



**INVITATION TO BID  
ESTABLISHING DATA CENTER FACILITY ON  
TURNKEY BASIS  
AT  
THE BANK OF KHYBER  
7<sup>TH</sup> FLOOR BRR TOWER KHI**

**Single stage two envelopes**

**Last Date for Submission: 02<sup>nd</sup> September, 2019 at 10:30 A.M.  
Tender Opening Date: 02<sup>nd</sup> September, 2019 at 11:00 A.M.**

## INTRODUCTION

The Bank of Khyber was established in 1991 through an Act passed by the Provincial Legislative Assembly. It was awarded status of a scheduled bank in September 1994. The Bank enjoys a unique position and stands out amidst other banks operating within Pakistan and has the privilege of being bracketed amongst the only four government banks in the country.

The bank has long been associated with business and commercial circles and has been actively engaged in catering to the financial needs of all sectors. It has successfully been involved in extending funded and non-funded facilities to its customers for various business needs.

Today, BOK is an “A-1” rated commercial bank, operating across the country with a network of 169 branches and still expanding. The provincial government is the major stakeholder and during our 25 years’ history, the Bank has always played a vital role in the development of Khyber Pakhtunkhwa in particular and participated in the economic development of Pakistan in general.

The Bank of Khyber has its Head Office located in Peshawar, with its operation spread all over Pakistan through the presence of nationwide branches.

## SCOPE OF WORK

Sealed Tenders are invited from reputed and well-established firms/companies registered with Sales Tax and Income Tax Departments for the establishment of Data Center as per details specification and conditions mentioned in “**Annexure - A**” of the document.

Following summarize requirements define the scope of work for this Tender:

1. It is a turnkey project and it is required that the bidder should survey the site before submission of the bid. The submitted bid will cover all services, devices or items, mentioned or unmentioned that are required for completion of this project as per specification and accepted standard / best practices required for such projects.
2. Provisioning and preparation of Data center room as per EIA/TIA 942 A/B standards, Power Room, Electrical wiring, Air-conditioning etc. by the bidder. The selected bidder will be responsible for the supply, installation, Integration, testing and commissioning of all equipment and services, provided against this Tender.
3. Selected bidder must ensure that the supplied equipment is fully operational, internationally renowned brand, new and performs properly and meet Tender Technical Specification.
4. At the time of installation and commissioning, selected bidder must provide comprehensive documentation of system/equipment deployed including system manuals, SLD & HLD, labeling, training and training manuals, etc.
1. The Bidder will provide one 1-year comprehensive warranty of completed facility after commissioning / sign off inclusive 1-year comprehensive data center SLA / warranty renewal with parts after warranty expiration of all installed equipment's.

## KEY EVENTS OF TENDER

KEY EVENTS	DATE	VENUE	REMARKS
Open Tender Notice	02-09-2019 at 11:00AM	Tender is being placed online at BOK website <a href="http://www.bok.com.pk">www.bok.com.pk</a> as well as being advertised in Print Media	None
Deadline for Proposal Submission	02-09- 2019 at 10:30AM	BOK Procurement Division, SLIC Building Mall Road, Peshawar	Late submission will not be entertained

The bidder shall submit bids which comply with the bidding document.

It will be the responsibility of the Bidder that all factors have been investigated and considered while submitting the Bid and no claim whatsoever including those of financial adjustments to the contract awarded under this Bid Process will be entertained by the Purchaser. Neither any time schedule, nor financial adjustments arising thereof shall be permitted on account of failure by the Bidder.

It must be clearly understood that the Terms and Conditions and Specifications are intended to be strictly enforced. No escalation of cost except arising from increase in quantity by the Bidder on the demand and approval of the Purchaser will be permitted throughout the period of completion of the contract.

The Bidder should be fully and completely responsible for all the deliveries and deliverables to the Purchaser.

## TYPE OF OPEN COMPETITIVE BIDDING

Single Stage - Two Envelope Bidding Procedure shall be followed. The said procedure is reproduced as follows:

- i. the bid shall be a single package consisting of two separate envelopes, containing separately the financial and the technical proposals;
- ii. the envelopes shall be marked as "**Financial Proposal**" and "**Technical Proposal**";
- iii. in the first instance, the "Technical Proposal" shall be opened and the envelope marked as "Financial Proposal" shall be retained unopened in the custody of the procuring agency;
- iv. the procuring agency shall evaluate the technical proposal in the manner prescribed in advance, without reference to the price and shall reject any proposal which does not conform to the specified requirements;
- v. during the technical evaluation no amendments in the technical proposal shall be permitted;
- vi. after the evaluation and approval of the technical proposals, the procuring agency shall open the financial proposals of the technically accepted bids, publicly at a time, date and venue announced and communicated to the bidders in advance, within the bid validity period;
- vii. the financial bids found technically non-responsive shall be returned un-opened to the respective bidders; and
- viii. the bidder shall be awarded the contract on the basis of criteria set in this tender.

# TENDER DOCUMENT

## DESIGN AND BUILT OF DATA CENTER FOR THE BANK OF KHYBER ON TURNKEY BASIS

Caution: All bidders are requested to read this document carefully and must fulfill the under mentioned requirements.

