**Příloha č. 1 - Technická specifikace**

**Rozšíření stávajícího telekomunikačního systému na zbývajících územních pracovištích KHS, včetně ústředí v Praze**

Jedná se o rozšíření stávajícího telefonního řešení, které naše organizace již používá na pěti územních pracovištích. Již provozované telefonní  řešení sestává na každém územním pracovišti z IP telefonních přístrojů pro zaměstnance a z tzv. sekretářských telefonních přístrojů, které jsou určeny pro přepojování telefonních hovorů, a které jsou rozšířeny pro usnadnění obsluhy tzv. externím přídavným panelem pro jednoduché přepojování. Telekomunikační provoz zahrnuje realizaci telefonních hovorů interních, externích, včetně požadavků na přesměrování telefonní hovorů, různé možnosti prozvánění a provozu automatického hlasového asistenta, možnosti tarifikace a výpisů, zajištění interního a externího helpdesku a servisu (je např. možné využívat centrální a dálkový import konfigurací, jednotné telefonní adresáře, funkcionalitu a podporu, jednotné konfigurace aktivních prvků počítačových sítí apod.), integraci dalších zařízení, jako např. tzv. vrátníků u vstupních dveří.

**Zadavatel požaduje minimálně 2 reference na dodávku podobného rozsahu - dodávka IP telefonního řešení o více než 200 telefonech.**

Zadavatel požaduje dodávku níže uvedených zařízení **od dodavatele/distributora, který je oprávněn níže požadované zboží prodávat na území České republiky.**

Tím je zaručeno, že níže uvedená **zařízení od dodavatele/distributora jsou určena pro český trh, splňují zejména technické normy a zároveň případná smluvní ujednání (např. omezení či zákaz prodeje nějakého výrobku v konkrétní zemi apod.). Dále dodavatel/distributor musí garantovat originalitu zboží a zároveň záruku, reklamace i pozáruční servis.**

**Zboží musí být nové a nepoužité.**

**Zadavatel dále ještě požaduje konfiguraci níže uvedených zařízení, konfiguraci znaků na displeji v českém jazyce a jejich uvedení do provozu.**

