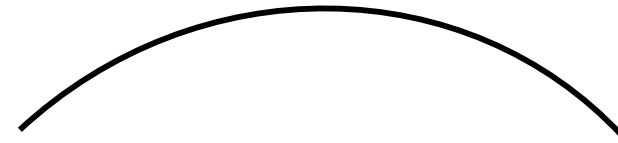


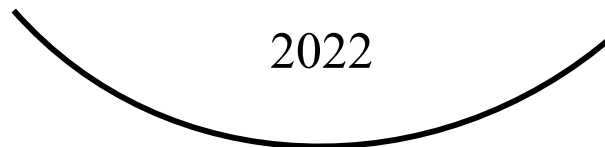
دولة الكويت  
المؤسسة العامة للرعاية السكنية



## Request for Proposal (RFP)

كراسة المواصفات الفنية الخاصة بمناقصة  
صيانة أجهزة غرفة الخادم الرئيسي التابعة لمركز نظم المعلومات

بالمؤسسة العامة للرعاية السكنية



2022



## **Table of Content**

1. Introduction
2. Scope of the Work
  - 2.1. Hardware Maintenance
  - 2.2. UPS Support and Maintenance
  - 2.3. Antivirus Software System
  - 2.4. Resident DBA
3. Shifting and Equipment Movement
4. Appendix (1):
  - 4.1. Main Site Servers Hardware System.
  - 4.2. Main Site Storage/SAN Sub Systems.
  - 4.3. DR Site Server & Storage items.
  - 4.4. Main Site Backup to Disk / Tape library.
  - 4.5. Main site Network Hardware Devices.
  - 4.6. UPS (Uninterruptable Power Supply).
  - 4.7. Antivirus Software System.
  - 4.8. Servers Hardware Items Under Oracle Premier Support for Systems.
  - 4.9. Main & DR Site Storage under Oracle Premier Support for Systems

# 1 Introduction

Public Authority for Housing Welfare is a Government Organization serving the needs of the Kuwaiti Citizens in the areas of Housing and Welfare. The Head Office is located in South Surra.

Public Authority for Housing Welfare known as PAHW, presents this Request for Proposal (RFP) to the qualified bidders specialized in Hardware Maintenance Services for the existing PAHW whole systems environment. The bidder will conduct the Business of the current systems. Bidders are required to comply with all requirements and conditions.

The Public Authority for Housing Welfare (Here after Referenced as PAHW) is interested in Maintain & Keep Their hardware equipment's, communication equipment's, networking equipment's and basic software necessary running in a good condition as follow:

1. Whole Main Site Servers Hardware Systems existing and future plan infrastructure.
2. Main Site Storage/SAN sub systems existing and plan infrastructure.
3. DR Site Server & Storage items.
4. Main site Network Hardware Devices existing and future plan infrastructure.
5. UPS (Uninterruptable Power Supply) existing and future plan infrastructure.
6. Antivirus Software System (license's, installation, configuration and maintenances).
7. Staff and Resident Engineer.

This Request for Proposal (RFP) invites fixed price bids from selected potential counterparties for Service Level Agreement with PAHW for IT Services explained in the following Sections.

## 2 Scope of Work

### 2.1 Hardware Maintenance:

PAHW requires all System Hardware in full operational condition and Services running in optimum state. The Bidder is responsible to keep all equipment in good condition with regard to its function so that problem free service is provided.

- The list of Hardware which includes Servers, Storages and related component, and Services running on these Servers and Storage System are listed in APPENDIX 1. The Bidder must maintain the services mentioned and provide any additional services that will be needed to keep the operation of systems optimally.
- All critical spares are to be provided and stored on site. Bidders **must provide list of spare parts provided on site.**
- All spare parts must be brand new, no used parts or recycled will be accepted at all.
- Bidder Technical support had to be available 24 x 7, and 2 hours' maximum Response time against any call or issue.
- Bidder must be able to provide immediate Expert Telephonic Support Services and Consultation.
- Bidder must propose a Preventive Maintenance plan, which must be operate on regular basis & it's a must be executed coordinating with PAHW IT personnel and details to be provided.
- Bidder must respond to any emergency calls by PAHW, off working hours or whenever needed and decided by PAHW.
- Reports must be produced on System Operation and health status on regular basis and Addressed to PAHW IT Operations head.
- The Bidder must maintain, register, and archive the incident log, and must produce reports whenever required by PAHW.

