum: 1 Gbps Ethernet (RJ45)
 - Optional: Support for 2.5 Gbps/10 Gbps future-ready

2.2.8 Port Configuration (Minimum Requirements)

- USB Connectivity:
 - Minimum 1x USB Type-C® port supporting USB 3.2 Gen 2 (10 Gbps) or faster
 - Minimum 1x USB-A ports supporting USB 3.2 Gen 2 (10 Gbps) or faster
 - Minimum 1x USB-A ports supporting USB 3.2 Gen 1 (5 Gbps) or faster
 - Total: Minimum 3 USB ports (1x Type-C, 2x Type-A)
- Audio:
 - Minimum 1x Universal audio port (combo) or separate headphone/microphone ports
 - Minimum 1x Audio line-out port
- Video:
 - Minimum: 1x DisplayPort 1.4a (or newer) with HDCP 2.3+ support
 - Optional: 1x HDMI display output port (version 1.4b or newer) with HDCP 1.4+ support
 - Minimum: 1x HDMI output port (version 2.1 or newer) with HDCP 2.3+ support
- Network:
 - Minimum: 1x RJ45 Ethernet port (1 Gbps capable minimum)

2.2.9 Accessories

- USB or wireless keyboard (required)
- USB or wireless mouse (required)
- Both must meet ergonomic and connectivity standards

2.3 Laptop Minimum Technical Specifications

2.3.1 Laptop Categories

- Engineering

2.3.2 Security & Management

- TPM 2.0 chip
- UEFI with Secure Boot
- Intel vPro® or equivalent
- Physical camera privacy shutter
- Security lock slot (Kensington or Noble Wedge)
- IR camera for Windows Hello (facial recognition)
- Firmware updates supported for minimum 5 years

2.3.3 Chassis

- Form factor:
 - Engineering: Clamshell
- Material: Aluminium or premium composite
- Weight: Maximum 2.3kg (recommended for portability)
- Durability: MIL-STD-810H tested(Mandatory)

2.3.4 Processor

- Minimum: Intel® Core™ Ultra 9 (Series 1 or newer) with vPro® technology
 - Intel(R) Core(TM) Ultra 9 processor 285HX or higher
 - Minimum 12 cores, 14 threads
 - Minimum 12 MB cache
 - Minimum boost frequency: 4.9 GHz

2.3.5 Graphics

- Minimum: NVIDIA® RTX™ PRO 2000 or later, 12 GB GDDR7 or higher
- Must support minimum FHD display resolution and external display requirements
- Discrete graphics mandatory for specialised workloads

2.3.6 Display

- Minimum diagonal size:
 - Engineering: 15.6" or 16".
- Minimum resolution: FHD+ (1920 x 1200) or higher aspect ratio
- Panel technology: IPS or superior (OLED)

- Surface treatment: Anti-glare recommended
- Minimum brightness: 400 nits (for outdoor/bright environment use)
- Colour accuracy: Minimum 100% sRGB coverage recommended
- Dual external 27" monitors for each laptop (must run at native resolution via the supplied dock)

2.3.7 Memory

- Engineering: 64GB (preferred 128GB)
- Type: 6400 MTs DDR5
- Minimum speed: 6400 MT/s

2.3.8 Storage

- Minimum capacity:
- Engineering: 1TB
- Interface: PCIe Gen 4 NVMe or newer
- Form factor: M.2 SSD

2.3.9 Keyboard

- Layout: English US
- Backlight: Mini-LED or equivalent with ambient light sensor
- Battery-saving features required
- Special keys: AI/Copilot key or equivalent productivity key
- Key count: Minimum 79-key layout
- **Biometric security: Integrated fingerprint reader MANDATORY (power button or keyboard deck)**

2.3.10 Port Configuration (Minimum Requirements)

- **USB/Thunderbolt:**
 - Minimum 2x Thunderbolt™ 4 (or newer) ports with:
 - DisplayPort™ Alt Mode support
 - USB Type-C connector
 - USB4 protocol support
 - Power Delivery (minimum 65W input)
 - Minimum 2x USB-A ports supporting USB 3.2 Gen 1 (5 Gbps) or faster
- **Audio:**
 - Minimum 1x Universal audio port (3.5mm combo jack)
- **Video:**
 - Minimum 1x HDMI port (version 2.0 or newer) with HDCP 2.2+ support

- **Slots**
 - 1x Nano SIM slot (eSIM support is an acceptable alternative)
 - **1x Security lock slot MANDATORY (Kensington or Noble lock compatible)**
 - Optional: MicroSD card reader

2.3.11 Camera

- Minimum resolution: 1080p (FHD) at 30 fps or higher
- HDR support required
- **Physical privacy shutter: MANDATORY**
- **Windows Hello IR camera: MANDATORY for facial recognition**
- Microphone: Minimum dual-array with noise cancellation

2.3.12 Audio & Speakers

- Minimum: Stereo speakers (downward or upward-firing)
- Audio quality: Hi-Fi or premium audio certification (Dolby Atmos, Bang & Olufsen, etc.)
- Minimum total output: 4W (2 x 2W or equivalent)

2.3.13 Networking

- **Wireless:**
 - Minimum: Wi-Fi 7 (IEEE 802.11be) or newer standard
 - Minimum: Bluetooth® 5.4 or newer
 - **Cellular: 4G or 5G modem MANDATORY**
 - eSIM capable
 - Global band support required
- **Wired:**
 - Gigabit Ethernet capability onboard or via USB-C/Thunderbolt adapter (adapter may be sold separately, but must be included)

2.3.14 Battery

- Minimum rated battery life: 16 hours (typical office productivity workload)
- Fast charging: Minimum 80% charge in 60 minutes
- Minimum 135W–180W Type-C or Slim Power Adapter
- ExpressCharge or equivalent technology required
- **Battery health reporting via BIOS and OS**

2.3.15 Power Adapter (Docking Station)

- Minimum: 65W USB Type-C adapter
- EcoDesign compliant (Energy Star, EPEAT, or equivalent)
- Compact form factor required

- Cable length: Minimum 1.8m
- **Thunderbolt 4 / USB4 Docking Station** with dual-display support for each laptop.

2.3.16 Support & Warranty (Minimum Requirements)

- **International warranty coverage: MANDATORY**

3. Elimination Criteria

- If any of the specifications are not met, the Tenderer will be eliminated;
- Written proof from OEM or distributor that Tenderer is a Service Partner and/or Value-Added Reseller of the Laptops and Workstations – refer Returnable Schedule.
- Written quotation/s with Bill of Materials and all-inclusive fee for the above hardware and services including warranties, if applicable; and
- Written proof of 2 (two) references of same and/or similar services provided – refer Returnable Schedule .
- **Tenderers to ensure the CBA (Commercial Bid Analysis) is fully completed and attached to its Tender on ISS, failing which may result to elimination.**
- **An all-inclusive quotation must be attached to the tender stipulating the specifications required.**

Important Notice: The selected brand and configuration may be adopted as PetroSA's initial engineering reference configuration, subject to periodic architecture, security, supportability and commercial review. This does not commit PetroSA to future purchases and does not restrict future competitive procurement.

4. Enquiries

- Any enquiries regarding this tender should be addressed to **Caroline Widmer** in the Tender Office at telephone no. **(021) 929-3006**, or e-mail address caroline.widmer@petrosa.co.za.
- Log onto the PetroSA website and access the full RFQ on the e-Procurement system. www.procurement.petrosa.com
- No emailed tenders will be accepted.