**Uchazeč vyplní žlutě označená pole.**

**Cenová nabídka uchazeče:**

Uchazeč vyplní **Přílohu č. 2 – Cenová nabídka**

**TECHNICKÁ SPECIFIKACE**

**1/ Telefonní přístroj – varianta A**

**Počet kusů: 205**

**Zařízení: základní IP telefon s barevným LCD a 4 řádky**

**Základní popis:**

• HD Voice

• 2.4” 320 x 240-pixel color display with backlight

• Dual-port Gigabit Ethernet

• PoE support

• Opus codec support

• Up to 4 SIP accounts

• Local 5-way conferencing

• Support EHS Wireless Headset

• Unified Firmware

• Support YDMP/YMCS

• Stand with 2 adjustable angles

• Wall mountable

**Technická specifikace:**

|  |  |  |
| --- | --- | --- |
| **Položka** | **Parametr** | Splňuje ANO / NE |
|  | **Audiofunkce** | ANO |
| 1 | HD voice: HD handset, HD speaker | ANO |
| 2 | Smart Noise Filtering | ANO |
| 3 | Wideband codec: Opus, G.722 | ANO |
| 4 | Narrowband codec: G.711(A/μ), G.723.1, G.729,G.729A, G.726, iLBC | ANO |
| 5 | DTMF: In-band, Out-of-band (RFC 2833) and SIPINFO | ANO |
| 6 | Full-duplex hands-free speakerphone with AEC | ANO |
| 7 | VAD, CNG, AEC, PLC, AJB, AGC | ANO |
|  | **Telefonní funkce** | ANO |
| 8 | 4 VoIP accounts  | ANO |
| 9 | Call hold, mute, DND | ANO |
| 10 | One-touch speed dial, hotline | ANO |
| 11 | Call forward, call waiting, call transfer  | ANO |
| 12 | Group listening, SMS, emergency call | ANO |
| 13 | Redial, call return, auto answer | ANO |
| 14 | Local 5-way conferencing | ANO |
| 15 | Direct IP call without SIP proxy | ANO |
| 16 | Ring tone selection/import/delete | ANO |
| 17 | Set date time manually or automatically | ANO |
| 18 | Dial plan • XML Browser, action URL/URI  | ANO |
| 19 | Integrated screenshots  | ANO |
| 20 | RTCP-XR, VQ-RTCPXR | ANO |
| 21 | Enhanced DSS Key | ANO |
|  | **Adresář** | ANO |
| 22 | Loal phonebook up to 1000 entries | ANO |
| 23 | Black list | ANO |
| 24 | XML/LDAP remote phonebook | ANO |
| 25 | Smart dialing | ANO |
| 26 | Phonebook search/import/export | ANO |
| 27 | Call history: dialed/received/missed/forwarded | ANO |
|  | **Vlastnosti IP-PBX** | ANO |
| 28 | Busy Lamp Field (BLF), Bridged Line Apperance(BLA) | ANO |
| 29 | Anonymous call, anonymous call rejection | ANO |
| 30 | Hot-desking, voice mail | ANO |
| 31 | Flexible seating | ANO |
| 32 | Call park, call pickup | ANO |
| 33 | Executive and Assistant | ANO |
| 34 | Centralized call recording | ANO |
| 35 | Visual voice mail | ANO |
| 36 | Call recording | ANO |
|  | **Displej a indikátor** | ANO |
| 37 | 2.4” 320 x 240-pixel color display with backlight | ANO |
| 38 | 16 bit depth color | ANO |
| 39 | LED for call and message waiting indication | ANO |
| 40 | Dual-color (red or green) illuminated LEDs for line status information | ANO |
| 41 | Wallpaper | ANO |
| 42 | Intuitive user interface with icons and soft keys | ANO |
| 43 | Multilingual user interface | ANO |
| 44 | Caller ID with name and number | ANO |
| 45 | Screensaver | ANO |
| 46 | Power saving | ANO |
|  | **Tlačítka** | ANO |
| 47 | 4 line keys with LED | ANO |
| 48 | 4 line keys can be programmed up to 12 paperless DSS keys (4-page view) | ANO |
| 49 | 5 features keys: message, headset, redial, mute, hands-free speakerphone | ANO |
| 50 | 6 navigation keys | ANO |
| 51 | Volume control keys | ANO |
|  | **Rozhraní** | ANO |
| 52 | Dual-port Gigabit Ethernet | ANO |
| 53 | Power over Ethernet (IEEE 802.3af), class 2 | ANO |
| 54 | 1 x RJ9 (4P4C) handset port | ANO |
| 55 | 1 x RJ9 (4P4C) headset port  | ANO |
|  | **Další vlastnosti** | ANO |
| 56 | Color: Classic Grey | ANO |
| 57 | Wall mountable | ANO |
| 58 | External AC adapter AC 100~240V input and DC 5V/600mA output | ANO |
| 59 | Power consumption (PSU): 2-3W | ANO |
| 60 | Power consumption (PoE): 3.5-5W | ANO |
| 61 | Dimension max. (W\*D\*H\*T): 212mm\*186mm\*146mm\*42mm | ANO |
| 62 | Operating humidity: 10~95% | ANO |
| 63 | Operating temperature: -10~50°C (+14~122°F) | ANO |
|  | **Management** | ANO |
| 64 | Configuration: browser/phone/auto-provision | ANO |
| 65 | Auto provision via FTP/TFTP/HTTP/HTTPS for mass deploy | ANO |
| 66 | Auto-provision with PnP | ANO |
| 67 | Zero-sp-touch, TR-069 | ANO |
| 68 | Phone lock for personal privacy protection | ANO |
| 69 | Reset to factory, reboot | ANO |
| 70 | Package tracing export, system log  | ANO |
|  | **Síť a zabezpečení** | ANO |
| 71 | SIP v1 (RFC2543), v2 (RFC3261) | ANO |
| 72 | Call server redundancy supported | ANO |
| 73 | NAT traversal: STUN mode | ANO |
| 74 | Proxy mode and peer-to-peer SIP link mode | ANO |
| 75 | IP assignment: static/DHCP | ANO |
| 76 | HTTP/HTTPS web server | ANO |
| 77 | Time and date synchronization using SNTP | ANO |
| 78 | UDP/TCP/DNS-SRV (RFC 3263) | ANO |
| 79 | QoS: 802.1p/Q tagging (VLAN), Layer 3 ToS DSCP | ANO |
| 80 | SRTP for voice | ANO |
| 81 | Transport Layer Security (TLS) | ANO |
| 82 | HTTPS certificate manager | ANO |
| 83 | AES encryption for configuration file | ANO |
| 84 | Digest authentication | ANO |
| 85 | OpenVPN, IEEE802.1X | ANO |
| 86 | IPv6 | ANO |
| 87 | LLDP/CDP/DHCP VLAN | ANO |
| 88 | ICE | ANO |