- On-site expert Technical consultation should be provided and Technical briefing to be conducted whenever the need arises.
- Tuning and optimizing for best performance are to be carried out by Bidder consultant and engineers, which will be discussed and approved by PAHW IT personnel.
- System health checks and patches analysis to be done on regular basis are the responsibility of the Bidder & these Patch updates, Firmware updates, and OS updates had to be done with coordination, and after authorization of PAHW IT Personnel.
- Bidder must supply complete support plan for all hardware and software listed in APPENDIX 1.
- Bidder must operate the support call management and problem escalation procedure.
- Bidder must be capable to provide complete system replacement, if spares are not available or not able to fix within the agreed repair time.
- Escalation path - provide details on Escalation method in the event that the issue could not be resolved. Penalty has to be applied for any type of issues that cannot be resolved within the agreed time limits.
- For scheduled Preventive Maintenance (PM) which shall be based upon the specific needs of the individual pieces of “Equipment” as determined by the manufacture. PM shall include periodical inspection of” Equipment” to potential problems. PM shall also include any necessary diagnostics, adjustment and replacement of unserviceable parts as required.
- In addition to the preventive maintenance, the bidder will provide on call Remedial Maintenance (RM). This entails providing the necessary repairs of H/W malfunction to keep the “Equipment” in excellent operational condition.
- The bidder will provide the (RM) service as follows:
  - Max. Phone Response Time : 30 min

- Max. On-Site Response Time : 2 hours
  - Max. Fix Time : 4 hours.
  - Time of reference is the call for service time.
- Service calls will be reported to the bidder through its specified contact phone number, which will be provided in writing within the contract.
  - The bidder agrees to replace defective parts at no extra cost. Replaced parts shall become the property of the bidder. The bidder also agrees to provide PAHW with any required hardware upgrade at extra cost.
  - The bidder agrees to maintain adequate levels of hardware stocks at its stores covering the wide spectrum of hardware installed at PAHW's sites. Such as disk drives, tape drives, memory, network cables, power cords, fans, power supply, etc....
  - The bidder shall execute the Engineering Change Order (ECO) as provided by the vendor (Manufacture) at mutual agreement with the customer at bidder's prevailing prices.
  - Backup of the data as per the backup policy defined by PAHW.
  - Archival of the Backup as per the PAHW backup and archival policy.
  - The bidder shall provide equipment Relocation Services upon 14 days advanced notice.
  - PAHW under this contract will be entitled for Vendor (Manufacture/Mother Company) health check for all the equipment. Health Check report from the Vendor.

**(Local Partner implementation for such service is not acceptable)** it has to be given to PAHW on quarterly bases during the contract period.

Service Hours provided under the terms of this contract shall be performed as 24 hrs x 7 days, 2 hrs First Level Support 4 hrs Call to Fix.

- Excluded Services

- ✓ Repair of failure resulted from accident, neglect, misuse or abuse of “Equipment”.
- ✓ Repair of failure resulted from services carried out by non-authorized bidder’s representatives.

## **2.2 UPS Support and Maintenance**

The maintenance for the uninterrupted currents should cover the following:

- Preventive maintenance which consists of a monthly visit to check the functionality of UPS units and the status of the batteries as follows:
  - o The Bidder should perform complete metering check which consists of taking readings of Input and Output Voltage and Frequencies, Input and Output Currents, loads and UPS temperature and do any necessary for an optimum UPS operation.
- Battery load test every three months in order to verify proper battery operation. Checking whether it provides or does not provide the proper backup time when there is a power failure and do any necessary corrective action if required. Also suggest recommendation necessary for an optimum battery operation.
- Spare parts are the property of the bidder and should situate on site. The bidder should replace any faulty parts from these spares during the maintenance contract period.
- Batteries will be tested periodically and recommendations for replacing these batteries will be given to PAHW at least three-month notice before they expire.
- If batteries need replacement, the bidder should order the batteries and delivery period take from 2 to 3 months and the cost is included in the contract.
- The bidder should visit the site on monthly basis for normal routine maintenance and every three months a battery load test and should be on call to respond to service calls 24x7.
- The Agent should do the maintenance.

