

	TENDER SCOPE OF WORK Group Information Technology	Template Identifier	240-IT042	Rev	1
		Effective Date	April 2023		
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Description of Request	The procuring of VOIP Telephone handsets
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High level background

Eskom is transitioning from Cisco telephony system to Microsoft Teams Phone; and requires the supply, delivery and support of telephone devices that align with Microsoft Teams to meet our operational requirements. The devices range from desk phones to teleconference phones for various business units.

Eskom requires Microsoft Teams-certified telephone handsets for both internal and external communication to ensure secure, reliable, and standardised communication across multiple departments and regional offices

Eskom has made a large investment in Microsoft technology to grant access to Microsoft software and Microsoft services. The Microsoft software in Eskom is used for access to the following services:

- Operating Systems
- Productivity Software (Microsoft 365 formerly known as Office 365 Software)
- Cloud Services - Microsoft 365 / Azure AD Premium, Exchange
- Security and Management tools – Microsoft Intune, Defender for Endpoint
- Collaboration and Communication – Telephone equipment and Video Conferencing equipment

This Microsoft technology provides an essential communication platform for all business applications and communications that are essential to Eskom operations. Due to this the following Key Requirements are needed

- Native Microsoft Teams application to seamlessly integrate with the platform, leveraging its features and functionalities.
- Open SIP Standards
- Security & Compliance: Devices must support government-grade security standards, including encryption (TLS/SRTP) and compliance with Microsoft 365 governance policies.
- Scalability: Solutions should support thousands of users across diverse locations, with centralized management through Microsoft Teams Admin Center and OEM Management Portal.
- Reliability: Enterprise-grade hardware with extended warranty, redundancy options, and OEM support.
- Interoperability: Seamless integration with Microsoft Teams Rooms, conferencing devices, and existing telephony infrastructure where required.

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- Support & Lifecycle Management: Vendor-certified support, firmware updates, and guaranteed supply chain availability to meet long-term operational requirements

By meeting these requirements, Microsoft Teams phones will enable Eskom to modernise communication, improve efficiency, and maintain compliance with strict regulatory frameworks while delivering consistent service to all departments.

1. Scope of work/Business requirements

1.1. Provide detailed description and volumes of the product/service requested:

Mandatory Requirements:

- Certification: Supply Microsoft Teams OEM certified desk phones and conference devices with native integration
- Warranty: Five (5) year swap out device warranty
- Delivery: Delivery to multiple Eskom sites across South Africa
- Teams Phones as below:
 1. Common Area
 2. Entry Level
 3. Manager/Executive
 4. Teleconference
 5. Digital Enhanced Cordless Telecommunications (DECT)

1.1.1 Common Area Phone specifications

Audio Features

- HD Voice / Wideband audio
- Full-duplex speakerphone
- Built-in echo cancellation and noise reduction

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Display & Interface

- Colour LCD or touchscreen (typically 4–5 inches)
- Physical keypad or touch dial pad
- Dedicated Teams button
- Simple UI optimized for walk-up use (dial, answer, transfer)

Networking & Power

- Ethernet (RJ-45) connectivity
- PoE (Power over Ethernet) support
- Dual Ethernet ports (PC passthrough)

Calling Capabilities

- Inbound & outbound PSTN calling
- Internal Teams user calling
- Emergency calling (location-based if configured)
- Supports Calling Plans, Operator Connect, or Direct Routing

1.1.2 **Entry-Level Phone Technical specifications**

Audio Capabilities

- HD or wideband audio
- Handset and speakerphone modes
- Acoustic echo cancellation
- Basic noise suppression

Display & User Interface

- Colour display (touch or non-touch)
- Typical screen size: 3.5" – 5.0"
- Physical keypad or onscreen dial pad
- Dedicated Microsoft Teams button
- Simplified Teams user interface

Connectivity & Hardware Interfaces

- Ethernet (RJ-45) connectivity
- Power over Ethernet (IEEE 802.3af)
- Dual Ethernet ports
- RJ-9 headset port or USB headset support

