



**PROJECT IMPLEMENTATION UNIT (PIU)
PUNJAB URBAN LAND SYSTEM
ENHANCEMENT (PULSE)
Punjab Land Records Authority (PLRA)
Government of the Punjab



TERMS OF REFERENCE

PUNJAB URBAN LAND SYSTEM ENHANCEMENT (PULSE)

**ISLAMIC REPUBLIC OF PAKISTAN
PUNJAB PROVINCE**

**HIRING OF IT SYSTEM MANAGEMENT EXPERT
FOR PROFESSIONAL SUPPORT**

November 2024

Terms for Reference for IT System Management Expert for Professional Support

1. BACKGROUD INFORMATION

Board of Revenue, Punjab with the technical & financial support of World Bank is implementing the Punjab Urban Land System Enhancement (PULSE) project for the establishment of a unified central database of all types of urban properties (societies / authorities / development agencies), rights and charges. The proposed system will not merely a GIS & Parcel based one but has all possible functionalities to serve as a robust platform for creation of ‘Spatial Data Infrastructure’ (SDI), an inevitable need of the future. The project will provide a complete and transparent record of title in land and immovable property. Digitization of remaining parts of rural land, digitization of katchi abadi record, automation of sub-registrar record rooms is also part of the project.

1.1. Beneficiary Country and Province:

Islamic Republic of Pakistan and Punjab Province.

1.2. Contracting Authority:

Under the PULSE Project and in agreement with the World Bank, the Project Implementation Unit (PIU), Punjab Land Records Authority (PLRA), Government of Punjab is the contracting authority.

2. OBEJECTIVE

One of the core objectives of the PIU is to provide analytical services and value-added information and solutions to PLRA and other users such as project beneficiaries, project stakeholders, and donor organizations in a manner that broadens and strengthens the digitization of land records in Punjab and maximizes the effectiveness of the PULSE.

The IT System Management Expert for professional support will provide professional support to the PULSE and wider PIU team that is part of achieving the project development objective of PULSE, aligning with the vision of PLRA to integrate and automate land records management.

3. SCOPE OF WORK

The key responsibilities & duties to be accomplished by the IT System Management Expert are as follows:

- i. Hands-on application integration, architecture, engineering, and support of the in house servers and storage systems of Data Center.
- ii. Design, implement, and support the computing systems, including both physical and virtual systems (MS & Linux), and perform configuration, maintenance, support, and engineering tasks.
- iii. Investigate and diagnose complex technical problems; this involves analyzing system logs, performing advanced tests, and utilizing specialized diagnostic tools to identify the root cause of the issue. System and software analysis, troubleshooting, and documentation.
- iv. Use, knowledge, and support of the following technologies: VMware /Hyper-V Virtualization, Windows file and Print Sharing including mapped drives, Windows Active Directory and Group Policy, various Web Server technologies such as Apache Nginx, MySQL and PHP and Apache/Nginx HTTP Server.
- v. Collaborate cross-functionally with software engineers and DevOps Engineers.
- vi. Experience connecting Windows server and Linux systems to enterprise storage, and understanding of appropriate use cases for SAN and NAS.
- vii. Experience hands on GP,DC,ADC,DNS,AD,IIS,WSUS,DFS,FTP,NLB,LAMP,LEMP.
- viii. Experience connecting Linux & Microsoft windows and Servers to TCP/IP networks, configuring, troubleshooting, tuning, etc.
- ix. Excellent Expertise mandatory with server virtualization technologies Hyper-V, V center, VMware ESXI etc.
- x. Maintain the patch levels of all OS and application patches on all systems using automated systems Profile server resource usage, optimize and tweak as necessary.
- xi. Experience on Blade Servers and HCI technology in Data Center.
- xii. Deploy new infrastructure and changes with minimum disruption for the end users.
- xiii. Write and maintain technical implementation documentation on services and infrastructure.

- xiv. Provide escalation support for deployed infrastructure as needed (Generally only required in working hours, but in exceptional circumstances support may be required out of hours).
- xv. Contribute to the development of new platforms, products and infrastructure in conjunction with the design teams.
- xvi. Design, configure and tune highly-available MS servers & Linux systems.
- xvii. Perform Project Management roles for internal technical projects as needed, ensuring work is delivered on-time and to a high quality.
- xviii. Assist in implementing, executing, maintaining, and documenting proper DR and BC as well as high availability procedure.
- xix. 24x7 support of Production appliances and related /associated supporting systems.
- xx. The IT System Management Expert will be responsible to perform any other tasks assigned and instructed by Head of IT.

4. QUALIFICATION AND EXPERIENCE

Applicants shall have the following qualifications and experience:

- i. Minimum 16 years of education in Computer Science / Information Systems / Information Technology/Computer Engineering from HEC recognized University / Institute.
- ii. At least 3 years of relevant experience in handling large system infrastructure.
- iii. Certifications: MCSA/MCSE or Equivalent Trainings.

5. TYPE OF CONTRACT

Time-Based Contract.

6. ESTIMATED DURATION OF CONTRACT

The duration of the contract is for a period of two (02) years, extendable subject to satisfactory performance evaluation of the Consultant.

7. SELECTION METHOD

The selection will be made in accordance with the Open Competitive Selection of Individual Consultants of World Bank Procurement Regulations for IPF Borrowers”, dated November 2020. The attention of interested Consultants is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank’s “Procurement Regulations for IPF Borrowers” dated July 2016 revised November 2017 and August 2018 (“Procurement Regulations”), setting forth the World Bank’s policy on conflict of interest.