## **2.3 Antivirus Software System**

The bidder must support, renew and update the latest Antivirus SW currently used By PAHW as Follows: (show in in Appendix 1).

- **Kaspersky Open Space Security Enterprise Space Security QTY 1400.**

## **2.4 Resident DBA**

1. Bidder must provide One Resident (Oracle Certified Professional Onsite Database Administrator DBA) with the following minimum requirements:
  - Computer Science Bachelor's degree or related field (approved by ministry of higher education in Kuwait).
  - Must be Oracle Database 10g,11g,12c Administration Certified Master.
  - Must be Oracle Web Logic and Oracle RAC Administration Certified Master.
  - Certified as Oracle Application Server 10g,11g,12c,19c Administration Certified Associate (OCA) with a minimum 2 years' experience.
  - Certified as Oracle Database 10g/11g/12c/19c Administrator Certified Professional (OCP) with a minimum 5 years' experience.
  - Certified as Oracle SQL Certified expert.
  - Experience on Oracle Database and Application within a multi-platform (UNIX, Linux and MS) environment.
  - Preferable to have 2+ experience in upgrading Oracle9i/10g/11g /12c/19c to Oracle Database 20c.
  - Experience including but not limited to Oracle OEM, SQL Plus, and Oracle Linux.
  - Experience Oracle DB troubleshooting Performance issues.
  - Excellent knowledge of data backup, recovery, security and integrity.
  - Experience administering WebLogic, Oracle Workflow, Concurrent Manager, ADOP (Online Patching), Cloning, and DR.
  - Must understand the functional and internal machinations of the Oracle Applications software.
  - Experience and familiarity with IT management products and services



- Domain expertise with IT operations, security or compliance is desirable
- Good Knowledge in OS like Linux, SUN Solaris, HP-UX, IBM(UIX), Windows etc.
- Good Knowledge in sql and PISQL.
- Very good understanding of Oracle core database architecture and concepts.
- Oracle SQLNet configuration and working knowledge.
- Networking knowledge with respect to impacts on sqlnet.
- Experience in major Oracle DB version upgrades.
- Backup/Recovery skills.
- Solid understanding of database migrations across platforms.
- Strong record of accomplishment in writing and installing scripts for database administration tasks, such as backups and capacity monitoring.
- Extensive Oracle product knowledge.
- Extensive experience of RMAN.
- Extensive experience of RAC.
- worked on Cluster and High Availability Systems
- Performing Hot/Cold and logical backups.
- Building servers and databases to global standards.
- Understanding of fault-finding Oracle Client connectivity.
- Understanding of database security.
- Understanding of network, multi-user access and locking issues.
- Understanding of database logging and recovery and how to recover from the various failure scenarios.
- The provided DBA should pass PAHW background test.
- Minimum three CVs. Of the proposed DBAs must be provided to PAHW by the bidder and PAHW will decide on the DBAs suitability to the proposed position. PAHW reserves the right to fulfil the vacancy from the local market and the bidder will be responsible for all the related charges,

if/when, the interviewed professionals do not meet PAHW requirements/expectations.

- If the DBA fails to deliver, he/she should be replaced within two weeks. If the bidder fails to provide the DBA replacement within two weeks, PAHW reserves the right to fulfil the vacancy from the local market and the bidder will be responsible for all the related charges.

**Responsibilities:**

- Responsible for installing, operating, managing and maintaining the SUN Solaris servers that supports the whole businesses.
- Provide technical support across a multi-platform infrastructure (SUN Solaris, Red Hat Linux, and Microsoft Windows).
- Providing day-to-day SUN Solaris support for the production and development systems and activities in a structured manner.
- Providing Oracle Database production support.
- Providing project support.
- Monitoring capacity, integrity and performance of production systems.
- Installing new Oracle database and Oracle Application servers for both the Windows and SUN Solaris environments, understanding the performance and resilience characteristics of the key hardware/software components and ability to follow standard procedures.
- Implementing a suitable backup strategy to support the applications & Databases.
- Carrying out performance and tuning at oracle Database and Oracle Applications server level, demonstrating an understanding of application level issues.
- Maintaining monitoring systems to provide 24x7 cover.
- Modifying and maintaining existing scripts to handle minor changes in infrastructure.

