

<b>PURCHASE REQUEST</b>			
Department of Foreign Affairs			
Agency			
Department	<u>OSEC</u>	PR NO. <u>12-76812</u>	Date: <u>28 Dec. 2012</u>
Section	<u>CMISD</u>	SAI NO. _____	Date: _____

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For the official use of DFA

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## PURCHASE OF INTERNET PROTOCOL TELEPHONE UNITS

### TERMS OF REFERENCE

#### I. GENERAL TERMS

The Department of Foreign Affairs shall purchase sixty (60) units of Internet Protocol (IP) Telephones.

#### II. TECHNICAL SPECIFICATIONS

Each IP Telephone unit shall have the following specifications and features:

Data networking	<ul style="list-style-type: none"> <li>• MAC address (IEEE 802.3)</li> <li>• IPv4 (RFC 791)</li> <li>• Address Resolution Protocol (ARP)</li> <li>• DNS: A record (RFC 1706), SRV record (RFC 2782)</li> <li>• Dynamic Host Configuration Protocol (DHCP) client (RFC 2131)</li> <li>• Internet Control Message Protocol (ICMP) (RFC 792)</li> <li>• TCP (RFC 793)</li> <li>• User Datagram Protocol (UDP) (RFC 768)</li> <li>• Real-Time Transport Protocol (RTP) (RFC 1889, 1890)</li> <li>• Real-Time Control Protocol (RTCP) (RFC 1889)</li> <li>• Differentiated Services (DiffServ) (RFC 2475)</li> <li>• Type of service (ToS) (RFC 791, 1349)</li> <li>• VLAN tagging 802.1p/Q: Layer 2 quality of service (QoS)</li> <li>• Simple Network Time Protocol (SNTP) (RFC 2030)</li> </ul>
Voice gateway	<ul style="list-style-type: none"> <li>• SIP version 2 (RFC 3261, 3262, 3263, 3264)</li> <li>• SPCP with the Cisco Unified Communications 500 Series</li> <li>• SIP proxy redundancy: dynamic via DNS SRV, A records</li> <li>• Re-registration with primary SIP proxy server</li> <li>• SIP support in NAT networks (including STUN)</li> <li>• SIPFrag (RFC 3420)</li> <li>• Secure (encrypted) calling via SRTP</li> <li>• Codec name assignment</li> </ul>

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	<ul style="list-style-type: none"> <li>• Voice algorithms:</li> <li>• G.711 (A-law and <math>\mu</math>-law)</li> <li>• G.726 (16/24/32/40 kbps)</li> <li>• G.729 A</li> <li>• G.722</li> <li>• Dynamic payload support</li> <li>• Adjustable audio frames per packet</li> <li>• Dual-tone multi-frequency (DTMF), in-band and out-of-band (RFC 2833) (SIP INFO)</li> <li>• Flexible dial plan support with inter-digit timers</li> <li>• IP address/URI dialing support</li> <li>• Call progress tone generation</li> <li>• Jitter buffer: adaptive</li> <li>• Frame loss concealment</li> <li>• Comfort Noise Generation (CNG)</li> <li>• Voice activity detection (VAD) with silence suppression</li> <li>• Attenuation/gain adjustments</li> <li>• VMWI - Voicemail Waiting Indicator, via NOTIFY, SUBSCRIBE</li> <li>• Caller ID support (name and number)</li> <li>• Third-party call control (RFC 3725)</li> </ul>
Provisioning, administration, and maintenance	<ul style="list-style-type: none"> <li>• Integrated web server provides web-based administration and configuration</li> <li>• Telephone keypad configuration via display menu/navigation</li> <li>• Automated provisioning and upgrade via HTTPS, HTTP, TFTP</li> <li>• Asynchronous notification of upgrade availability via NOTIFY</li> <li>• Nonintrusive in-service upgrades</li> <li>• Report generation and event logging</li> <li>• Statistics transmitted in BYE message</li> <li>• Syslog and debug server records: configurable per line</li> </ul>
Power supply	<ul style="list-style-type: none"> <li>• Switching type (100-240V) automatic</li> <li>• DC output voltage: +5 VDC at 2.0A maximum</li> <li>• Power adapter: 100-240V 50-60 Hz (26-34 VA) AC input</li> </ul>

*Any Comments*

Physical interfaces	<ul style="list-style-type: none"> <li>• Two 10/100BASE-T RJ-45 Ethernet ports (IEEE 802.3)</li> <li>• Handset: RJ-9 connector</li> <li>• Built-in speakerphone and microphone</li> <li>• Headset 2.5mm jack</li> </ul>
Indicator lights/LEDs	<ul style="list-style-type: none"> <li>• Speakerphone on/off button with LED</li> <li>• Headset on/off button with LED</li> <li>• Mute button with LED</li> <li>• Message waiting LED</li> </ul>

### III. WARRANTY

1. All equipment must be brand new, in excellent working condition, and of a reputable brand. Refurbished, reconditioned, or cloned equipment are not acceptable.
2. The Contractor shall guarantee full-replacement of defective equipment within one (1) month after a Certificate of Acceptance has been issued by the DFA.
3. That the manufacturer or at least the distributor of their offered brand / model will provide one (1) year warranty on parts and services to the DFA. A certification to this effect must be provided by the manufacturer / distributor.
4. The Contractor shall train at least five (5) DFA personnel on the operation, configuration, management, and basic troubleshooting of the IP Phones.

### IV. DELIVERY AND PAYMENT

1. The equipment shall be delivered within thirty (30) working days after the signing of the purchase agreement.
2. Payment shall be made within thirty (30) working days after a Certificate of Acceptance has been issued by the DFA and after the Contractor's submission of all necessary documents to claim payment.
3. All fees shall be inclusive of Value Added Tax (VAT) and other lawful charges.

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