

Installation of New Network Points at ARC Transboundary Animal Diseases and Merge

Workstations

Installation Site: Agricultural Research Council

M35, 100 Old Soutpan Road

Onderstepoort

0110

Requirements:

35 Network points to be installed at ARC Transboundary Animal Diseases and Merge Workstations

Additional Requirements

Service providers shall ensure that all additional items necessary for the installation of network points are clearly specified in their quotation.

Specifications for Network Points

1. Cabling Standards

- All cabling shall comply with TIA/EIA-568-C standards for structured cabling.
- Use Category 6 (Cat6) UTP cable, rated for Gigabit Ethernet and suitable for up to 10Gbps over short distances.

2. Cable Routing & Installation

- Cables must be routed through dedicated conduits, trunking, or cable trays to avoid interference.
- Maintain a minimum separation of 150mm from power cables to reduce electromagnetic interference.
- Maximum cable length per run: 90 meters (excluding patch cords).
- Ensure proper bend radius (no tighter than 4 times the cable diameter).

3. Termination & Labelling

- Terminate all cables on Cat6-rated patch panels in the server/network room.
- Terminate outlets using Cat6 RJ45 keystone jacks.
- Each network point must be clearly labelled to correspond with the switch port and patch panel position.
- Follow a standardised naming convention (to be confirmed with the ICT team)

4. Lightning & Surge Protection

- Where required, install lightning protection units between patch panels and switches.
- Ensure sufficient port capacity on protection units to accommodate all new points.

5. Testing & Certification

- Perform Fluke DTX/DSX cable analyzer testing or equivalent for each installed point.
- Submit test results confirming compliance with Cat6 performance standards (NEXT, attenuation, return loss, etc.).
- Any failed points must be re-terminated and retested until compliant.

6. Connection Protocol

- No direct connections from patch panels to switches are permitted.
- All connections must pass through structured cabling and patch cords.

7. Documentation & Handover

- Provide as-built drawings showing cable routes, patch panel assignments, and outlet locations.
- Deliver a final labelling schedule and test certification report.
- Ensure the ICT team signs off before project closure.

Specifications for Merge Workstations

Merge Workstations are modular, collaborative office furniture designed for 2–4 users per unit. The enhanced specification includes integrated electrical and data connectivity to support modern digital workplaces.

Requirements:

Tow-Seater or Four-Seater Workstations.

Quantity to be confirmed at the Compulsory Site Briefing.

1. Considerations:

- Dimensions: To be confirmed at the Compulsory Site Briefing.
- Space Configuration Planning: Ensure the workstation dimensions fit the office layout.
To be confirmed at the Compulsory Site Briefing.
- Customisation: To be confirmed at the Compulsory Site Briefing.
- Assembly: May require professional installation depending on the supplier. To be confirmed at the Compulsory Site Briefing.

2. Power Integration

Power Outlets:

- 5 Plugs per Circuit breaker.
- 20 Plugs and 35 Network points.
- Surge-protected, compliant with SANS electrical standards
- **Optional USB Charging: 2 × USB-A and 1 × USB-C per user (fast charging support)**
- **Power Distribution:** Centralised under-desk trunking with access panels
- **Safety:** Circuit breakers and thermal protection integrated
- 63A dp x1
- 63a EIL x 1
- 20A X 4
- 200M 2.5M Round Cable
- Trunking Double.
- Retentile for CBI Breaker x 15

- Surge Arrestor Double Pole
- COC Certificate

3. Network Connectivity

- **Ethernet Ports:** 1 × RJ45 Cat6 port per user, routed through concealed cabling
- **Patch Panel:** Centralised under-desk patch panel for structured cabling
- **Cable Routing:** Vertical risers and horizontal trays to avoid clutter

4. Ergonomics & User Comfort

Material for the standard size tables should be in Nelson Melanite Oak with Aluminium poles

- Table 1 10mx2.3m U Shape
- Table 2 4.3m x 1.5
- Table 3 1.5m
- Rounded edges for safety

5. Cabling & Cabinet

- 35 Cat6 Network Points
- Merge Workstation
- 48 Port-Switch with fibre link
- Patch Panel x 1
- Patch Panel x 1
- 100M UP Link
- 9U Cabinet

Compulsory Site Visit

All prospective service providers are hereby informed that a site visit is mandatory before the submission of quotations for the installation of:

1. 35 Cat6 network points

2. Merge Workstations.

Purpose of the Site Visit:

- To assess the physical environment and confirm installation requirements.
- To verify cable routing, switch accessibility, and lightning protection needs.
- To ensure accurate scoping and costing for the Merge Workstations.

Conditions:

- Attendance at the site visit is compulsory; failure to attend will result in disqualification from the procurement process.
- Representatives must sign the attendance register as proof of participation.
- Any technical queries or clarifications must be raised during the site visit.

Details:

Date and Time: [Insert date and time] - **TBC**

Venue: ARC- OVR (Transboundary Animal Diseases)

Contact Person: Mr Joseph R Khoza 012 5299529