- Reproducing and simplifying problems for resolution by Oracle technical support, also working with Oracle Metalink to develop workarounds for problems.
- Understanding the impacts/implications of undertaking ‘unsafe’ operations, and minimizing their risk.
- Exposure to MSSQL/Sybase.
- Database Tuning.
- Database Diagnostic.
- Database Configuration.
- Responsible for solving thorny performance problems, ensuring backups are taken, recovering and restoring data when problems occur, designing physical databases from logical models, making operational changes to database structures and being able to tackle any issue that arises that is data-related.

**Personal attributes:**

- Effective communicator in Arabic & English (verbal and written)
- Good team working ethic
- Flexibility
- Proactive attitude

### **3 Shifting and Equipment Movement**

The Bidder must include in its proposal a secured and safe movement with zero down time for all the existing equipment in the current PAHW Main room in the head office (if needed). The movement should be done in a way to avoid any damage or system down time.

## 4 Appendix (1)

### 4.1 Main Site Servers Hardware Systems:

No.	Qty.	Manufacturer	Model
1	5	Hewlett-Packard	ProLiant DL380 G5
2	6	Hewlett-Packard	ProLiant DL380 G7
3	2	Hewlett-Packard	ProLiant DL580 G5
4	3	Hewlett-Packard	ProLiant DL580 G9
5	3	Hewlett-Packard	ProLiant ML570 G4
6	2	Hewlett-Packard	ProLiant ML370 G6
7	2	Hewlett-Packard	HP RX 2660
8	1	Hewlett-Packard	HP RX2800 I4 RACK SERVER
9	14	Hewlett-Packard	HP BL460G7
10	2	Hewlett-Packard	HP C7000 Enclosure
11	2	Dell	PowerEdge R740
12	1	Dell	PowerEdge R730

### 4.2 Main Site Storage/SAN sub systems:

No.	Qty.	Manufacturer	Model
1	1	Hewlett-Packard	San Storage HP 6400 with SAN Switch
2	1	IBM	IBM DS3512 iSCSI Storage
3	1	EMC	EMC Storage VNX5300 With SAN Switches
4	2	EMC	EMC Unity 300 Storage

### 4.3 DR Site Server & Storage items:

No.	Qty.	Manufacturer	Model
1	1	HP	HP RX2800 I4 RACK SERVER
2	1	HP	HP DL580 G7 Server
3	1	HP	HP P6350 EVA FC
4	2	HP	HP 8/8 SAN SWITCH

### 4.4 Main Site Backup to Disk / Tape library:

No.	Qty.	Manufacturer	Description
1	1	Hewlett-Packard	HP MSL2024 1 LTO-5 3280 FC Tape Library

### 4.5 Main site Network Hardware Devices:

No.	Qty.	Manufacturer	Model
1	4	Hewlett-Packard	JH394A: HPE FlexFabric 5940 48XGT 60SFP+ Switch

2	2	Hewlett-Packard	Procurve 8212zl (J9091A)
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#### 4.6 UPS (Uninterruptable Power Supply):

No.	Qty.	Description
1	2	Silcon DP320E
2	3	Smart-UPS VT 20 KVA (SL20KH)
3	1	Smart-UPS VT 40 KVA

#### 4.7 Antivirus Software System:

No.	Qty.	Description
1	1400	Kaspersky Open Space Security Enterprise Space Security