**2/ Telefonní přístroj – varianta B**

**Počet kusů: 6**

**Zařízení: manažerský IP telefon s barevným TFT displejem s vysokým rozlišením a možností rozšíření ovládacího panelu**

**Základní popis:**

• 4.3" 480 x 272-pixel color display with backlight

• Opus codec support

• Dual USB ports

• Dual firmware images

• T4U Auto-P template unified

• T4U firmware unified

• Up to 16 SIP accounts

• Dual-port Gigabit Ethernet

• PoE support

• USB headset and EHS support

• Wi-Fi via WF40/WF50

• Bluetooth via BT40/BT41

• USB recording

• Supports color-screen expansion modules

• Stand with two adjustable angles

• Wall mountable

**Technická specifikace:**

|  |  |  |
| --- | --- | --- |
| **Položka** | **Parametr** | **Splňuje ANO / NE** |
|  | **Audiofunkce** | ANO |
| 1 | HD voice: HD handset, HD speaker | ANO |
| 2 | Hearing aid compatible (HAC) handset | ANO |
| 3 | Acoustic Shield | ANO |
| 4 | Codecs: AMR-WB (optional), AMR-NB (optional), Opus, G.722, G.711(A/µ), G.723.1, G.729AB, G.726, iLBC | ANO |
| 5 | DTMF: In-band, Out-of-band (RFC 2833) and SIP INFO  | ANO |
| 6 | Full-duplex hands-free speakerphone with AEC | ANO |
| 7 | VAD, CNG, AEC, PLC, AJB, AGC | ANO |
|  | **Telefonní funkce** | ANO |
| 8 | 16 VoIP accounts | ANO |
| 9 | Call hold, mute, DND | ANO |
| 10 | One-touch speed dial, hotline  | ANO |
| 11 | Call forward, call waiting, call transfer | ANO |
| 12 | Group listening, SMS, emergency call | ANO |
| 13 | Redial, call return, auto answer | ANO |
| 14 | 10-way conferencing | ANO |
| 15 | Direct IP call without SIP proxy | ANO |
| 16 | Ring tone selection/import/delete | ANO |
| 17 | Set date time manually or automatically | ANO |
| 18 | Dial plan, XML Browser, Action URL/URI | ANO |
| 19 | RTCP-XR (RFC3611), VQ-RTCPXR (RFC6035) | ANO |
| 20 | USB port (2.0 compliant) for: - Bluetooth earphone through BT40/BT41 - Contact synchronization through BT40/BT41 - Wi-Fi through WF40/WF50 - USB call recording through USB flash drive - USB headset - Expansion Module EXP43 - Wireless Headset Adapter EHS40 | ANO |
| 21 | Enhanced DSS key | ANO |
|  | **Adresář** | ANO |
| 22 | Local phonebook up to 1000 entries | ANO |
| 23 | Black list | ANO |
| 24 | XML/LDAP remote phonebook | ANO |
| 25 | Smart dialing | ANO |
| 26 | Phonebook search/import/export | ANO |
| 27 | Call history: dialed/received/missed/forwarded | ANO |
|  | **Vlastnosti IP-PBX** | ANO |
| 28 | Busy Lamp Field (BLF)  | ANO |
| 29 | Bridged Line Apperance (BLA)  | ANO |
| 30 | Anonymous call, anonymous call rejection  | ANO |
| 31 | Hot-desking, voice mail  | ANO |
| 32 | Flexible seating  | ANO |
| 33 | Call park, call pickup  | ANO |
| 34 | Executive and Assistant  | ANO |
| 35 | Centralized call recording  | ANO |
| 36 | Visual voice mail  | ANO |
| 37 | Call recording  | ANO |
|  | **Displej a indikátor** | ANO |
| 38 | 4.3" 480 x 272-pixel color display with backlight | ANO |
