

BRAND NAME JUSTIFICATION AND STATEMENT OF WORK

YEASTAR brand VoIP phone system with YEALINK brand VoIP phones have been selected due to significant fact that this exact brand and this exact model are already installed and used by FLACC's regional bureaus all over the country and created VoIP network. 26 of YEASTAR private branches already installed in 25 cities that worked with 1225 YEALINK VoIP phones. Buying this specific brand will allow the same expert efficiently tune them and maintain while purchasing other brand will lead to additional costs of hiring another expert. YEASTAR brand of the VoIP system with phones will expand already existing and set-up VoIP network. YEASTAR brand VoIP phone system with YEALINK brand VoIP phones fully meet required by FLACC characteristics, among which are: high level of security, modularity of systems, cost effective system due to traffic optimizations of voice channels (GSM), high level of fault tolerance, all over the country internal phone network due to all-to-all connection between VoIP phone systems, Yealink Redirection and Provisioning Service (RPS).

Work to be done:

A vendor is required to provide IP-phone system equipment that meets specification listed below.

The price should also include cost of delivery to Kyiv.

The vendor should also provide 3-year warranty with ability to replace critical parts.

Deadline: Requested items should be delivered in 30 days term after contract signed

1. YEASTAR S-100 VOIP PRIVATE BRANCH EXCHANGE (PBX) (BRAND NAME OR EQUAL)

Quantity: 5

SPECIFICATIONS

GENERAL FEATURES	
Automated Attendant (IVR); Attended Transfer; AutoCLIP; Blind Transfer; Blacklist/Whitelist; Call Back; Call Detail Records (CDR); Call Forwarding; Call Monitor; Call Parking; Call Pickup; Call Recording; Call Routing; Call Waiting; Caller ID; Conference; Custom Prompt; Dial by Name; DISA; Distinctive Ringtone; DNIS; Do Not Disturb (DND); Event Center; Email to SMS/SMS to Email; Fax to Email; Follow Me; Paging/Intercom; LDAP; Mobility Extension; Multi-language System Prompt; Multi-language Web GUI; Music on Hold; One Touch Recording; Queue; PIN List; Phone Provisioning; Real-time Status Monitor; Ring Group; SIP Forking; SLA; Speed Dial; Time Condition; User Portal; User Permission; Video Calls; Voicemail; Voicemail to Email; Voicemail Forwarding System	
Users	min 100
Max Concurrent Calls	min 30
Max Analog Ports	min 16
Max BRI Ports	min 16
Max GSM/3G Ports	min 6
VoIP Trunks	min 100
Protocol	SIP (RFC3261), IAX2
Transport Protocol	UDP, TCP, TLS, SRTP
Codec	G711 (alaw/ulaw), G722, G726, G729A, GSM, Speex, ADPCM, iLBC, H263, H263P, H264, MPEG4
DTMF	In-band, RFC4733, RFC2833, SIP INFO
LAN	One (1) × 10/100/1000 Mbps
WAN	One (1) × 10/100/1000 Mbps
IP Services	Static IP, DHCP, VPN, Firewall, VLAN, DDNS, PPPoE, QoS, Static NAT, STUN
Voicemail	10000 min (expandable)
	VPN Server, T.38 Fax, Hot Standby, Phone Provisioning, LDAP Server, Conference Panel
External Storage	SD Card
Electrical	AC 100-240V, 50/60HZ 0.6A max; Power Consumption — 2.1-18.5 W
Mounting	standard 19" rack



Color	Black
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2. YEASTAR S-300 VOIP PRIVATE BRANCH EXCHANGE (PBX) (BRAND NAME OR EQUAL)

