

TERMS OF REFERENCE (TOR)

Supply, Installation, Testing, and Commissioning of Structured Network Cabling and Infrastructure

1. Background & Objective

The objective of this project is to establish a robust, high-speed, and scalable local area network (LAN), voice network, wireless infrastructure, and IP surveillance system for our office.

The selected vendor will be responsible for the end-to-end supply, installation, configuration, testing, and commissioning of all required passive and active components to ensure seamless connectivity and security.

2. Scope of Work (SOW)

The vendor shall provide all necessary labor, tools, materials, cabling, and engineering services to install a total of **94 structured network drops**, broken down as follows:

Service Type	Quantity	Requirements / Specifications
Data Network (LAN)	25 Points	High-speed data drops for workstations, printers, and servers.
Voice Network (IP Phone)	40 Points	Dedicated drops for VoIP/IP communication handsets & providing the 40 IP Phone High Quality
Wireless Access Points (AP)	5 Points	Ceiling/wall-mounted drops optimized for maximum Wi-Fi coverage and providing High quality of AP
IP CCTV Surveillance	25 Points	Security network drops for indoor/outdoor IP cameras.
Total Drops	95 Points	

Key Technical Requirements:

- **Cabling Standard:** All horizontal cabling must utilize high-quality **Category 6 (Cat6) or Cat6A** UTP/STP cables capable of supporting Gigabit speeds and Power over Ethernet (PoE/PoE+).
- **Containment:** Proper PVC conduits, trunking, and cable trays must be installed to protect cables and maintain office aesthetics. No exposed wiring will be accepted.
- **Network Rack / MDF:** Supply and installation of a central network rack (sized appropriately, e.g., 12U to 24U depending on space) equipped with patch panels, wire managers, and a power distribution unit (PDU).
- **Termination & Labeling:** All endpoints must be terminated using high-quality RJ45 keystones and dual/single faceplates. Standardized, printed labeling must be applied to both the user-end faceplates and the central patch panel.

3. Deliverables & Testing

The vendor is expected to deliver a fully operational system, which includes:

1. **Fluke Testing & Certification:** Comprehensive testing of all 95 points using a calibrated network analyzer. A digital copy of the test reports showing "PASS" for all lines must be submitted.
2. **As-Built Drawings:** A schematic diagram showing the physical routing of cables and the exact locations of all 95 network points.
3. **Handover & Documentation:** A neat handover document detailing the patch panel numbering scheme and system walkthrough.

5. Timeline & Execution

- **Site Survey:** To be conducted by the vendor prior to submitting the final financial proposal.
- **Project Duration:** The vendor must propose a realistic timeline (e.g., 2–3 weeks from the date of contract award) to minimize disruption to daily office operations.