| 39 | 16 bit depth color  | ANO |
| 40 | LED for call and message waiting indication  | ANO |
| 41 | Dual-color (red or green) illuminated LEDs for line status information  | ANO |
| 42 | Wallpaper  | ANO |
| 43 | Intuitive user interface with icons and soft keys  | ANO |
| 44 | Multilingual user interface  | ANO |
| 45 | Caller ID with name and number  | ANO |
| 46 | Screensaver  | ANO |
| 47 | Power saving  | ANO |
|  | **Tlačítka** | ANO |
| 48 | 10 line keys with LED  | ANO |
| 49 | 10 line keys can be programmed up to 27 paperless DSS keys (3-page view)  | ANO |
| 50 | 7 features keys: message, headset, hold, mute, transfer, redial, hands-free speakerphone  | ANO |
| 51 | 4 context-sensitive “soft” keys  | ANO |
| 52 | 6 navigation keys  | ANO |
| 53 | Volume control keys  | ANO |
| 54 | Illuminated mute key  | ANO |
| 55 | Illuminated headset key  | ANO |
| 56 | Illuminated hands-free speakerphone key  | ANO |
|  | **Rozhraní** | ANO |
| 57 | Dual-port Gigabit Ethernet  | ANO |
| 58 | Power over Ethernet (IEEE 802.3af), class 3  | ANO |
| 59 | 2 x USB port (2.0 compliant)  | ANO |
| 60 | 1 x RJ9 (4P4C) handset port  | ANO |
| 61 | 1 x RJ9 (4P4C) headset port  | ANO |
|  | **Další vlastnosti** | ANO |
| 62 | Color: Classic Grey  | ANO |
| 63 | Stand with 2 adjustable angles  | ANO |
| 64 | Wall mountable  | ANO |
| 65 | External Yealink AC adapter (optional): AC 100~240V input and DC 5V/2A output  | ANO |
| 66 | USB output currency: 5V 1A  | ANO |
| 67 | Power consumption (PSU): 1.2-3.0W  | ANO |
| 68 | Dimension max. (W\*D\*H\*T): 244mm\*213mm\*185mm\*54mm  | ANO |
| 69 | Operating humidity: 10~95% | ANO |
| 70 | Operating temperature: -10~50°C (+14~122°F) | ANO |
|  | **Management**  | ANO |
| 71 | Configuration: browser/phone/auto-provision  | ANO |
| 72 | Auto provision via FTP/TFTP/HTTP/HTTPS for mass deploy  | ANO |
| 73 | Auto-provision with PnP  | ANO |
| 74 | Broadsoft device management  | ANO |
| 75 | Zero-sp-touch, TR-069  | ANO |
| 76 | Phone lock for personal privacy protection  | ANO |
| 77 | Reset to factory, reboot  | ANO |
| 78 | Package tracing export, system log  | ANO |
|  | **Síť a zabezpečení** | ANO |
| 79 | SIP v1 (RFC2543), v2 (RFC3261)  | ANO |
| 80 | Call server redundancy supported  | ANO |
| 81 | NAT traversal: STUN mode  | ANO |
| 82 | Proxy mode and peer-to-peer SIP link mode  | ANO |
| 83 | IP assignment: static/DHCP  | ANO |
| 84 | HTTP/HTTPS web server  | ANO |
| 85 | Time and date synchronization using SNTP  | ANO |
| 86 | UDP/TCP/DNS-SRV(RFC 3263)  | ANO |
| 87 | QoS: 802.1p/Q tagging (VLAN), Layer 3 ToS DSCP  | ANO |
| 88 | SRTP for voice  | ANO |
| 89 | Transport Layer Security (TLS)  | ANO |
| 90 | HTTPS certificate manager  | ANO |
| 91 | AES encryption for configuration file  | ANO |
| 92 | Digest authentication  | ANO |
| 93 | OpenVPN, IEEE802.1X  | ANO |
| 94 | IPv6, LLDP/CDP/DHCP VLAN, ICE  | ANO |