1. The Bank of Khyber, (hereinafter referred to as “the Purchaser”) invites / requests Proposals (hereinafter referred to as “the Bidders”) for supply and delivery of required materials for the construction of its new Server Room to be located at its headquarters in Karachi, Pakistan.
2. The description, specification and other technical details of items for which tender has been called for should be as per the description of the item published in Tender Advertisement and mentioned in “Annexure-A” of this tender document.
3. Queries of the bidder for clarification should be submitted (if any) with subjected via email to the Primary Contact & Secondary Contact for all correspondence in relation to this bid is as follows:

### **Primary Contact**

Mr. Asif Iqbal

Head IT Infrastructure

**Email:** [asif.iqbal@bok.com.pk](mailto:asif.iqbal@bok.com.pk)

Mr. Rajab Shaikh

Manager Data Center

**Email:** [rajab.shaikh@bok.com.pk](mailto:rajab.shaikh@bok.com.pk)

Muhammad Anwar Khan

Incharge GAD

[muhammad.anwar5621@bok.com.pk](mailto:muhammad.anwar5621@bok.com.pk)

### **Secondary Contact**

Mr. Umer Asgher

IT Procurement Coordinator

**Email:** [umer.asgher@bok.com.pk](mailto:umer.asgher@bok.com.pk)

4. Bidders should note that during the period from the receipt of the bid and until further notice from the Primary Contact, all queries should be communicated via the Primary Contacts

and in writing (e-mail) only. In the case of an urgent situation where the Primary Contact cannot be contacted, the bidder may alternatively direct their enquiries through the Secondary Contact.

5. Bidders are also required to state, in their proposals, the name, title, contact number (landline, mobile), fax number and e-mail address of the bidder's authorized representative through whom all communications shall be directed until the process has been completed / terminated.
6. The Purchaser will not be responsible for any costs or expenses incurred by bidders in connection with the preparation or delivery of bids.
7. Failure to supply required items/services with the specified time period will invoke penalty as specified in this document.
8. The Purchaser shall evaluate the technical proposal in a manner prescribed in advance, without reference to the price and reject any proposal, which does not conform to the specified requirements.
9. After the evaluation and approval of the technical proposal, technically accepted bidders only will be called for financial bids publicly within the bid validity period. Time, date and venue will be communicated to the technically accepted bidders in advance. The bidders technically not accepted, their financial proposals shall be returned un-opened to the respective bidders.
10. Bidders will be solely responsible to deliver all required items/materials as well as to complete the project within the quoted timeframe from all aspects. Bids for individual items/materials will not be admissible.
11. Bidders are required to submit their sealed package (Technical Proposal & Financial Proposal) in line with Khyber Pakhtunkhwa Procurement Rules 2014 to the office of the Head Procurement Division, The Bank of Khyber on or before Tuesday 11<sup>th</sup> June, 2019 at 15:30 hours. Tender Opening Date is Tuesday 11<sup>th</sup> June, 2019 and Time is 16:00 Hours at The Bank of Khyber, Head Office in the presence of the suppliers or authorized representatives.

## EARNEST MONEY

The Tender should be accompanied a Pay Order / Bank Draft (Valid for 90 days from the date of tender opening) equivalent to 5% of the total bid value in Favor of "The Bank of Khyber" as interest free Earnest Money (Refundable). Earnest Money in any other shape shall not be acceptable.

## ELIGIBILITY AND QUALIFICATION CRITERIA FOR THE TENDER

### LEGAL AND MANDATORY REQUIREMENT

Category	Requirements
<b>Legal (Mandatory)</b>	Provide description of the proposed project team, its members, and organizational structure along with an organizational chart identifying the key people/sub-contractor who will be assigned to deliver the goods or services required by this RFP.
	The bidder must be registered with P E C , Sales Tax, Income Tax departments and FBR. (Must Provide Certificate).
	Valid General Sales Tax Registration (Status = Active with FBR)
	Must be registered with Khyber Pakhtunkhwa Revenue Authority (KPRA) Must provide certificate of active tax payer
	The bidder should be AWSP partner of the principle products with comprehensive hands on experience or trained staff (attach certificate copies)
	Vendor must provide relevant references i.e. completion certificate/Purchase Order of deployment of Data Centers Rating III or equivalent Data Center projects similar or higher in size at least 3 in last 3 years (Reference Letter of Completed Data Center required)
	Vendor must provide relevant references that within the last three (3) years, has provided maintenance and management services contract for at least one large data center designed as a Tier III or equivalent facility which required an uptime of at least 99.9%.
	Must have presence in Karachi
	Submission of undertaking that the firm is not bankrupt, blacklisted by any of Provincial or Federal Government Department, Agency, Organization or autonomous body or Private Sector Organization anywhere in Pakistan or involve any illegal activities as per law of Pakistan.
	In full compliance of the Execution Schedule and Delivery Period mentioned in tender document (Undertaking).
	Complete Annual Financial Accounts Reports Last 3 Years, audited by Chartered Accountant Firm.
	Bank Statements of Accounts of the company/firm for the last three years.
	Compliance to the technical specifications of hardware (all items) to be procured mentioned vide Annex-A of this document and product technical Brochure that should include specific make and model with clarity of offered specifications must be enclosed with the bid <b><i>NOTE: All Equipment Supplied as part of this RFP should not out of sale and warranty support for the next 5 Years</i></b>

	The bidder should be Tier-I, ASDP (Authorized Service Delivery Partner) of principle products (attach certificate copy). Authorization Certificate / Document from the principal / Manufacturer/ Distributor for cooling / Power components / DCIM / Surveillance and Containment System
	Bidder must sign and stamp each paper of this bid document.
	Undertaking on stamp paper dully attested from Notary Public must be attached with Technical Proposal confirmation of 5% Call Deposits of total bid amount attached with Financial Proposal. Amount of total bid shall not be mentioned in Undertaking attached with Technical proposal.
	Undertaking on stamp paper dully attested by notary public, regarding provision of Bank Guarantee (performance) in favour of the Bank of Khyber, 5% of the total bid amount shall be provided by the successful bidder after award of work/contract/purchase order. Bank Guarantee (performance) validity shall be for 1 years. Amount of total bid shall not be mentioned in Undertaking attached with Technical proposal.

