GOVERNMENT OF PAKISTAN
REVENUE DIVISION
FEDERAL BOARD OF REVENUE
[CUSTOMS WING]

Project Management Unit - Integrated Transit Trade Management System (ITTMS)
Central Asian Regional Economic Cooperation – Regional Improving Borders Services
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Ph: 051-9450009, 9450016; Fax: 051-9450006
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C.No.1(81)Cus-Project/ITTMS.PSW/1420   Islamabad, the 13th April, 2022

Subject: **Minutes of 1st Pre-Bid Meeting held at PMU CAREC-RIBS (ITTMS) Hqrs, Islamabad on 7th April, 2022 for Procurement of Information Communication Technology Products and Services for Pakistan Single Window (PSW) Against ICB No. PMU-ITTMS(ICB)/PSWDC/ICT-2022 dated 29th March 2022**

Lot 1: Software: Supply, Installation, Configuration, & Implementation of Softwares for PSW.
Lot 2: Hardware: Supply, Installation, Configuration, Testing, Training & Implementation of Networks and Security, Compute (Servers) and Storage Equipment for PSW.

The 1st pre-bid meeting was convened and chaired by the Project Director CAREC-RIBS (ITTMS), FBR. Following PMU-ITTMS and PSW representatives attended;

PMU-ITTMS:
1. Mr. Ali Raza Hanjra – Project Director CAREC-RIBS (ITTMS), FBR
2. Mr. Noman Siddiqui – ICT & Security Specialist (PMSC)
3. Mr. Faisal Pervaiz – Chief Accounts Officer CAREC-RIBS (ITTMS), FBR
4. Mr. Azam Dil Khan – M&E Officer CAREC-RIBS (ITTMS), FBR

PSW Team:
1. Mr. Athar Faheem – Digital Strategy Advisor (PSW)
2. Mr. Sheeraz Abdul Rasheed – Head of Network/Infrastructure (PSW)
3. Mr. Abu Asim – Head of Software Development (PSW)

2. The participants of bidders (list attached as Annex A) were briefed by The Project Director – CAREC-RIBS (ITTMS), FBR on the bidding documents particularly the contents of Bidding Document, Bid Data Sheet, Conditions of the Contract and Documentation to be submitted along with detail of the project.

3. During the meeting, the participants were invited to raise any queries to know the nature of the observations and were advised to submit their written queries to PMU-ITTMS for written replies/advice by giving a cut off time i.e. COB Friday, 8th April, 2022.

4. The meeting was concluded with a vote of thanks to and from all the participants. The queries received in PMU-ITTMS are attached as Annex "B".

(Muhammad Ali Raza)
Project Director
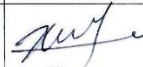
Copy to:
1. The SA to Member Customs (Operations), FBR, Islamabad.
2. The Senior Transport Specialist, ADB, Manila.
3. Mr. Gul Rehman, Project Director PSW, FBR, Islamabad.
4. Mr. Aftab Haider, CEO, PSW, FBR, Islamabad.
5. Mr. Afnan Khan, Additional Director, PSW, FBR.
6. The Team Leader, PMSC, Islamabad.

Pre-Bid Meeting for Procurement of ICT Products and Services for PSW at PMU ITTMS, FBR

DATED: 07.04.2022

Sr. No	NAME	DESIGNATION/ ORGANIZATION	EMAIL	CONTACT	SIGNATURE
1.	Ali Raza	PD ITTMS FBR			
2.	ATHAR FAHIM	ADVISOR			
3	Sheemt A. Rasheed	Head of Inform – PSW			
4.	Noman Siddiqui	ICT & Sec Spcl. CAREC-RIAL			
5.	Abdul Wahid	Manager Proc PSW	Procurement @ psw.gov.pk	051- 9211129	
6	Abul Asim	Head of Software (PSW) Developmt	abul.asim@PSW.gov.pk	0333-3182957	
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10	firdous lodhi	CMC	fkhan @ cmc.net.pk	0300-5033835	
11	Shahbaz Akhtar	CNS	Shahbazakhtar@cns-e.com	0320-41433325	

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	Qasim ul Isial	General Manager Sales TECHACCESS PAKISTAN	qaim@techaccesspak.com	0300-8556911	

