



المؤسسة العامة للرعاية السكنية
Public Authority for Housing Welfare

كراسة المناقصات لرفع مستوى نظام الاتصالات الهاتفية في
المؤسسة العامة للرعاية السكنية
أغسطس 2021

Request for Proposal

Upgrading Public authority of housing
welfare telephony system

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المقدمة

تم إنشاء المؤسسة العامة للرعاية السكنية ("PAHW") وفقاً للقانون (47) لعام 1993 لتوفير بدائل مختلفة للرعاية السكنية للمواطنين المؤهلين لتلك الرعاية. تنفذ الهيئة سياسات الإسكان الحكومي وتشكل توجهاتها جزءاً لا يتجزأ من النظام الاقتصادي والاجتماعي لدولة الكويت. مع ارتفاع الطلب لزيادة معدل تنفيذ المشاريع، تقدم استراتيجية ومشاريع المؤسسة العامة للرعاية السكنية مستوى أعلى من التفاعل والشراكة بين القطاعين العام والخاص.

تخطط الهيئة العامة للرعاية السكنية (PAHW) لتحديث وتوسيع النظام الحالي لبدالة الإتصالات (PBX) في مكتبها الرئيسي في جنوب السرة للعمل على تكنولوجيا (IP Telephony) و (Analogy) في نفس الوقت. الهدف الرئيسي لهذه الكراسة (RFP) هو استبدال وتوسعة سعة نظامنا القديم بنظام إتصال هاتفي جديد هجين يخلط بين تقنية (IP Telephony) و (Analog).

أهداف المشروع

- تتوقع المؤسسة العامة للرعاية السكنية أن تلي عروض العطاء ما يلي:
- تقديم بدالة تسمح بالاتصالات مع المؤسسة العامة للرعاية السكنية بتقنية هاتفية هجينة مكونة من تقنيتي (IP Telephony) و (Analog) تكون عالية الموثوقية وقابلة للتوسع في المستقبل.
 - تلبية المعايير العالمية في صناعة الاتصالات من حيث إستمرارية الاتصالات (high availability) عن طريق نظام لإدارة الاتصالات.
 - تقديم نظام وهيكلية إتصالات قابله للتطوير وموثوقه وقابله للتوسع.

المصنعين المعتمدين

يجب أن يكون لمقدم العطاء شراكة صالحة لحله المقترح مع أحد الشركات العالمية التالية:

- ميتل (كندا)
- أفايا (الولايات المتحدة الأمريكية)
- سيسكو (الولايات المتحدة الأمريكية)

نطاق المشروع

- يشمل نطاق المشروع النقاط الرئيسية التالية:
- إجراء المسح الفني للتأكد من أن العرض يتناسب مع حاجة المؤسسة العامة للرعاية السكنية.
 - توريد وتركيب وتشغيل وصيانة النظام الهاتفي المقترح المطابق لجميع المواصفات والمتطلبات الخاصة بكل مكون من مكونات هذا النظام.

- توريد وتركيب وتشغيل وصيانة IP Operator Console ومجموعات IP Telephony إلى الموقع المعين المحدد في المتطلبات والتصميم مع ضمان أعلى جودة للصوت.
- إجراء تدريب (برامج وأجهزة) للنظام المعروض للموظفين المعنيين في المؤسسة العامة للرعاية السكنية.
- تقديم مجموعة كاملة من كتيبات الإدارة والصيانة.
- منح 33 شهر للدعم المحلي.
- توفير 33 شهر لضمان البرنامج ويجب تقديم خطاب من الشركة المصنعة.
- تقديم ضمان 33 شهر على النظام والهواتف.
- يجب أن يكون لنظام البدالة الهاتفي فترة انتهاء صلاحية ونهاية دعم لا تقل عن 10 سنوات من تاريخ تقديم الاقتراح.
- يجب أن يكون لأجهزة الهاتف المقترحة فترة انتهاء صلاحية ونهاية دعم لا تقل عن 5 سنوات من تاريخ تقديم الاقتراح.
- يجب تقديم خطاب إثبات من الشركات المصنعة تثبت فترة الدعم القصوى التي تلتزم بها تلك الشركات لجميع مكونات الحل.