#### 4.8 Servers Hardware Items under Oracle Premier Support for Systems:

Item	Part Number	Description	Qty
Production: 2 x SPARC T8-1 servers each with 1 SPARC M8 32-core 5.0 GHz processor, 512GB memory, 2 x 800GB SSD			
1.01	7113718	SPARC T8-1 server: model family	2
1.02	7113714	SPARC T8-1 server: base with 1 SPARC M8 21-Core 5.0 GHz processor (for factory installation)	2
1.03	7114454	One 32 GB DDR4-2400 registered DIMM (for factory installation)	32
1.04	7115078	One 800 GB 2.5-inch SAS SSD with marlin bracket (for factory installation)	4
1.05	SE6Y9MF1Z	Filler panel for disk drives (for factory installation)	12
1.06	7111182	Oracle Quad Port 10GBase-T Adapter (for factory installation)	4
1.07	1109A-Z	Sun Dual 10GbE+ SFP+ PCIe Low Profile Adapter	4
1.08	2129A	Sun 10Gbps Dual Rate SFP+ SR	8
1.09	SR-JUMP-2MC13	Power Cord: Sun Rack 2 jumper, 2 meters, C14RA plug, C13 connector, 13 A (for factory installation)	4
1.1	7114063	Oracle Solaris with fallback-boot image and Oracle VM Server for SPARC preinstall (for factory installation)	2
1.11	7114774	Two memory expansion boards (for factory installation)	2
Test/Dev: SPARC T8-1 servers each with 1 SPARC M8 32-core 5.0 GHz processor, 512GB memory, 2 x 800GB SSD			
1.12	7113718	SPARC T8-1 server: model family	1
1.13	7113714	SPARC T8-1 server: base with 1 SPARC M8 21-Core 5.0 GHz processor (for factory installation)	1
1.14	7114454	One 32 GB DDR4-2400 registered DIMM (for factory	16

		installation)	
1.15	7115078	One 800 GB 2.5-inch SAS SSD with marlin bracket (for factory installation)	2
1.16	SE6Y9MF1Z	Filler panel for disk drives (for factory installation)	6
1.17	7111182	Oracle Quad Port 10GBase-T Adapter (for factory installation)	2
1.18	1109A-Z	Sun Dual 10GbE+ SFP+ PCIe Low Profile Adapter	2
1.19	2129A	Sun 10Gbps Dual Rate SFP+ SR	4
1.2	SR-JUMP-2MC13	Power Cord: Sun Rack 2 jumper, 2 meters, C14RA plug, C13 connector, 13 A (for factory installation)	2
1.21	7114063	Oracle Solaris with fallback-boot image and Oracle VM Server for SPARC preinstall (for factory installation)	1
1.22	7114774	Two memory expansion boards (for factory installation)	1
Management server: SPARC S7-2 server each with 1 SPARC S7 8-core 4.27 GHz processor, 64GB memory, 4 x 1.2 TB HDD			
1.23	7112913	SPARC S7-2 server: model family	1
1.24	7114629	SPARC S7-2 server: base with 1 SPARC S7 8-core 4.27 GHz processor (for factory installation)	1
1.25	7119478	One 16 GB DDR4-2400 single-rank registered DIMM (for factory installation)	4
1.26	7111107	One 1.2 TB 10000 rpm 2.5-inch SAS-3 HDD with marlin bracket (for factory installation)	4
1.27	6331A-N	2.5-inch HDD filler panel (for factory installation)	4
1.28	1109A-Z	Sun Dual 10GbE SFP+ PCIe Low Profile Adapter	1
1.29	SR-JUMP-2MC13	Power Cord: Sun Rack 2 jumper, 2 meters, C14RA plug, C13 connector, 13 A (for factory installation)	2
1.3	7114240	Oracle Solaris with fallback-boot image and Oracle VM Server for SPARC preinstall (for factory installation)	1
1.31	7102748	PCIe filler panel (for factory installation)	2
1.32	7113249	Oracle Storage 12 GB SAS PCIe HBA, internal (for factory installation)	1
1.33	2129A	Sun 10Gbps Dual Rate SFP+ SR	2
DR: 1 x SPARC T8-1 servers each with 1 SPARC M8 32-core 5.0 GHz processor, 512GB memory, 2 x 800GB SSD			
1.34	7113718	SPARC T8-1 server: model family	1
1.35	7113714	SPARC T8-1 server: base with 1 SPARC M8 21-Core 5.0 GHz processor (for factory installation)	1
1.36	7114454	One 32 GB DDR4-2400 registered DIMM (for factory installation)	16
1.37	7115078	One 800 GB 2.5-inch SAS SSD with marlin bracket (for	2