## TECHNICAL PROPOSAL EVALUATION

The Technical proposals shall be evaluated by the technical evaluation committee in the light of following evaluation criteria:

Sr. #	Description	Marks of Eligibility	Marks Obtained
1	Vendor must provide relevant references i.e. completion certificate/Purchase Order of deployment of Data Centers Rating III or equivalent Data Center projects similar or higher in size in last 3 years  More than 3 Projects in last 3 Years will get 20 mark. Three Projects in last 3 Years = 10 Less than 3 Projects = 0 (Documentary Proof)	20	
2	Vendor must provide relevant references that within the last three (3) years, has provided maintenance and management services contract for data center designed as a Tier III or Tier IV facility which required an uptime of at least 99.9%.  More than 1 Maintenance Contract in last 3 Years = 10 One Maintenance Contract in last 3 Years = 5 Less than 1 Maintenance Contract in last 3 Years = 0 (Documentary Proof)	10	
3	Number of Years in relevant Business of DC Greater than 10 = 10 Between 6-10 Years = 07 Between 3-5 Years = 05 Less than 3 = 0	10	

4	At least 2 Data Center Certified Specialist - CDCS or equivalent (attach copies) who are working in the same capacity since for the last 2 years (Documentary Proof) Equal or More than 2 CDCS = 5 Less than 2 CDCS = 0	5	
5	Data Center Certified Professional – CDCP or equivalent (attach copies) who are working in the same capacity for the last 2 Years (Documentary Proof) More than 4 CDCP having 2 years relevant experience will get 3 marks. Less than 4 CDCP having 2 years relevant experience will get 2 Marks Less than 2 CDCP having 2 years relevant experience will get 0 Marks	3	
6	At least 2 Certified Engineers in Network Infrastructure Services, CCNA, CCNP, or relevant network brand certification (attach copies). Equal or More than 2 = 2 Less than 2 = 0	2	
7	BE qualified engineers  Equal or More than 4 BE having 2 years relevant experience will get 5 marks. Less than 4 BE having 2 years relevant experience will get 3 Marks Less than 2 BE having 2 years relevant experience will get 0 Marks (Documentary Proof)	5	
8	At least two (2) certified PMP / Prince 2 working in the same capacity with 2 Years of relevant experience will get 3 marks. Equal or More than 2 PMP / Prince 2 certified having 2 years relevant experience will get 5 mark. Less than 2 PMP = 0 (Documentary Proof)	5	
10	<b>Financial Strength:</b> Annual Turn Over in last 3 Years (attach copies) verifiable from financial statement Up to 100 Million = 5 Between 51 to 150 Million = 7 Above 200 Million = 10	10	
11	The bidder should be associated with principle (ASDP, Distributor and Manufacturer). Less than 3 Years = 0 Between 3 and 4 Years = 5 Greater than 5 = 10	10	
12	The bidder should be AWSP partner of the principle products with comprehensive hands on experience or trained staff (attach certificate copies) Less than 3 Years = 0 Between 3 and 4 Years = 5 Greater than 5 = 10	10	
13	Related three Project worth 100 million or higher in last three (3) Years Up to 50 Million in last 3 Years = 5 Between 51 to 75 Million in last 3 Years = 7 Above 100 Million in last 3 Years = 10	10	



	<b>Total Marks of Technical</b>	<b>100</b>	
	<b>Technical Qualification Marks are 70% of the Total</b>		

**Note:** Verifiable documentary proof for all above requirements is a mandatory requirement, noncompliance will lead to disqualification.

Marks will be awarded on the basis of these verifiable proofs. Bidder must include checklist for above requirements in their bid.

Technical Bids receiving a score greater than or equal to 70% marks of technical evaluation will be eligible for consideration of further processing. i.e. Financial Evaluation

## JOINT VENTURE / CONSORTIUM

Joint venture / consortium not admissible.

## FINANCIAL PROPOSAL EVALUATION

The evaluation process is designed to award the contract resulting from this RFP not necessarily to the Vendor offering the lowest cost, but rather to the Vendor deemed by the BOK to be responsive and responsible who offers the best combination of attributes based upon the evaluation criteria. ("Responsive Vendor" is defined as a Vendor that has submitted a response that conforms in all material respects to the RFP. "Responsible Vendor" is defined as a Vendor that has the capacity in all respects to perform fully the contract requirements, and the integrity and reliability which will assure good faith performance.)

1. Technically qualified/successful bidder(s)/Tenderer(s) shall be called for opening of the Financial Proposal(s). The Financial Proposals will be opened in the presence (who wish to attend) of the Bidders at the time and venue indicated by the Purchaser accordingly. The technically Eligible/Successful Bidder(s)/Tenderer(s) or their authorized representatives may be allowed to take part in the Financial Proposal(s) opening.
  - 1.1. In cases of discrepancy between the cost/price quoted in Words and in Figures, the lower of the two will be considered.
  - 1.2. In evaluation of the price of articles/goods which are subject to excise duty, sales tax, income tax or any other tax or duty levied by the Government, the price will be determined and considered inclusive of such duties and taxes.
2. The Purchaser will not be responsible for any erroneous calculation of taxes and all differences arising out as above shall be fully borne by the Successful Bidder.