1. INTRODUCTION

The Public Authority for Housing Welfare ("PAHW") was established in accordance with Law (47) of 1993 to provide different housing welfare alternatives for eligible citizens. The Authority implements government-housing policies while its directions form an integral part of the economic and social system of the State of Kuwait. With a higher demand to increase the rate of implementation, PAHW's strategy and projects introduce a higher level of public- private interaction and partnership; encouraging real estate developers to further interact with its plans and projects.

Public Authority for Housing Welfare (PAHW) is planning to upgrade and expand the Existing PBX system in its head office in South Surra to worked with both IP Telephony and anology technology technologies. The key objective of this Request for Proposal (RFP) is replace our old legacy system and new Hybrid Telephony System.

2. SUMMARY OF REQUIREMENT

All tenders submitted in response to this RFP must contain appropriate response and documentation with respect to the requirements specified in this document. Tenders shall provide a point-by-point response to each requirement in this RFP. The tenderer shall describe the system solution and how the separate elements are interconnected to form a complete solution.

The tenderer may also include any additional information of importance for the evaluation of the tenders.

3. APPROVED MANUFACTURERS

Bidder should have valid partnership for his proposed solution with one of the following vendors:

- Mitel (Canada)
- Avaya (USA)
- Cisco (USA)

4. PROJECT OBJECTIVE

PAHW is expecting the bidding proposal to satisfy the following:

- Introduction of a highly reliable and extendable Hybrid telephony Architecture.
- Meeting industry standard in terms of high availability for the Communication manager.
- System that is scalable, reliable, and expandable.

5. PROJECT SCOPE

Project scope includes below key points:

- Conduct Technical survey to ensure the proposal fits the need of PAHW.
- Supply, install, commission, and maintain the proposed Telephony System complying with all the specifications and requirements of each component of that system.
- Supply, install, commission, and maintain the IP Operator Console, IP Telephony Sets to designated location specified in the requirements and the design ensuring highest audio quality.
- Conduct training (software and hardware) of the offered system for the concerned staff of PAHW.
- Deliver a complete set of Administration and Maintenance Manuals.
- Provide 33 months for local support.
- Provide 33 months for software assurance and letter from manufacture must be submitted.
- Provide 33 months warranty for the system and the phones.
- The Telephony system should have an end-of-life and end-of-support span of at least 10 years from the date of proposal submission. A proof letter from the vendor of life and support span time of all solution components should be submitted.
- The Phone sets should have an end-of-life and end-of-support span of at least 5 years from the date of proposal submission. A proof letter from the vendor of life and support span time of all solution components should be submitted.
- A letter of proof must be submitted from manufacturers proving the maximum support period to which they are committed to all components of the solution

6. BIDDER QUALIFICATIONS

- Bidder should submit a copy of valid Central Agency for Information Technology (CAIT) certification.
- Bidder must be a Vendor Partner and copy of the partnership must be submitted.
- Bidder must have at least five (5) years' experience in installation and maintenance of telephony systems.
- Bidder should have at least two Certified Engineers related to the proposed solution and holding a valid highest certification and copy of the certificates should be submitted.
- Bidder should assign at least one Certified PMP® (Project Management Professional) Project Manager for the project. A copy of PMI-PMP certificate must be submitted showing the verifiable PMP® Number.
- Bidder must be accredited by the International Organization for Standardization (ISO) with the following valid certificates and copies of these certificates must be submitted with his submittal:
 - ISO 9001:2015 Quality Management System
 - ISO 37001:2016 Anti-Bribery Management Systems
- Bidders may submit any of their subcontractor documents to satisfy all the bidder qualification's conditions mentioned above.

7. TELEPHONY SYSTEM SPECIFICATION

Public Authority for Housing Welfare plans to install a new IP Telephony System (IPTS) network to support its main and remote sites with Survivable Branch Node capabilities.