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Network & PSTN Compatibility

- Compatible with: Microsoft Calling Plans, Operator Connect and Direct Routing
- Supports encrypted signalling and media (TLS / SRTP)
- Compatible with enterprise QoS configurations

1.1.3 **Manager/Executive Phone Type Technical specifications**

Core Calling Capabilities

- Internal Teams calls
- PSTN inbound and outbound calling
- Hold, resume, consult transfer, blind transfer
- Call forwarding and simultaneous ring
- Multiple simultaneous calls (multi-line handling)
- Call Park and pickup
- Do Not Disturb overrides (policy-driven)

Executive & Manager Features

- Call delegation (Boss/Admin scenarios)
- Executive–assistant calling model
- Shared line appearance / line keys
- Priority call handling
- Fast transfer and consult workflows

The device SHOULD support:

- Expansion modules / sidecars for speed dials
- Programmable line keys
- One-touch access to delegates and frequently called contacts

Voicemail & Messaging

- Personal cloud voicemail
- Voicemail transcription
- Visual voicemail on device
- Message waiting indicators
- Presence-aware contact calling

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Meeting & Collaboration Support

- Calendar access
- Meeting notifications
- One-touch join for Teams meetings
- Seamless handoff between desk phone, Teams desktop, and mobile clients

Audio Capabilities (Enhanced Quality)

- Premium HD / wideband audio
- Full-duplex, high-performance speakerphone
- Advanced echo cancellation
- Advanced noise suppression
- Optimised microphone array
- Handset, headset, and speaker modes

Display & User Interface

- Large colour touchscreen
- Recommended minimum screen size: 7 inches
- High-resolution display
- Dedicated Microsoft Teams button
- Touch-based call controls and directory access
- Clear visibility for multiple lines and call states

Connectivity & Interfaces

- Ethernet (RJ-45)
- Power over Ethernet (IEEE 802.3af or higher)
- Dual Ethernet ports (PC passthrough)
- USB port (headset / accessories)
- RJ-9 headset port
- Bluetooth (headsets / mobile pairing)

Network & PSTN Support

- Compatible with: Microsoft Calling Plans, Operator Connect and Direct Routing
- Enterprise QoS
- Secure signalling and media encryption (TLS / SRTP)

Physical & Ergonomic Requirements

- Premium desk phone form factor
- Corded handset with ergonomic design

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- Adjustable stand
- Optional wall-mount
- Expansion modules supported
- Designed for extended daily usage

1.1.4 **Conference Phone Technical specifications**

Microphones

- 360-degree microphone pickup
- Beamforming or multi-mic array recommended
- Required support for:
 - Acoustic Echo Cancellation (AEC)
 - Noise suppression
 - Automatic Gain Control (AGC)

Speakers

- Full-duplex speakerphone audio
- Minimum loudness and distortion thresholds (defined in Teams V5 audio spec)
- Clear intelligibility at room-scale distances

Audio Codec Support (Teams standard)

Commonly required / tested codecs include:

- SILK
- OPUS
- G.722 (wideband)

User Interface & Controls

- Native Microsoft Teams UI
- One-touch Join for meetings
- Incoming/outgoing call controls
- Mute status clearly visible (LED + UI indication)
- Touchscreen display (typically 4"–7" range, not a fixed size requirement)

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Connectivity Requirements

Network

- **Ethernet (required)**
- **PoE (IEEE 802.3af or 802.3at)**
- Wi-Fi and Bluetooth optional but commonly supported

Expansion

- Optional external / extension microphones
- USB ports (charging or expansion, OEM-specific)

Security Requirements

Conference phones must comply with Microsoft Teams security standards, including:

- Secure boot
- OS-level hardening
- Encrypted signalling and media
- Compliance with Microsoft cloud authentication mechanisms

1.1.5 **DECT Phone Technical specifications**

Cordless desk phone solution consisting of:

- One or more **DECT base stations**
- One or more **DECT handsets**

Architecture Model (Mandatory)

Certified DECT solutions follow this model:

- **DECT Base Station**
 - Ethernet-connected
 - Runs Teams-certified firmware (often Android-based internally)
 - Handles Teams signalling, media, security, and management

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- **DECT Handsets**

- Cordless, paired to the base
- Do **not** run Teams directly
- Rely on base station for Teams functionality

Handsets alone cannot be certified; **certification applies to the DECT system.**

Platform & Software Requirements

- Base station must:
 - Be certified against **current Teams phone certification specifications**
 - Support Microsoft Teams Phone (cloud PBX)
 - Be updatable for security and Teams feature alignment
- Firmware certification is tied to the Teams certification version in effect at entry time.

Core Teams Calling Features

Certified DECT systems must support:

- Microsoft Teams outbound & inbound calls
- Call hold, transfer, forward
- Voicemail access
- Call history
- Presence synchronization
- E911 / emergency calling (service-dependent)

Supported calling scenarios:

- Calling Plans
- Operator Connect
- Direct Routing.

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Audio Requirements

Handset Audio

- HD wideband audio
- Noise suppression
- Acoustic Echo Cancellation (AEC)
- Automatic Gain Control (AGC)

Base Station Audio Handling

- Proper encoding/decoding for Teams media
- Audio performance validated using **Teams V5 audio certification tests**

DECT Radio & Mobility Requirements

- Must comply with regional **DECT frequency regulations**
- Support:
 - Secure handset pairing
 - Encrypted DECT communication
 - Stable roaming between base stations (if multi-cell supported)

User Interface & Controls

Handset

- Colour or monochrome display
- Physical keys for:
 - Call answer/end
 - Mute

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- Volume

- Clear mute state indication (icon or LED)
- Basic Teams indicators (call status, voicemail)

Base Station

- No end-user UI required
- All configuration done centrally via Microsoft tools or OEM admin interface

Network & Power Requirements

Base Station (Mandatory)

- Ethernet (RJ-45)
- PoE (IEEE 802.3af or 802.3at)
- IPv4 / IPv6 support

2 Requirements

Both interim and future requirements will be supplied on this contract

Interim requirements

Site/ area	Total Devices Required
Free state	15
East Grid	50
Gauteng	600
Northwest and Limpopo	300
North grid (Mpumalanga)	95
West grid	50
Duvha PS	700
Kriel PS	700
RMDC and Middelburg	30
Eskom Park	50

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Polokwane	200
Witbank	100
Mbombela	100
Matimba	100
Arnot	100
Hendrina	100
Gauteng Dx	401
Camden	120
Joburg Zone	79
Ekurhuleni	75
Vaal Zone	73
Rosherville/Simmerpan area	90
Tshwane Zone	84
Free state	80
Grootvlei	400
Lethabo	640
Tutuka	85
KZN	200
Kendal	728
Koeberg	900
Peaking	250
Total	7495

Estimates of the models for future requirements

Device Model	Type	Estimated Quantities
Entry Level	Desk phone	27 000
Secretarial / PA	Desk phone	5000
Executives	Desk phone	400
Boardroom phones	Conference phone	750
Cordless/wireless phones	Digital Enhanced Cordless Telecommunication (DECT) phones	490

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3 Warranty Coverage

- Standard Warranty must cover five years.
- Hardware: Covers defects in materials and workmanship.
- Exclusions: Damage from misuse, accidents, unauthorized modifications, or third-party software.

4 Service Levels Agreement

- Advance Parts Replacement – in three Business Days
- Provide advanced replacement for any failed hardware component covered under this Service Description Provided.
- Escalation Management: Formal escalation procedures to resolve complex Customer problems
- Incident Management
- Centralized Management tool for: Device inventory, Firmware updates, Test network performance to determine if network conditions impacting conferencing experience. Usage trends and device health. Receive Email notifications of faulty equipment.
- Software updates and upgrades at no Charge