Rating of tender evaluation will be as follows:

Sr. #	Description	Evaluation Weight-age
1	Technical Evaluation	80%
2	Financial Evaluation	20%

80 % weight-age will be given to technical proposals while 20 % weight-age will be given to financial proposals. The formula for financial scoring is that the lowest bidder gets 20 points and the other bidders score 20 multiplied by the ratio of the lowest bid divided by the quoted price.

## REJECTION / ACCEPTANCE OF THE BID

1. The Purchaser shall have the right, at his exclusive discretion, to increase/decrease the quantity of any or all item(s) without any change in unit prices or other terms and conditions, at the time of order placement. The Purchaser may reject all bids or proposals at any time prior to the acceptance of a bid or proposal by assigning reasons. The Purchaser shall upon request communicate to any bidder, the grounds for its rejection of all bids or proposals.
2. The bid shall be rejected if it is:
  - 2.1. substantially non-responsive in a manner prescribed in this tender document; or
  - 2.2. submitted without annexes, schedules, charts, drawings, documents;
  - 2.3. incomplete, partial, conditional, alternative, late; or
  - 2.4. bid not submitted and relevant bid security is not submitted.
  - 2.5. subjected to interlineations / cuttings / corrections / erasures / overwriting; or
  - 2.6. the Tenderer refuses to accept the corrected Total Tender Price; or
  - 2.7. the Tenderer has conflict of interest with the Purchaser; or
  - 2.8. the Tenderer tries to influence the Tender evaluation / Contract award; or
  - 2.9. the Tenderer engages in corrupt or fraudulent practices in competing for the Contract award;
  - 2.10. the Tenderer fails to meet all the requirements of Tender Eligibility / Qualification Criteria;
  - 2.11. the Tenderer fails to meet the evaluation criteria requirements;
  - 2.12. the tenderer has been blacklisted by any public or private sector organization;
  - 2.13. the tenderer has been served any legal notices or displeasure letters by any public sector organization on serious failures to provide satisfactory services;
  - 2.14. the tenderer has mentioned any financial implication(s) in the financial proposal that is in contradiction to this document and Government rules and regulations.
  - 2.15. there is any discrepancy in bidder's proposal i.e. any non-conformity or inconsistency or informality or irregularity in the submitted bid.
  - 2.16. the Tenderer submits any financial conditions as part of its bid which are not in conformity with tender document.
  - 2.17. Non-submission of verifiable proofs against the mandatory as well as general documentary, qualification and eligibility related requirements.
  - 2.18. If the bidder timeline is not as per the purchaser timeline

## AWARD CRITERIA

Bidder scoring Highest marks in tender evaluation consisting of Technical and financial scores will be recommended for the award of contract/work order.

## COMPELTION PERIOD

The project completion period is sixteen (16) weeks, which can be at most extended for two (02) weeks by the BOK, at its mutual consent, after evaluating the justification of such request.

## PAYMENT

- i. The Contractor shall provide all necessary supporting documents along with invoice.
- ii. The Contractor shall submit an Application for Payment, to the Purchaser. The Application for Payment shall: be accompanied by such invoices, receipts or other documentary evidence as the Purchaser may require; state the amount claimed; and set forth in detail, in the order of the Price Schedule, particulars of the Goods supplied, the Services provided and the Works done, up to the date of the Application for Payment and subsequent to the period covered by the last preceding Payment, if any.
- iii. The Purchaser shall get verified the details of Goods/equipment delivered against the invoice from the concerned Technical Team and Payment shall be made on complete delivery of Goods/equipment after issuance of satisfactory certificate by concerned technical team, as per details given in relevant Letter of Acceptance.
- iv. Payment shall not be made in advance and against partial deliveries. The Purchaser shall make payment for the Goods supplied, the Services provided, and the Works done to the Contractor, in Pak Rupees.
- v. The Contractor shall cause the validity period of the performance security to be extended for such period(s) as the contract performance may be extended. In case the Contractor fails to submit bank guarantee with extended validity period for such period(s) as the contract performance may be extended, an amount equal to 5% of total contract value shall be deducted from each payments to be made against the contract as retention money.
- vi. Payment milestones inception till project sign off can be decided with mutual consent with successful bidder.

## TERMS & CONDITIONS

1. Procurement shall be done as per KPPRA procurement rules on single stage two envelopes basis.
2. The Technical bid should clearly mention Make, Model and Brand, (Specification of bid) without quoting the price and must mention the warranty period.
3. Company seal / stamp must be fixed on both Technical Proposal and Financial Proposal.
4. All the firms applied for the Tender must provide documents in line with the Mandatory requirements and should qualify the Technical Evaluation Criteria. If any firm fails to qualify the Technical Evaluation Criteria, then Financial Proposal of the same will not be opened.
5. Any bid submitted after due date and time will not be entertained.
6. Call Deposit of five percent (5%) of the total bid amount must be attached with financial proposal in separate sealed envelope in favor of The Bank of Khyber. Bank Guarantee (performance) in favour of the Bank of Khyber 5% of the total bid shall be provided by the successful bidder after award of work/contract/purchase order. Bank Guarantee (performance) validity shall be for 1 years.
7. All prices quoted must be in PKR inclusive of all Taxes applicable, such as GST, Income Tax, etc. Prices quoted other than PKR will be converted to PKR as per KPPRA Rule 39 (2).
8. The prices quoted shall remain valid for 120 days, after the date of opening the tender.
9. The Bank of Khyber will not be responsible for any costs or expenses incurred by bidders in connection with the preparation or delivery of bids.