The guiding principle in the design of the communication network is that digital and analogue lines of different types will be used in the network as well as data links such as IP, providing accessibility to all potential users.

The voice communications infrastructure shall provide a high level of service, resilience, and availability.

Dedicated local IPTS call telephony servers must be installed at the main site and at all major remote sites. All proposed call telephony servers must independently support all generic software features for the proposed IPTS model.

The remote servers shall be configured as survivable remotes behind the main IPTS call server with local PSTN trunk services.

For minor sites, where minor is generally defined as sites with less than 25 users where no mission critical PAHW services are handled, the offered solution may consist of remote IP telephones that are registered by the main site.

In particular, the architecture of the solution shall be designed to be highly resilient with multiple servers. The core equipment shall be specially distributed to protect against the loss of any single location.

The proposed system solution must provide a Single System Image across all sites.

7.1 KEY FEATURES OF THE SYSTEM:

- Scalability up to 5,000 users using a mix of IP, analog, digital and mobility users.
- Open server architecture - System should run on off-the-shelf operating systems and commercially available hardware servers.
- The Telephony System should be server-based IP-PBX, based on the Linux operating system, an open-source operating system capable of running real-time applications such as telephony.
- The Telephony system should be embedded with Media Gateway Unit providing DSP resources, access to the traditional PSTN network with a primary function is to perform the transcoding between TDM, and IP/SIP based endpoints in the Telephony System network.
- The Gateway Unit should have at least 4 E1 PRI ports (3 Active + 1 Spare).
- Business class telephony features with a comprehensive telephony feature set for medium and large enterprises.

- Full suite of applications, including attendant console, Collaboration Management suite and Advanced Messaging voice mail and Unified Messaging suite, enables businesses to streamline costs, be more productive, and better serve.
- High Availability – System should provide native high availability by supporting server redundancy.
- Session Border Controller (SBC), the system should be equipped with High Availability SBC for securing all SIP termination
- It shall be possible to connect the Telephony Servers to two (2) LANs so that if one LAN fails the other will continue to serve the operations.
- The telephony system shall be capable of supporting extension number ranges commencing with any digit 0-9.
- The Telephony System shall be capable of supporting up to 10-digit numbering.
- The Telephony System shall be capable of supporting 1 to 5-digit trunk access codes commencing with the digits 0, 7, 8, and 9.
- The Telephony System shall be capable of supporting up to 5-digit site access codes (Location Codes).
- The solution shall support hot line extensions that automatically dial a previously defined number when the handset is lifted
- The solution shall support delayed hot line extensions (except SIP) that automatically dial a previously defined number if no digits are dialed within 5 seconds.
- The solution shall provide a facility that allows any user to define a “ring list” with minimum 4 answering positions to be alerted in series. This facility must be available for all types of extensions.

7.2 FEATURES AND FACILITIES:

- Hunt Groups (Cyclic)
- Hunt Groups (Sequential)
- Hunt Groups (longest free)
- Pick Up Groups
- Multiple Operator Working
- Centralized Operator Working
- DDI (routing of inbound calls dialed to specific numbers)
- DID (routing of inbound calls dialed to specific lines / channels)

- Extension Class of Service
- Extension Trunk Barring
- Least Cost Routing
- Alternative Routing
- Digit Translation
- Night Service (to specific extension)
- Night Service (to auto attendant)
- Night Service (tonight bell)
- Outgoing CLI Suppression
- Alternative Outgoing CLI
- First Party Release
- Music on Hold
- Free seating
- Divert on Busy (Internal calls only)
- Divert on Busy (External calls only)
- Divert on Busy (All calls)
- Divert on No Reply (Internal calls only)
- Divert on No Reply (External calls only)
- Divert on No Reply (All calls)
- Divert Immediate (Internal calls only)
- Divert Immediate (External calls only)
- Divert Immediate (All calls)
- Divert Over-ride
- Follow Me (Pull Divert)
- Forced disconnect of calls to PSTN after specified time
- Ring Back When Free
- Ring Back When Next Used
- Enquiry Call
- Conference Call
 - Parties per conference with no restrictions regarding internal/external callers.
 - Minimum of 10 concurrent conferences.
- Transfer Call
- Call Park
- Last Number Redial
- Directed Call Pick Up

