

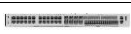
Technical Specifications and Cost Estimation

Project Name :Support to Public Financial Management and Financial Market - FFM II
Project P.N :G-018140-001
Tender Name :Disaster Recovery datacenter

A.Introduction

The Iraq General Commission of Customs (IGCC) seeks to establish a fully operational Disaster Recovery (DR) Centre to ensure the continuity, resilience, and security of its critical customs systems, particularly the ASYCUDA platform. The proposed solution should provide a dedicated backup environment capable of maintaining customs operations and safeguarding critical data in the event of infrastructure failures, cyber incidents, or other disruptions affecting the primary hosting environment. The assignment shall be implemented on a turnkey basis and include the design, supply, installation, integration, testing, commissioning, and handover of a Smart Modular Data Centre solution. The facility shall comprise all required components, including modular data centre infrastructure, UPS and power distribution systems, precision cooling, fire suppression systems, physical security and surveillance systems, structured cabling, network infrastructure, monitoring and management platforms, and backup power capabilities. The solution shall comply with internationally recognized standards and best practices for disaster recovery, business continuity, and data centre operations, ensuring high availability, operational reliability, and future scalability. The proposed Disaster Recovery Centre will be installed within a dedicated facility with approximate dimensions of 5 metres x 11 metres, designed to accommodate a dual-row modular data centre layout consisting of six IT racks, supporting infrastructure, containment systems, power and cooling equipment, and associated operational space. The solution design shall optimize the available footprint while ensuring efficient airflow management, equipment accessibility, and future expansion capability

B. TECHNICAL SPECIFICATIONS

No.	LOTs	Item	Specifications	Use	Quantity	
					amount	unit
1	1	IT Server Rack (Cabinet)	Standard IT rack complying with IEC 60297-1, dimensions 600 x 1200 x 2000 mm (W x D x H). Perforated front door with mechanical lock. Maximum power density of 6 kW per rack.		6	rack
2	1	Rack Power Distribution Unit (PDU)	Basic type rack PDU — full height vertical mount, no industrial connector, with free mounting plate. One unit per IT rack.		6	unit
3	1	Integrated UPS Cabinet	Double-conversion online UPS, three-phase input/output, Tier-3 design based on 2N architecture. Integrates UPS input/output, maintenance bypass, IT power distribution, A/C and lighting power supply. Capacity ≥60 kVA per cabinet (30 kVA hot-swappable power modules). System efficiency ≥96%. 7-inch LCD+LED display. Rated input 380V AC 3P+N+PE.		2	2 cabinets (one per row)
4	1	Battery Cabinet (Lead-Acid)	Maintenance-free lead-acid battery cabinet supporting the UPS subsystem. Each string contains 17 pcs of 12V/80AH batteries. Rated voltage ±180V~±240V. Equalized charge 2.35V/cell, float charge 2.25V/cell.		2	"2 strings per side.
	1	Precision Air Conditioner (In-Row PAC)	In-row precision air conditioner, DC frequency-converting compressor, EC hot-swappable fan, horizontal air supply, wet-film humidifier. Cooling capacity 35 kW per unit. Air volume ≥6000 m³/h. Indoor unit 2000 x 300 x 1200 mm (H x W x D). 7-inch true-color LCD touchscreen controller with front plug-in maintenance. Configuration N+1 (2+1).		4	totally 4 PCS."
	1	Contained Aisle System	Double-row contained cold/hot aisle with front & end double sliding doors, sealing skylights (fire-alarm linked, automatic open via electromagnetic lock), separate power/signal cable troughs expandable cabinet-by-cabinet. Aisle width 1200 mm.		3	3 units
5	1	DCIM Monitoring & Management System software DCIM Monitoring & Management Hardware	Continuous monitoring of power & distribution equipment, UPS, air conditioning, temperature/humidity, and smoke. Includes 1U rack-mount monitoring collector with unified northbound interface, mobile app support, and 3D layout / full power-chain topology visualization. support ARM CPU architecture ,0.128G memory,2*1.92T SATA SSD,RAID,2*4GE,2*3200W PS),Server		1	1 system (1U Server)
					1	
6	1	Access Control System & Tablet	"Access controllers deployed at the contained aisle entrances, integrated with ID card, password and fingerprint authentication.		2	"2 units (per aisle entrance) as access control.
7	1	Video Surveillance (CCTV Camera)	2MP dome cameras installed inside the contained aisle with 90 days of video storage.		1	1 unit Tablet PC."
8	1	Video Surveillance (Storage)	Application and Software, 64CH,Intelligent video storage,up to 64-ch video access, storage and forwarding, 16-ch 1080p decoding. 8TB Enterprise-level HardDisk Unit(3.5")		2	2 cameras
9	1	Switch for Video Surveillance (Storage) and DCIM Monitoring & Management System	"Application and Software, 64CH,Intelligent video storage,up to 64-ch video access, storage and forwarding, 16-ch 1080p decoding		1	1 storage
10	1	Server And Software	Unified management and control of heterogeneous multi-cloud, multi-DC, and multi-vendor networks, E2E deployment of cross-cloud services in minutes, and simulation of multi-cloud configurations, eliminating errors -E2E visualization of five-layer views (network device > server > virtual network > VM > service), -E2E automation of multi-tenant AI services -Supports interconnection with mainstream OpenStack cloud platforms, Kubernetes container orchestration platforms, or third-party apps. The cloud platforms or thirdparty apps invoke standard APIs to provision network services. -Intelligent troubleshooting with automatic remediation delivery support ARM CPU architecture (32 cores @ 2.6GHz each) 4 × 32GB RDIMM (128GB total) 4 × 1920GB SSD RAID Controller with 2GB cache + SuperCap 2 × 4GE ports - 3 × 2 × 25GE (SFP28) - Dual Power: 2 × 900W AC - Rail kit included		1	PCs