10. BID document terms and & conditions shall prevail over the company/firm own standard terms and conditions.
11. Contract terms and conditions shall be in line with BID documents terms & conditions and mutually agreed terms and conditions.
12. Failure to supply items within specified time period will invoke and cancellation of PO. In addition to that, two percent (5%) Call Deposit (CDR) amount will be forfeited and Bank Guarantee shall be called for encashment.
13. No conditional bid will be acceptable.
14. No negotiations and revised bids will be allowed.

***Incharge Procurement, Head office,***  
**The Bank of Khyber, State Life Building, Peshawar.**  
**Phone: 091-5279690, 5274399**  
**UAN: 091-111-95-95-95**

## **ANNEXURE-A**

### TECHNICAL SPECIFICATIONS

(SCOPE OF WORK ON TURNKEY BASIS)

DATA CENTER INFRASTRUCTURE (99.99% Uptime Required)

DATA CENTRE INFRASTRUCTURE SOLUTION KEY DELIVERABLES:

Functional areas that will establish a Data Center include, but are not limited to, the following major components of Critical Physical Infrastructure:

- ✓ Civil Works (Dismantling, Construction of DC & Movement of Existing Conference Room)
- ✓ Complete Electrical Works with Allied Data Center Power System (N+1)
- ✓ Data Center In-row Precision Cooling System
- ✓ Hot Aisle Containment Solution
- ✓ 42U Racks Complete with all Accessories.
- ✓ Complete DCIM Solution
- ✓ Access Controls
- ✓ CCTV System
- ✓ Fire Detection and Suppression System
- ✓ Networking Complete Passive Work including tagging and fluke test report

## DATA CENTRE PHYSICAL INFRASTRUCTURE

The requirement of new energy efficient, best-of-breed N+1 data center with room based Precision Cooling and Redundant UPS for cabinets and standard-density server as well as communication racks, to build a complex and highly advanced data center, designed for optimal energy efficiency.

The prime objective of the Bank of Khyber is state of the art Solution.

The Bidder should, therefore, use the descriptions of the proposed products/services as minimal essential requirements, Each Bidder is strongly encouraged to demonstrate in its Bid any goods, or services that such Bidder believes is necessary or advisable, in addition to or in lieu of, those specifically identified in this Bid in line with the requirements of TIA-942-A/B. The interested bidders are therefore requested to visit the site as per date and time mentioned *in Key Events* before proposal submission to understand and finalize technical requirements and product/item quantities.

## SPECIAL INSTRUCTIONS

- 1) The data center should be compliant with TIA-942-A/B, standard and guidelines.
- 2) The interested bidders will provide data center topology as part of the technical proposal, which shall cover the following:
  - a) Redundant 35 - 40 KW or higher on technical grounds In-Row Precision Cooling System complete with all aspects
  - b) Redundant UPS for 20kVA/20KW P.F = 1 Load
  - c) Smart Aisle Containment for All racks and in row cooling
  - d) Centralized Monitoring System to cover Precision Cooling, UPS, PDUS, Water Leakage, and others etc.
  - e) Fire Suppression system NOVEC 1230 with VESDA System
  - f) Rack Metered PDU's 32A 24 way or higher
  - g) Total no. of racks in data center will be planned for 6 racks for IT equipment's (2 High Density, 4 Low Density).
  - h) The cold airflow must be completely and physically separated from hot airflow to improve the cooling efficiency.
  - i) The battery backup time of the data center must be designed as per 10-15 min, Overload capacity 125% for 10-15 min
  - j) Genset to provide power facility to data center (Future Provisioning, currently building generator will be utilized).

- k) Training of minimum two engineers will be required from principle on all installed equipment's/modules.
- 3) The data center should adopt the concept of modularized design to ensure the flexible expansion. The data center must integrate Data Centre IT & Network Racks, Power, Monitoring & Management, Cabling, Networking, Lighting, Fire Detection & Suppression, Civil & Electric Work, Grounding & Earthling, Precision Cooling Systems, Security & Access Control infrastructure as well as EMS system.
- 4) The installation and deployment will strictly follow the standard. The installation of racks and cabinets will be done in alternating pattern to create "hot" and "cold" separation.
- 5) Cooling system needs to be provided and a climate monitoring system needs to be deployed. The data center will comply with Redundant Components. Bidders need to specify all requirements to achieve the service levels envisioned in this tier.
- 6) Estimating Power needs is also required by the interested bidders for Tier based (rating). Power will be made available from the utility. UPS, multiple circuits to the systems and equipment, determining power requirements is a part of this RFP for appropriately sizing the system. Power estimation must be made to accommodate required redundancy and future growth.
- 7) We will achieve Tier II compliance, in addition please quote quantity / rating according to the tender requirement.