- Trunk Select
- Missed Call Log

8. OPERATOR CONSOLE

The operator console should be Windows-based attendant client designed for efficient handling high volumes of internal and external calls, and with the following minimum features:

- Search across multiple directories
- Integrated directory based on LDAP or CMG
- Rich Presence info displayed in search results, including:
 - Calendar information
 - UC presence
 - Line state
- Dynamic list of all incoming calls
- Ability to pick call from list of calls in queue
- Status of internal extension displayed before transfer
- Three dial and transfer modes:
 - Preview dialing
 - One-click dialing
 - One-click dialing and transfer
- Park call and Hold call functions
- Dynamic recall for transferred calls
- Configurable Busy Lamp Field
- Presence info displayed in result list and Busy Lamp Field
- Ability to display and change the call forwarding state of a phone

8.1 FEATURES AND FACILITIES

- Multiple Queues (External, Internal, Recall, Emergency etc)
- Prioritization of emergency calls.
- Queue Threshold Alarms
- Queue Indicators with Queue Length
- Selective Answering
- Call Transfer (Unsupervised)
- Call Transfer (Supervised)
- Call Return on No Answer
- Call Split
- Call Hold

- Call Park on Phantom extensions
- Intrusion
- Serial Calls
- Divert Override
- Call Information Display (Calling Party)
- Call Information Display (Called Party)
- Display of Extension Status
- Display of Extension Divert Status
- Dial by Name from Directory
- Directory Search by Name
- Directory Search by Department
- Directory Search by Keyword
- Directory Search by Multiple Field (Operator selectable at time of search)
- Directory Search – Best Match
- Call Return on No Answer to the switchboard that originally handled the call

9. SYSTEM MANAGEMENT

The system management application shall support a management interface that is capable of being accessed via the LAN.

- The management interface shall allow the user database to be managed.
- The management interface shall be browser based to obviate the need for local software implementations.
- The management interface shall be capable of supporting concurrent access from multiple users.
- The management interface shall be protected by a user name and password arrangement.
- The management interface shall be capable of supporting a range of access profiles to meet the differing needs of customers, first line support, second line support etc.

10. IP PHONE SETS

The Bidder shall provide the following type of phones:

10.1 TYPE 1: HIGH-RANGE IP PHONE (DIRECTORS LEVEL)

The High-Level IP Telephone Sets for Director should offer the following minimum features (*i.e. bidder can offer better features*):

- Large 7-inch touchscreen color display: 800x480 pixel LCD and Up to 24 lines with two dedicated line keys with LED
- 48 programmable soft keys that can be customized over four pages
- Dual gigabit ethernet ports
- 30 context-sensitive system soft keys that can be customized over six pages
- Embedded Bluetooth 4.0
- Powered USB port

10.2 TYPE 2: HIGH-RANGE IP PHONE (MANAGERS LEVEL)

The High-Level IP Telephone Sets for managers should offer the following minimum features (*i.e. bidder can offer better features*):

- Dimensions 134 x 53 x 26 mm
- Weight: 135g (battery and clip included)
- 176x220 pixel LCD color screen with white backlighting
- 3 programmable soft keys
- 9 programmable hot keys
- Push button alarm
- Up to 1000 entries with company phone book
- Up to 250 entries in local phone book
- 14 ring signals, flashing LED and vibrator
- Supports Wi-Fi 802.11 a/b/g/n standards
- Hearing Aid Compatible (HAC)

10.3 TYPE 3: MID-RANGE IP PHONE (ADMIN & SECRETARY LEVEL) WITH EXPANSION BUTTON MODULE

The Mid-range IP Telephone Sets should offer the following minimum features (*i.e. bidder can offer better features*):