Quantity: 1

SPECIFICATIONS



GENERAL FEATURES	
Automated Attendant (IVR); Attended Transfer; AutoCLIP; Blind Transfer; Blacklist/Whitelist; Call Back; Call Detail Records (CDR); Call Forwarding; Call Monitor; Call Parking; Call Pickup; Call Recording; Call Routing; Call Waiting; Caller ID; Conference; Custom Prompt; Dial by Name; DISA; Distinctive Ringtone; DNIS; Do Not Disturb (DND); Event Center; Email to SMS/SMS to Email; Fax to Email; Follow Me; Paging/Intercom; LDAP; Mobility Extension; Multi-language System Prompt; Multi-language Web GUI; Music on Hold; One Touch Recording; Queue; PIN List; Phone Provisioning; Real-time Status Monitor; Ring Group; SIP Forking; SLA; Speed Dial; Time Condition; User Portal; User Permission; Video Calls; Voicemail; Voicemail to Email; Voicemail Forwarding System	
Users	min 300
Max Concurrent Calls	min 60
Max Analog Ports	min 24
Max BRI Ports	min 24
Max GSM/3G Ports	min 6
VoIP Trunks	100
Protocol	SIP (RFC3261), IAX2
Transport Protocol	UDP, TCP, TLS, SRTP
Codec	G711 (alaw/ulaw), G722, G726, G729A, GSM, Speex, ADPCM, iLBC, H263, H263P, H264, MPEG4
DTMF	In-band, RFC4733, RFC2833, SIP INFO
LAN	One (1) × 10/100/1000 Mbps
WAN	One (1) × 10/100/1000 Mbps
IP Services	Static IP, DHCP, VPN, Firewall, VLAN, DDNS, PPPoE, QoS, Static NAT, STUN
Voicemail	10000 min (expandable)
	VPN Server, T.38 Fax, Hot Standby, Phone Provisioning, LDAP Server, Conference Panel
External Storage	SD Card & 2.5 inch SATA HDD
Electrical	AC 100-240V, 50/60HZ 1.8A max; Power Consumption — 5.5-41.2W
Mounting	standard 19" rack
Color	Black

3. YEASTAR GSM MODULE (1 GSM PORT) (BRAND NAME OR EQUAL)

Quantity: 15

SPECIFICATIONS

The GSM is a module with 1 GSM port to terminate GSM network.

It can be used in MyPBX Standard MyPBX Pro MyPBX Enterprise and NeoGate TG200



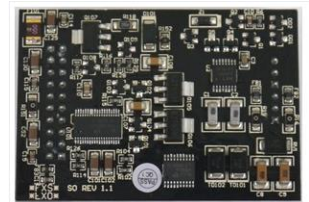
GSM PARAMETERS	
GSM channels	1 channels
Network types:	850/900/1800/1900MHz (Quad-band)
GSM engine	SIMCom
Transmitter power	+33dBm(2W) 850/900MHz +30dBm (1W) 1800/1900M
SIM card	1 SIM per channel small plug-in 3V

4. YEASTAR SO MODULE 1 FXS & 1 FXO PORTS (BRAND NAME OR EQUAL)

Quantity: 10

SPECIFICATIONS

- A module with 1 FXS port and 1 FXO port.
- Unique PSTN Fallback Function
- Make/receive calls even during a system power break down
- It can be used in MyPBX SOHO, MyPBX Standard, MyPBX Pro, MyPBX E1, MyPBX E1 Plus, MyPBX Enterprise and TDM800 Card.



5. YEASTAR D30 DSP EXPANSION MODULE (BRAND NAME OR EQUAL)

Quantity: 2

SPECIFICATIONS

- Yeastar DSP Expansion Module for Yeastar S300 System. Install on the motherboard to expand capacity by 100 extensions and 30 concurrent calls.
- Add 100 VoIP users + 30 concurrent calls
- Yeastar S300 System requires up to 2 modules



6. YEASTAR EX08 MODULE (BRAND NAME OR EQUAL)

Quantity: 10

SPECIFICATIONS

- Yeastar EX08 expansion board supports S300 VoIP PBX, and has 4 onboard module slots and 8 interfaces on the panel.
- Supports up to 4 optional modules/8 ports, including O2, S2, B2, GSM, UMTS, and CDMA modules
- 3 expansion cards required to the S300 system