## PRICE SCHEDULE / FINANCIAL COST SHEET

### BILL OF QUANTITIES DATA CENTER - DISASTER RECOVERY BACKUP FACILITY

#### AT BRR TREASURY OFFICE KARACHI

SR. #	DESCRIPTION OF ITEMS	BRAND (If Applicable)	A/UNIT	QTY	UNIT RATE (RS)	TOTAL AMOUNT (RS)
<b>Conventional Data Center Infrastructure Solution</b>						
1	<b>CIVIL WORK</b>					
1.1	Dismantling of existing material / wall cutting inside room and movement of existing facility to new location		JOB	1		
1.2	Construction of ICT Facility as per drawing, specifications and design in compliance with TIA 942 A/B.		JOB	1		
1.3	6inch Solid block wall with plaster / leveling complete in all aspects.		Sft	100		
1.3	Simple Paint work 2 layers inside data center	ICI equivalent or higher	Sft	1000		
1.4	Aluminum composite panel 4mm double side aluminum film with pvc covering fixing on galvanized insulated framing.		Sft	1		
1.5	6mm Vacuum double-glazed tempered glass partition with aluminum frame for data Center.		Sft	1		
1.6	6mm Vacuum tempered glass door with aluminum frame for Data Center.		Sft	21		



1.7	MS fire rated door for emergency exit in data center only		Nos.	1		
1.8	MS frame with meshing wire to cover outdoor units of HVAC system & Iron frame for 4 outers		Nos.	1		
1.9	Manual Shoe Cover Dispenser Machine		Nos.	1		
1.10	Dismantling of GYPSUM Ceiling		JOB	1		
<b>2</b>	<b>ELECTRICAL PANELS</b>					
2.1	<b>300 AMPS AUTOMATIC TRANSFOR SWITCH PANEL:</b> 300Amps ATS panel flooring standing, MS sheet 16-gauge power coated gray color with digital volt / ammeter and phase indication lights		Nos.	1		
	1 x source for K-electric, 1 x source from Genset for ATS input and single output, consisting of MCCB's, Contactor base, control fuse protection, and relay combination etc. (Without SPD)					
2.2	<b>Centralized floor standing distribution panel</b> MS sheet 16 - Gauge, dull black color, top and bottom cable entry with energy analyzer and <b>Surge Protection Device (SPD)</b> phase indication lights		Nos.	1		
	* Composite panel consist of UPS in/out and HVAC section					
	* Ups output power distribution section					
	* Non-critical Load distribution section					
<b>3</b>	<b>POWER CABLES</b>					
3.1	Supply of 95 SQ.MM (LSZH) 4CORE CU/PVC/PVC Main cable from Building D.B & GENSET to D.C	Pakistan Cable/Fast Cable or equivalent	Mtr.			
3.2	Supply of 35 SQ.MM (LSZH) 4CORE CU/PVC/PVC Main Power cable for D. B's to D. B's connectivity.	Pakistan Cable/Fast Cable or equivalent	Mtr.			
3.3	Supply of 70 SQ.MM (LSZH) 1CORE CU/PVC/PVC Main Power cable for D. B's to D. B's connectivity.	Pakistan Cable/Fast Cable or equivalent	Mtr.			

3.4	Supply of 10 SQ.MM (LSZH) 4CORE CU/PVC/PVC Power cable for UPS in/out and bypass.	Pakistan Cable/Fast Cable or equivalent	Mtr.			
3.5	Supply of 10 SQ.MM (LSZH) 4CORE CU/PVC/PVC Power cable for CRAC's unit	Pakistan Cable/Fast Cable or equivalent	Mtr.			
3.6	Supply of 10 SQ.MM (LSZH) 1CORE CU/PVC/PVC Earth cable for all D.C equipment's.	Pakistan Cable/Fast Cable or equivalent	Mtr.			
3.7	Supply of 6 SQ.MM (LSZH) 3CORE CU/PVC/PVC Power cable for PDU's power supply.	Pakistan Cable/Fast Cable or equivalent	Mtr.			
3.8	Supply of CU/PVC/PVC Power cable 1.5 & 2.5 sq.mm for switch, phase plate and tech boxes etc.		Coil			
<b>4</b>	<b>ELECTRICAL ACCESSORIES</b>					
4.1	16AX 4 Gang 1 Way Switch (Indoor type) with back box		Nos.	2		
4.2	Wall mounted type - 32 Amp 3 Pole Wall Socket IP44		Nos.	12		
4.3	13A 3 Pin Flat Switched Socket with back box x Point for UPS		Nos.	3		
	13A International Switched Socket with back box x Point for Row					
	1 Gang Dual Shuttered Cat 6 Data Outlet with back box x Point for Data					
4.4	Led Lighting fixture 38-watt 4K-Lumens 600mm x 600mm or 300mm x 1200mm Color Temp 4K with hanging/holding accessories		No	12		
4.5	Emergency lights 18-watt with built-in battery pack for data center		No	2		
4.6	100-watt wall mounted/suspension type Motion Sensor for lights		No	2		
4.7	LED lighting strip pasted type on racks (color white)		No	9		
4.8	Miscellaneous & Wiring Accessories (lugs, boots, Cable Tie, Tape, insulation, pva pipe, flex pipe, junction box, elbows, Tee etc.		JOB	1		
<b>5</b>	<b>GROUNDING &amp; BONDING</b>					