11	1	DC Switch	48*25GE SFP28, 8*100GE QSFP28, 2*AC Power Modules, 5*Fans, Port-side Exhaust -memory DRAM: 8 GB -NOR 64 MB -ssd flash 4GB - support RTC -Switching capacity ≥ 8 Tbit/s. - AI/ECN is supported. -NetStream is supported. -Full lifecycle management via iMaster NCE-Fabric -Orchestration, policy-based management, and automation -Integrated with virtualization environments		1	PCs
12	1	Firewall	8*GE COMBO + 4*GE RJ45 + 4*GE SFP + 6*10GE SFP+, 1 AC POWER -Threat prevention throughput (Enterprise Mix):4Gbps -NGFW throughput (HTTP 100 KB):5Gbps -Forwarding delay 9 μs Maximum number of concurrent IPv4 connections:10million Technical Support – 60 months -Must fully integrate with SDN controller -Must support virtualization features and integration with virtualization platforms and nce fabric		1	PCs
13	1	Server & Virtualization Software	1- 6 nodes (servers). 2- Supports atleast 24 cores per CPU. 3- Supports 128 GB RAM. 4- Supports 16 TB HDD storage. 5- Supports 1.92 TB SSD (cache). 6- Supports VM restoration by moving deleted VMs to a recycle bin, allowing recovery. 7- Supports USB 3.0/2.0 passthrough, enabling USB devices on physical servers to be used by VMs. 8-Supports hybrid deployment of x86 and ARM servers with unified management on a single platform. 9- Supports recycle bin functionality to recover VMs in case of accidental deletion. 10- Supports Dynamic Power Management (DPM) to automatically power hosts on/off based on cluster load. 11- Supports NPU virtualization for future AI evolution. 12- Supports independent storage LUNs for each VM. 13- Supports offloading VM snapshot, clone, and replication operations to storage devices. 14- Supports perpetual license authorization to reduce overall TCO. 15- the virtualization software vendor should be the platinum member of the Linux Foundation 16- A bidding brand (non-OEM) is recognized as a Leader in 2025 Gartner® Magic Quadrant™ for Enterprise Storage Platforms		6	PCs
14	1	Production Storage	1- Cache Per Dual Controller Atleast 128GB 2- Raw Capacity 30TB 3- Supports integrated SAN, NAS, and S3 storage. A single controller supports SAN, NAS, and S3 protocols without needing any gateway device. 4-Supports controllers that use multi-core processors, and the total number of controller processor cores is greater than or equal to 64. 5-Supports symmetric active-active architecture. LUNs/File systems do not belong to any controller. 6-Supports end-to-end NVMe architecture. The front end supports the NVMe-oF protocol, and the back end connects to NVMe SSD enclosures via the NVMe-oF protocol. The storage system tolerates simultaneous failures of three disks in a RAID group (excluding RAID 1 and RAID 10). If any three member disks (non-hot spare disks) are faulty, the continuity and data consistency of SAN, NAS, and object services are not affected. 8-Supports synchronous replication between file systems and manual primary/secondary switchover. Replication links support RoCE networking. File systems with synchronous replication enabled support online capacity expansion and snapshot synchronization to the secondary end.		1	PCs
15	1	Leaf Switches	switch (48*10GE SFP+, 8*100GE QSFP28, 2*AC Power Modules, 3*Fans, Port-side Intake)		2	PCs

C. Delivery

The Contractor shall complete the supply, installation, integration, testing, commissioning, and handover of the Disaster Recovery Centre at the Iraqi General Commission of Customs (IGCC), Baghdad, Iraq – Nidhal Street, within ninety (90) calendar days from the date of contract signature. The Disaster Recovery Centre shall be delivered in a fully operational condition and accepted by IGCC following successful completion of all testing and commissioning activities.

D. Warranty

The Contractor shall provide a comprehensive warranty covering all equipment, software, materials, and services supplied under this procurement for a period of twelve (12) months from the date of final acceptance and commissioning. During the warranty period, the Contractor shall repair or replace any defective components at no additional cost to the Contracting Authority and shall provide the necessary technical support to ensure continuous operation of the installed solution.

E. General Remarks and Conditions

- The Contractor shall maintain a qualified local presence in Iraq with sufficient technical personnel to provide installation, maintenance, warranty support, and upgrade services throughout the contract period.
- The Contractor shall provide a Manufacturer's Authorization Letter (MAL/MAF) confirming its authorization to supply, install, and support the proposed solution. The authorization shall clearly identify the Iraqi General Commission of Customs (IGCC) as the end user.
- All equipment supplied under this procurement shall be new, unused, genuine, and obtained directly through authorized distribution channels.
- The Contractor shall submit detailed technical datasheets, specifications, and supporting documentation for all proposed equipment and components.
- The proposed solution shall include all equipment, software, licenses, accessories, cabling, and ancillary items necessary for the complete and successful implementation of the Disaster Recovery Centre, whether or not explicitly listed in this document.
- Partial bids shall not be accepted. The Contractor shall supply and deliver all items and services specified in this Request for Proposal.