7. YEALINK SIP-T46S IP PHONE POE (BRAND NAME OR EQUAL)

Quantity: 6
SPECIFICATIONS



AUDIO FEATURES	
HD voice	HD handset, HD speaker
Codecs	G.722, G.711(A/μ), G.723.1, G.729AB, G.726, iLBC, Opus
DTMF:	In-band, Out-of-band(RFC 2833) and SIP INFO
	Full-duplex hands-free speakerphone with AEC; VAD, CNG, AEC, PLC, AJB, AGC
PHONE FEATURES	
16 VoIP accounts; Call hold, mute, DND; One-touch speed dial, hotline; Call forward, call waiting, call transfer; Group listening, SMS, emergency call; Redial, call return, auto answer; 3-way conferencing; Direct IP call without SIP proxy; Ring tone selection/import/delete; Set date time manually or automatically; Dial plan; XML Browser; Action URL/URI; RTCP-XR (RFC3611), VQ-RTCPXR (RFC6035);	
Directory	Load phonebook up to 1000 entries; Black list; XML/LDAP remote phonebook; Intelligent search method; Phonebook search/import/export; Call history: dialed/received/missed/forwarded
IP-PBX Features	Busy Lamp Field (BLF); Bridged Line Appearance(BLA); Anonymous call, anonymous call rejection; Hot-desking; Message Waiting Indicator (MWI); Voice mail; Call park, call pickup; Intercom, paging; Music on hold; Call completion; Call recording;
Display and Indicator	3" 480 x 272-pixel color display with backlight 16 bit depth color; LED for call and message waiting indication; Dual-color (red or green) illuminated LEDs for line status information; 4Wallpaper; Intuitive user interface with icons and soft keys; National language selection; Caller ID with name, number and photo
Feature keys	10 line keys with LED; 10 line keys can be programmed up to 27 various; features (3-page view); 7 features keys: message, headset, hold, mute, transfer, redial, hands-free speakerphone; 4 context-sensitive "soft" keys; 6 navigation keys; Volume control keys; Illuminated mute key; Illuminated headset key; Illuminated hands-free speakerphone key
Interface	Dual-port Gigabit Ethernet; Support Bluetooth headset through USB Dongle; 1xRJ9 (4P4C) handset port; 1xRJ9 (4P4C) headset port; 1XRJ12 (6P6C) EXT port: Supports up to 6 Expansion Modules for an attendant console application; Power over Ethernet (IEEE 802.3af), class 3
OTHER PHYSICAL FEATURES	
	Stand with 2 adjustable angles; Wall mountable
Power consumption (PSU):	1.92-4.93W
Power consumption (PoE):	2.68-7.57W

Management: Configuration	browser/phone/auto-provision; Auto provision via FTP/TFTP/HTTP/HTTPS for mass deploy; Support Redirection and Provisioning Service; Auto-provision with PnP; BroadSoft device management; Zero-sp-touch, TR-069; Phone lock for personal privacy protection; Reset to factory, reboot; Package tracing export, system log
Network and Security	SIP v1 (RFC2543), v2 (RFC3261); Call server redundancy supported; NAT transverse: STUN mode; Proxy mode and peer-to-peer SIP link mode; IP assignment: static/DHCP/PPPoE; HTTP/HTTPS web server; Time and date synchronization using SNTP; UDP/TCP/DNS-SRV(RFC 3263); QoS: 802.1p/Q tagging (VLAN), Layer 3 ToS DSCP; SRTP for voice; Transport Layer Security (TLS); HTTPS certificate manager; AES encryption for configuration file; Digest authentication using MD5/MD5-sess; OpenVPN, IEEE802.1X; IPv6; CDP (Cisco Discovery Protocol)

8. YEALINK LCD EXPANSION MODULE EXP40 (BRAND NAME OR EQUAL)

Quantity: 6
SPECIFICATIONS

The EXP40 Expansion Module for the SIP-T46S, expanding the functional capability of sip phone.



Display	<ul style="list-style-type: none"> • 160x320 graphic LCD with 16-level grayscales • LCD Backlight • Two page views are possible • Different icons for each function shown on the LCD
Features Keys and Indicator	<ul style="list-style-type: none"> • 20 physical keys each with a dual-color LED • 20 additional keys through page switch • 2 independent control keys are used for fast switch pages • Programmable for Shared Line, BLF List, BroadSoft Group, Call Park, Conference, Forward, Group pickup Group listening, LDAP, Pick UP, XML Browser, Zero-SP-Touch
Physical Feature	<ul style="list-style-type: none"> • Wall mountable • Stand with 2 adjustable angles • Expansion module (≤ 2) is powered by the host phone • Supports up to 6 modules daisy-chain • 2xRJ12 (6P6C) ports for data in and out • Applies to Yealink IP Phone
Dimension (W*D*H*T):	127mm*213mm*167mm*45mm