5.1	<b>EARTH PIT:</b> bare copper wire buried from Copper ground rod to building wall, with (10 ft. x ¾ in) copper-clad steel ground rods spaced every along the ground loop. (Resistance should be less than 5 Ohms)		JOB	2		
5.2	<b>GROUNDING BUS BAR:</b> Grounding bus bars, electroplated bus bar on wall insulators.					
5.3	<b>EARTH LEAD / CONDUCTOR:</b> Single core PVC insulated, green color copper earthing conductors for equipment grounding / potential equalization of all metallic structure, equipment etc.					
5.4	<b>EPC GROUNDING &amp; BONDING:</b> Main bus bar on wall/D. B, Lugs with boots terminated on server rack bus bar/Ground point etc.					
6	<b>MECHANICAL WORK</b>					
6.1	<b>PRECISION COOLING COPPER PIPING</b> Supply, laying and fitting of Discharge line copper pipe size with insulation testing, refrigerant filling where necessary, supports and metallic trunking complete in all aspect.		JOB	1		
6.2	Supply, laying and fitting of PPRVC UPVC pipe of appropriate size for condensate water, drain with insulation where necessary, complete with metallic trunking, in all aspect.		JOB	1		
6.3	<b>CABLE TRAY SYSTEM (INSIDE ROOM ONLY)</b>					
6.4	Supply of basket type Mesh tray with hangers' support epoxy powder coated black color.		JOB	1		
6.5	Supply of Cable ladder with hangers' support powder coated customize color.		JOB	1		
7	<b>ANTI STATIC - ESD (STATIC DISSIPATIVE) VINYL FLOORING FOR (DATA CENTER)</b>					
7.1	Supply of Vinyl flooring SD (Static Dissipative) (UK) vinyl flooring, tested to IEC 61340-4-1 2003 RG, the flooring must have a resistance between 1x106 to 1x109 ohms, thickness 2mm		JOB	1		
	(UK) Red Bag self-level smoothing compound @3mm thickness with Installation of vinyl flooring.					
	Supply of flor Cove former (UK) with fixing.					
	Bonding strip (plus/square)					
	1-inch black rubber cove former					

8	<b>N+1 PRECISION COOLING SYSTEM</b>					
8.1	<p>A high capacity precision air conditioning unit designed to maximize sensible cooling for high efficiency operation. This feature enables data center designs to leverage row-based architecture for both sensible cooling of the IT load and humidity control of the entire data center.</p> <p>Following is the required functionality:  35KW (minimum) to 40 KW / or higher Cooling capacity unit according to the site survey  Single input (400V/400V)/3Ph/50Hz  Replaceable Humidifier  Environment monitoring for humidity, temperature and leak detection.  Dedicated dehumidification  Direct drive (L10-500,000hour bearing life) motor and frequency controller.  Modules should be equipped with two fan assemblies.  Frequency Controlled Motor  Electrical Panel: The electrical panel should contain the contactors, starters, overload protection devices, and input power disconnects.  Evaporator Coil Thermal Drip Tray (as per manufacturer design)  Main Power Circuit Breaker(s)  Network Management Card  Evaporator Freeze Protection  Predictive Failure Warnings  High Return Air Temperature Capability  Refrigeration System Monitoring  Digital Scroll Compressors or Brushless VFD Scroll Compressor or equivalent solution can fulfill the purpose. Suction and discharge pressures should be monitored and electronically controlled.</p>		Nos.	2		
9	<b>HOT AISLE CONTAINMENT SOLUTION</b>					
9.1	<p>Customize hot aisle containment for total 9 racks (if rack mounted UPS solution proposed including precision cooling system and ups rack), with 1 side push/pull door, MS angle framing covered with poly vinyl chloride or acrylic sheet.</p>			1		

<b>10</b>	<b>METERED PDU (0U)</b>				
10.1	PDU 32A, 230V, MPS, IEC309, C13 & C19 or more, Meter 0U (C13 & C19 is must)		Nos.	8	
10.2	PDU 11kW, 230V, C13 & C19 or more (C13 & C19 is must)		Nos.	4	
10.3	Load Transfer Switch or STS 32A hardwired input, 4-way C13 and 4-way C19 outlets or equivalent		Nos.	2	
<b>11</b>	<b>KVM IP BASE 16 PORT</b>				
11.1	18.5" LCD Console Tray with 16-Port KVMSWITCH along with all accessories.		Nos.	2	
<b>12</b>	<b>42U RACKS</b>				
12.1	Rack 42U 600 mm X 1070 mm or equivalent C/W Perforated doors with lock and key; Split side panels; EIA mounting rails; levelling feet ; color black ; Curved front door (4 Conventional Racks 5KW, 2 High Density Racks 10KW)		Nos.	6	
12.2	1U Blanking Panel (a pack of 10)		Nos.	5	
12.3	2U Blanking Panel or equivalent covering blanking U space (a pack of 10)		Nos.	5	
<b>13</b>	<b>DCIM Solution</b>				
13.1	4-COMPORT extension card		Nos.	1	
13.2	8 Digital Input Analog Input extension card		Nos.	1	
13.3	LED Beacon Alarm with Sound		Nos.	1	
13.4	Temperature and Humidity Sensor		Nos.	6	
13.5	Water Leakage Sensor 10m		Nos.	2	
13.6	Temperature Sensor		Nos.	6	
13.7	Smoke Sensor		Nos.	2	
13.8	Configuration, commissioning for RDU		Nos.	1	
<b>14</b>	<b>UPS 20KVA/20KW (Standard Backup)</b>				
14.1	20KVA/20KW UPS 400V 3:3 UPS with VRL batteries (standard backup time) (Non-Modular / Preferred rack mounted for containment solution)		Nos.	4	
14.2	External battery cabinet		Nos.		
14.3	SNMP/WEB Management		Nos.		
14.4	Startup & Commissioning		Nos.		
<b>15</b>	<b>Access Control System</b>				