**3/ Rozšiřující ovládací panel k IP telefonnímu přístroji**

**Počet kusů: 7**

**Zařízení:** Rozšiřující ovládací panel k IP telefonnímu přístroji

**Základní popis:** Externí rozšiřující modul s barevným displejem a tlačítky přímé volby, kompatibilní s IP telefonním přístrojem dle specifikace uvedené v bodu 2/

**Technická specifikace**

|  |  |  |
| --- | --- | --- |
| **Položka** | **Parametr** | **Splňuje ANO / NE** |
| 1 | Large 4.3-inch color-screen LCD  | ANO |
| 2 | 16 bit depth color | ANO |
| 3 | Three page views are possible | ANO |
| 4 | 20 physical keys each with a dual-color LED | ANO |
| 5 | 40 additional keys through page switch | ANO |
| 6 | Programmable for shared line, BLF List, call park, conference, forward, group pickup, group listening, LDAP, XML Browser... | ANO |

Výše uvedeným parametrům nejlépe odpovídá model Yealink EXP43 - Color Expansion Module.

**4/ Bezdrátový telefonní přístroj**

**Počet kusů: 2**

**Zařízení: bezdrátový telefonní přístroj DECT – báze + ručka**

**Základní popis:**

• Up to 35 hours talk time (in ideal conditions)

• Up to 400 hours standby time (in ideal conditions)

• HD voice and FNR (Flexible Noise Reduction)/Noise Cancellation

• Headset connection via 3.5 mm jack

• Sturdy and reliable belt clip to move discretionarily

**Technická specifikace**

|  |  |  |
| --- | --- | --- |
| **Položka** | **Parametr** | **Splňuje ANO / NE** |
|  | **Display** | ANO |
| 1 | 1.8’’ 128x160 TFT color screen | ANO |
| 2 | Intuitive user interface with icons and soft keys | ANO |
| 3 | Caller ID with name and number | ANO |
| 4 | Notification Light: voice mail, missed call | ANO |
| 5 | Date & time (manual/auto synchronization) | ANO |
| 6 | Screen saver | ANO |
| 7 | Multilingual user interface | ANO |
| 8 | Keypad backlight | ANO |
|  | **Funkce telefonu** | ANO |
| 9 | Up to 2 simultaneous calls per handset | ANO |
| 10 | Handset select for receiving call | ANO |
| 11 | Handset and Number select for making call | ANO |
| 12 | Auto intercom, auto answer | ANO |
| 13 | 3-way conference | ANO |
| 14 | Call forward: Always/Busy/No Answer | ANO |
| 15 | DND | ANO |
| 16 | Call waiting, mute, hold | ANO |
| 17 | Call transfer | ANO |
| 18 | Swap between calls | ANO |
| 19 | Redial | ANO |
| 20 | Speed dial | ANO |
| 21 | Voice mail | ANO |
| 22 | Silence | ANO |
| 23 | Dial plan: Replace Rule/Area Code/Block Out | ANO |
| 24 | Keypad lock, emergency call | ANO |
| 25 | 100 phone book memory (store in the base) | ANO |
| 26 | Remote phonebook, LDAP, XML phonebook | ANO |
| 27 | Phonebook search, block list | ANO |
| 28 | Call history: All/Placed/Missed/Received (up to100 entries) | ANO |
| 29 | Direct IP call without SIP proxy | ANO |
| 30 | Reset to factory, reboot | ANO |
| 31 | Anonymous call, Anonymous call rejection | ANO |
| 32 | OTA (Over-The-Air) upgrade Voice Features | ANO |
|  | **Hlasové funkce** | ANO |
| 33 | Full-duplex speakerphone | ANO |
| 34 | HD audio | ANO |
| 35 | Hearing Aid Compatibility (HAC) compliant | ANO |
| 36 | Frequency response—100 Hz–7 kHz | ANO |
| 37 | FNR (Flexible Noise Reduction)/Noise Cancellation | ANO |
| 38 | Receiver volume control: 5 steps | ANO |
| 39 | Ringer volume control: 5 steps+off | ANO |
| 40 | 9 ringer melodies | ANO |
| 41 | Multiple advisory tones | ANO |
| 42 | Acoustic warning for low battery status | ANO |
| 43 | DTMF | ANO |
|  | **Další parametry** | ANO |
| 44 | Handset Size Max.:144.5 mm x 48 mm x 21 mm | ANO |
| 45 | Handset Weight Max.: 112 g | ANO |
| 46 | Color: Space Gray | ANO |
| 47 | Battery: 1010 mAh, Lithium-ion, 3.7 V, 3.73 WH | ANO |
| 48 | Up to 35 hours of talk time (in ideal condtions) | ANO |
| 49 | Up to 400 hours of standby time (in ideal coditions) | ANO |
| 50 | Headset jack (3.5 mm) | ANO |
| 51 | Charger: DC 5V/0.6A Output | ANO |
| 52 | Power Adapter:- Input: 100-240 V ~ 50/60 Hz, 0.2 A- Output: 5 V, 0.6 A | ANO |
| 53 | Backlit keypad with 25 keys:- Standard ITU telephone keypad, 12 keys, 4x3, with star and pound key- 5 navigation keys (left, right, up, down, OK)- 2 softkeys- 6 function keys (Speaker, message, Off-hook, Cancel, TRAN, Mute)- 6 shortcut keys | ANO |
| 54 | Operating humidity: 10-95% | ANO |
| 55 | Operating temperature: 0 to 40°C (+32 to 104°F) | ANO |
| 56 | Storage temperature: -30 to 70°C (-22 to +158°F) DECT | ANO |
| 57 | Frequency bands:1880 – 1900 MHz (Europe), 1920 – 1930 MHz (US), 1902 – 1906 MHz (THA) | ANO |
| 58 | DECT Range:- Up to 50 meters indoor (in ideal conditions)- Up to 300 meters outdoor (in ideal conditions) | ANO |
| 59 | DECT Standards: CAT-iq2.0 | ANO |