9. YEALINK W52P VoIP PHONE (BRAND NAME OR EQUAL)

Quantity: 10
SPECIFICATIONS



PHONE FEATURES	
Up to 4 simultaneous calls; Up to 5 handsets, Up to 5 VoIP accounts; Handset select for receiving call; Handset and Number select for making call; Paging, Intercom, Auto answer; Call hold, Call transfer; Switching between calls; 3-way conferencing; Call waiting, Mute, DND; Caller ID display, Redial; Anonymous call, Anonymous call rejection; Call forward (Always/Busy/No Answer); Speed dial, Voicemail, Silence; Message Waiting Indication (MWI); Local Phonebook for up to 100 entries (store in the handset); Remote Phonebook; Phonebook search / import / export; Call history (Outgoing/Missed/Accepted); Direct IP call without SIP proxy; Reset to factory, Reboot; Keypad lock, Emergency call; Dial Plan, Music on hold; Broadsoft Directory, BroadSoft Call Log; Broadworks Feature Key Synchronization	
Personalization	9 ringer melodies; Screen Saver, Two kind of color scheme; Multiple languages
Management	Auto-provision via FTP / TFTP / HTTP / HTTPS; Auto-provision with PnP; Configuration: browser / phone / auto-provision; Trace package and system log export
Narrowband codec	G.711μ/A, G.723.1, G.726, G.729AB, iLBC; VAD, CNG, AEC, PLC, AJB
Network Features	SIP v1 (RFC2543), v2 (RFC3261); SNTP/NTP; VLAN (802.1Q and 802.1P); 802.1x, LLDP, PPPoE; STUN Client (NAT Traversal); UDP, TCP; IP Assignment: Static/DHCP
Security	Open VPN; Transport Layer Security (TLS); HTTPS (server / client); SRTP (RFC3711); Digest authentication using MD5; Secure configuration file via AES encryption; Admin / Var / User 3-level configuration mode
Connectors	CAT-iq2.0; 1 x RJ45 10/100M Ethernet port; Power over Ethernet (IEEE 802.3af); Headset jack (2.5 mm)
Physical Features	Range: 50 meters indoor, 300 meters outdoor; 10 hours talk time, 100 hours standby time; 1.8" 128x160 pixels color display; Desktop or wall mountable; LCD backlit, Key backlit; Energy-saving ECO mode/ECO Mode+; 12 key numerical keypad, 5 navigation keys 2 softkeys, 6 function keys, 6 shortcut keys; 3 LEDs on Base: 1 x power, 1 x Network, 1 x Call

10. YEALINK SIP-T21P E2 VoIP PHONE (BRAND NAME OR EQUAL)

Quantity: 20

SPECIFICATIONS

AUDIO FEATURES	
HD voice	HD voice: HD handset, HD speaker
Codecs	Opus, G.72, G.711(A/μ), G.729AB, G.726, iLBC
DTMF:	In-band, Out-of-band(RFC 2833) and SIP INFO
	Full-duplex hands-free speakerphone with AEC; VAD, CNG, AEC, PLC, AJB, AGC
PHONE FEATURES	
2 VoIP accounts; Call hold, mute, DND; One-touch speed dial, hotline; Call forward, call waiting, call transfer; Group listening, SMS, emergency call; Redial, call return, auto answer; Local 3-way conferencing; Direct IP call without SIP proxy; Ring tone selection/import/delete; Set date time manually or automatically; Dial plan; XML Browser, action URL/URI; Integrated screenshots; RTCP-XR; Enhanced DSS Key	
Directory	Local phonebook up to 1000 entries; Black list; XML/LDAP remote phonebook; Smart dialing; Phonebook search/import/export; Call history: dialed/received/missed/forwarded
IP-PBX Features	Busy Lamp Field (BLF); Bridged Line Appearance (BLA); Anonymous call, anonymous call rejection; Hot-desking, voice mail; Flexible seating; Call park, call pickup; Executive and Assistant; Centralized call recording; Visual voice mail; Call recording
Display and Indicator	132 x 64-pixel graphical LCD with backlight; LED for call and message waiting indication; Dual-color (red or green) illuminated LEDs for line status information; Intuitive user interface with icons and soft keys; Multilingual user interface; Caller ID with name and number; Power saving
Feature keys	2 line keys with LED; 6 features keys: message, headset, redial, transfer, mute, hands-free speakerphone; 6 navigation keys; Volume control keys
Interface	2 x RJ45 10/100M Ethernet ports; Power over Ethernet (IEEE 802.3af), class 2; 1 x RJ9 (4P4C) handset port; 1 x RJ9 (4P4C) headset port
OTHER PHYSICAL FEATURES	
	Wall mountable
Power consumption (PSU):	0.8-1.4W
Power consumption (PoE):	1.3-1.8W
Management: Configuration	Configuration: browser/phone/auto-provision; Auto provision via FTP/TFTP/HTTP/HTTPS for mass deploy; Auto-provision with PnP; Zero-sp-touch, TR-069; Phone lock for personal privacy protection; Reset to factory, reboot; Package tracing export, system log
Network and Security	SIP v1 (RFC2543), v2 (RFC3261); Call server redundancy supported; NAT traversal: STUN mode; Proxy mode and peer-to-peer SIP link mode; IP assignment: static/DHCP; HTTP/HTTPS web server; Time and date synchronization using SNTP; UDP/TCP/DNS-SRV (RFC 3263); QoS: 802.1p/Q tagging (VLAN), Layer 3 ToS DSCP; SRTP for voice; Transport Layer Security

	(TLS); HTTPS certificate manager; AES encryption for configuration file; Digest authentication using MD5/MD5-sess; OpenVPN, IEEE802.1X; IPv6; LLDP/CDP/DHCP VLAN; ICE
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