15.1	Finger Print + Card Reader + Pin Code Reader - Access Control System - for 2000 Users - Reading time 1 seconds - TCP/IP Based System - RS232 Connectivity - LCD Screen - Built in Access Control System & log monitoring software		Nos.	2		
15.2	Electromagnetic Lock/ Bolt Lock					
15.3	Infrared / push button					
15.4	RFID card					
15.5	LAN / Power Cabling					
<b>16</b>	<b>NETWORKING (RACK TO RACK CONNECTIVITY)</b>					
16.1	CAT-6 UTP 48 Port Patch Panel Loaded with Cat-6 I/O's, Straight, 2U (3.50 in) x 19.0 in	3M or Equivalent	Nos.	4		
16.2	CAT-6 UTP 24 Port Patch Panel Loaded with Cat-6 I/O's, 1U (1.75 in) x 19.0 in.	3M or Equivalent	Nos.	6		
16.3	Cable Manager Panel, Horizontal Finger Duct, Single-sided, 2U (1.75 in) x 19.0 in.	3M or Equivalent	Nos.	12		
16.4	Category 6 (CAT6) 24 AWG solid bare copper, 4-pair UTP cable.	3M or Equivalent	Roll	4		
16.5	Cat 6 RJ 45 to RJ 45 Patch Cable, UTP, PVC, 1m	3M or Equivalent	Nos.	64		
16.6	Cat 6 RJ 45 to RJ 45 Patch Cable, UTP, PVC, 3m	3M or Equivalent	Nos.	64		
16.7	Other Accessories include connector, boots, coupler / Material/ tagging etc.	3M or Equivalent	JOB	1		
16.8	25 Years Certification will be required from Principle		JOB	1		

<b>17</b>	<b>FIRE SUPPRESSION SYSTEM NOVEC1230 FOR DATA CENTER ONLY</b>					
17.1	FIRE SUPPRESSION SYSTEM NOVEC 1230 for Data Center CONVENTIONAL CONTROL PANEL x 1 SMOKE DETECTOR WITH BASE x 4 ABORT SWITCH x 1 6" FIRE ALARM BELL x 1 <i>(As per bidder recommendation)</i> Lbs. NOVEC Cylinder all accessories Discharge Nozzle x 2 Novec1230 GAS & ACTUATOR MECHANICAL FITTING WITH MS SCHEDULE 40 HIGH PRESSURE PIPING, POWER CABLING AND ACCESSORIES AS PER NOVEC 1230 PIPING STANDARDS.	(UK / USA)	JOB	1		
17.2	VESDA VLF 250 smoke detector Additional Relay Card VESDA VPS Power Supply 7.0 AH Battery Surface Mounted PSU Switch Pipe Lengths Short Radius Bend Sample Point Kit Flexible Tube equal tee 25mm End Cap Pipe Clip ABS Adhesive Sample Point decal Qty labels	(UK / USA)	JOB	1		
17.3	Hand Held Fire Extinguisher for comms Room		Nos.	2		
<b>18</b>	<b>RODENT REPELLENT DEVICE</b>					
18.1	RODENT REPELLENT DEVICE		Nos.	2.		

<b>19</b>	<b>CCTV SYSTEM</b>					
19.1	2MP Dome/Bullet camera for Data Center		Nos.	4		
19.2	NVR Configurable and Customizable with future expansion (PoE)		Nos.	1		
19.3	4TB SATA hard drive specially for video recording (for 15 days recording minimum)		Nos.	1		
19.4	40" Inch Led tv with HDMI cable		Nos.	2		
			<b>TOTAL GOODS AMOUNT</b>			-
20	<b>INSTALLATION / SERVICES / COMMISSIONING OF ABOVE WORK</b>		1	JOB		-
			<b>TOTAL SERVICES AMOUNT</b>			-



(To be submitted on Rs. 100 Stamp Paper)

Head Procurement  
Procurement Department  
The Bank of Khyber,  
Peshawar.

**Subject: Undertaking to Execute the Contract**

Dear Sir,

1. We/I, the undersigned tenderer do hereby confirm, agree and undertake to do following in the event our / my tender for supply/Services of \_\_\_\_\_ to BOK is approved and accepted:
2. That we / I will into and execute the formal contract, a copy of which has been supplied to us / me, receipt whereof is hereby acknowledge and which has been studied and understood by me / us without any change, amendment, revision or addition thereto, within a period of seven days when required by BOK to do so.
3. That all expense in connection with the preparation and execution of the contract including stamp duty will be borne by us / me.
4. That we / I shall deposit with BOK the amount of security as specified in the contract which shall continue to be held by BOK until three months after expiry of the contract period.
5. That in event of our / my failure to execute the formal contract within the period of seven days specified by BOK the Earnest money held by BOK, shall be fortified and we / I shall not question the same.

Tenderer's Signature: \_\_\_\_\_

Name in Full: \_\_\_\_\_

Designation \_\_\_\_\_

Address \_\_\_\_\_

Phone / Fax # \_\_\_\_\_

CNIC \_\_\_\_\_

Seal \_\_\_\_\_

Date \_\_\_\_\_

## Layout / Dimensions