		factory installation)	
1.38	SE6Y9MF1Z	Filler panel for disk drives (for factory installation)	6
1.39	7111182	Oracle Quad Port 10GBase-T Adapter (for factory installation)	2
1.4	1109A-Z	Sun Dual 10GbE+ SFP+ PCIe Low Profile Adapter	2
1.41	2129A	Sun 10Gbps Dual Rate SFP+ SR	4
1.42	SR-JUMP-2MC13	Power Cord: Sun Rack 2 jumper, 2 meters, C14RA plug, C13 connector, 13 A (for factory installation)	2
1.43	7114063	Oracle Solaris with fallback-boot image and Oracle VM Server for SPARC preinstall (for factory installation)	1
1.44	7114774	Two memory expansion boards (for factory installation)	1
Management server: SPARC S7-2 server each with 1 SPARC S7 8-core 4.27 GHz processor, 64GB memory, 4 x 1.2 TB HDD			
1.45	7112913	SPARC S7-2 server: model family	1
1.46	7114629	SPARC S7-2 server: base with 1 SPARC S7 8-core 4.27 GHz processor (for factory installation)	1
1.47	7119478	One 16 GB DDR4-2400 single-rank registered DIMM (for factory installation)	4
1.48	7111107	One 1.2 TB 10000 rpm 2.5-inch SAS-3 HDD with marlin bracket (for factory installation)	4
1.49	6331A-N	2.5-inch HDD filler panel (for factory installation)	4
1.5	1109A-Z	Sun Dual 10GbE SFP+ PCIe Low Profile Adapter	1
1.51	SR-JUMP-2MC13	Power Cord: Sun Rack 2 jumper, 2 meters, C14RA plug, C13 connector, 13 A (for factory installation)	2
1.52	7114240	Oracle Solaris with fallback-boot image and Oracle VM Server for SPARC preinstall (for factory installation)	1
1.53	7102748	PCIe filler panel (for factory installation)	2
1.54	7113249	Oracle Storage 12 GB SAS PCIe HBA, internal (for factory installation)	1
1.55	2129A	Sun 10Gbps Dual Rate SFP+ SR	2

#### 4.9 Main & DR Site Storage under Oracle Premier Support for Systems:

Item	Part Number	Description	Qty
Prod Storage: Oracle ZFS Storage ZS7-2 with Dual Controller (3) TB RAM per system (1) Drive Enclosure with (20) 7.6 TB SSD			
1	7119897	Oracle ZFS Storage Appliance Racked System ZS7-2: ATO model family	1
2	7119913	Oracle ZFS Storage Appliance Racked System ZS7-2: base system, mid-range	1

3	6443A	Two 1-phase high voltage 22kVA PDUs with 2P3W-IP44 plugs for EMEA and APAC, except Japan and Taiwan	1
4	7119919	Cable: 3 meters, mini-SAS HD to mini-SAS HF, active optical (for factory installation)	4
5	7600230	Oracle ZFS Storage Appliance Racked System: HP drive enclosure DE3 with twenty 7.68 TB SSDs (for factory installation)	1
6	7111182	Oracle Quad Port 10GBase-T Adapter (for factory installation)	4
7	7115460	Oracle Storage Dual Port 16 Gb or 32 Gb Fibre Channel PCIe HBA with 2 transceivers, Qlogic (for factory installation)	4
8	7110966	Engineered Systems 1 RU filler panel	36
9	7115349	One 64 GB DDR4-2666 registered LRDIMM	16
DR Storage: Oracle ZFS Storage ZS7-2 with Dual Controller (3) TB RAM per system (1) Drive Enclosure with (20) 7.6 TB SSD			
1	7119897	Oracle ZFS Storage Appliance Racked System ZS7-2: ATO model family	1
2	7119913	Oracle ZFS Storage Appliance Racked System ZS7-2: base system, mid-range	1
3	6443A	Two 1-phase high voltage 22kVA PDUs with 2P3W-IP44 plugs for EMEA and APAC, except Japan and Taiwan	1
4	7119919	Cable: 3 meters, mini-SAS HD to mini-SAS HF, active optical (for factory installation)	4
5	7600230	Oracle ZFS Storage Appliance Racked System: HP drive enclosure DE3 with twenty 7.68 TB SSDs (for factory installation)	1
6	7111182	Oracle Quad Port 10GBase-T Adapter (for factory installation)	4
7	7115460	Oracle Storage Dual Port 16 Gb or 32 Gb Fibre Channel PCIe HBA with 2 transceivers, Qlogic (for factory installation)	4
8	7110966	Engineered Systems 1 RU filler panel	36
9	7115349	One 64 GB DDR4-2666 registered LRDIMM	16