- Dimensions 134 x 53 x 26 mm
- Support for up to 24 lines when connected to an expansion module
- 3.5" QVGA 320x240 pixel color backlit display
- HD wideband audio
- Six programmable soft keys and four programmable context sensitive system keys
- Native DHSG/EHS headset support
- Support for detachable keyboard and up to three expansion modules
- XML capabilities
- PoE Class 2

The Expansion module should offer the following minimum features:

- 4.3" 480x272 pixel color backlit LCD display
- 84 programmable softkeys with LEDs (3 pages of 28 keys each)
- Programmable softkeys support advanced features such as Shared Call Appearance (SCA), Busy Lamp Field (BLF), and Speed Dial
- Up to 3 expansion modules

10.4 TYPE 4: CONFERENCE IP PHONE (CONFERENCE ROOMS, AND SIMILAR AREAS)

The Conference IP Phone should offer the following minimum features (*i.e. bidder can offer better features*):

- Dimensions (L x W x H): 18.1in x 10.6in x 5.5in (46cm x 27cm X 14cm)
- 7" 800x400 Color Touch Display
- 96 programmable keys
- 6 context-sensitive soft keys
- PoE power (802.3af)
- Bluetooth 4.1 enabled

- MobileLink enabled
- 8 beam forming microphone with 360° pickups
- Hi-Q Audio Technology
- 2 USB ports
- 360° microphone pickups

11. CALL MANAGEMENT SOLUTION

The solution should offer an innovative user interface with a widget driven dashboard delivering enhanced analytics, navigation, and user experience. The solution will deliver granular visibility on performance and infrastructure. Solution should support minimum 1500 ports and can be expandable to 5000.

Key features include:

- Performance Reporting
- Infrastructure Reporting
- Analysis & Reporting
- Distributed Architecture
- Hunt group/Ring group Reporting
- Exchange format for all industrial standard Telephony Systems
- Supports multisite solution, multiple carrier and multiple telephone formats
- Web based interface
- Web access for all users to classify business & personal calls

12. SYSTEMS CAPACITY

The Bidder should ensure that the telephony system should cover the following minimum capacity:

- Redundant System
- 3 E1 ISDN Lines (90 Channels)
- 36 Analog Trunks
- 75 SIP Trunks
- 290 IP User Licenses
- 720 Analog Extensions
- 1 Operator Console (Windows-based)

13. TRAINING

The Bidder shall be responsible for providing local training for PAHW four personals to enable them to perform system administration and daily operations.

14. IP PHONE OPERATION

Bidder shall be responsible for installing, operating, and training PAHW personal on the new IP Phone sets during the local support period.

15. WARRANTY & LOCAL SUPPORT

Beyond implementation, bidder should cover the following:

- Warranty of 33 months for the system inclusive of hardware spares, phones spares, and software upgrades to the latest releases.
- The new Telephony System should be covered with 33 months local support (24/7) for software & hardware.
- The new Telephony System should be inclusive of three (3) years software assurance (Vender Back-to-back) support.
- Bidder must provide Online Support Portal to Create Tickets.
- Any proposed device (PBX or telephone) in the bid should have at least 5 years of future support from the manufacture. A proof should be provided.

16. BILL OF QUANTITY

No.	Description	Qty
1	Telephony Redundant System with the following minimum Capacity: <ul style="list-style-type: none">- 3 E1 ISDN Lines (90 Channels)- 60 Analog Trunks- 160 SIP Trunks (using High Availability SBC)- 290 IP User Licenses- 720 Analog Extensions	1
2	Type 1: High-range IP Phone (Directors Level)	15
3	Type 2: High-range IP Phone (Managers Level)	35
4	Type 3: Mid-Range IP Phone with Expansion Button Module	215
5	Type 4: Conference IP Phone	25
6	Call Accounting Solution including hardware & software	1
7	Local Support and Warranty for 3 years (Hardware & Phones)	1
8	Software assurance for 3 years	1
9	Training for PAHW 4 Personals	1