Sr. No	NAME	DESIGNATION/ ORGANIZATION	EMAIL	CONTACT	SIGNATURE
	Wajid Ali	Manager Sales. Premier Systems Pvt Ltd	wali@premier.com.pk	0301-8503285	

OBSERVATIONS / QUERIES RAISED BY FIRMS IN FIRST PRE-BID MEETING DATED 7TH APRIL 2022 AND THEIR RESPONSES

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
1	Tech Access	Administrative / Financial	N/A	Earnest Money/Bid Security may kindly be reduced and fixed in PKR	Please follow the RFP Clause.
		Administrative / Financial	N/A	Kindly clarify Bid Security instrument, would Bank Guarantee and Insurance Guarantees be accepted?	Callable bid security shall be in the form of readily encashable financial instrument e.g. Demand Draft, Pay Order/Bankers Cheque.
		Administrative / Financial	N/A	Please clarify if CFR or DDP prices are to be quoted?	CIP - Clearance and delivery at the specified locations including all charges/freight/levy till the prescribed destination(s) to be handled by the bidder. Only Duties and Taxes to be paid by PSW.
		Administrative / Financial	N/A	Please clarify if bid is submitted in USD, payments would also be made in USD or converted to PKR on the date of each payment?	In US Dollars.
		Administrative / Financial	N/A	Performance Guarantee also to be provided in USD? If so, kindly allow PKR submission	In US Dollars.
		Administrative / Financial	N/A	For Performance Guarantee, it is requested to reduce value to 5%	Please follow the RFP Clause.
		Administrative / Financial	N/A	Can Insurance Guarantee also be submitted as Performance Guarantee?	No.
		Administrative / Financial	N/A	Please clarify if 10% mobilization advance payment would be issued against an advance payment guarantee?	Please follow GCC 16.1(a)

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
2	DWP Technologies (Pvt) Ltd.	Technical (Blade Servers)	Pg. 6-104 - Section 6: Schedule of Requirements 1.1 Blade Servers Half Height	RFP Clause: 1 Blade Servers Half Height Recommendation: To be generalized to acceptable size for all brands. The terminology used in the RFP is to be generalized as 2-Socket Blade Server	Half Height to be considered as 2 Socket Full Height to be considered as 4 Socket
		Technical (Blade Servers)	Pg. 6-104 - Section 6: Schedule of Requirements 1.1 Blade Servers Half Height	RFP Clause: 32GB microSD Flash Memory Card Recommendation: The quantity is required as single 32GB microSD Flash memory Card or Redundancy required as 2 x 32GB microSD Flash Memory Card	Please follow the RFP Clause
		Technical (Blade Servers)	Pg. 6-104 - Section 6: Schedule of Requirements 1.1 Blade Servers Half Height	RFP Clause: Storage Controller Recommendation: As the blade server are diskless compute operating on microSD card please clarify the need of Storage controller in the blade configuration.	Please follow the RFP Clause
		Technical (Blade Servers)	Pg. 6-106 - Section 6: Schedule of Requirements 1.2 Blade Servers Full Height	RFP Clause: 1.2 Blade Servers Full Height Recommendation: The terminology used in the RFP is to be generalized as 4-Socket Blade Server	Half Height to be considered as 2 Socket Full Height to be considered as 4 Socket

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Blade Servers)	Pg. 6-106 - Section 6: Schedule of Requirements 1.2 Blade Servers Full Height	RFP Clause: 32GB microSD Flash Memory Card Recommendation: The quantity is required as single 32GB microSD Flash memory Card or Redundancy required as 2 x 32GB microSD Flash Memory Card	Please follow the RFP Clause
		Technical (Blade Servers)	Pg. 6-106 - Section 6: Schedule of Requirements 1.2 Blade Servers Full Height	RFP Clause: Storage Controller Recommendation: As the blade server are diskless compute operating on microSD card please clarify the need of Storage controller in the blade configuration.	Please follow the RFP Clause
		Technical (Blade Servers)	Section 6: Schedule of Requirements 2 GB flash-backed write cache	RFP Clause: 2 GB flash-backed write cache (Brand Specific) Recommendation: 4GB RAID Card memory or higher	Cache preservation feature is required. Equivalent feature is acceptable.
		Technical (Rackmount Servers)	Pg. 6-109 - Section 6: Schedule of Requirements 2.0 Rack Mount Server for Production Database	RFP Clause: 2 GB flash-backed write cache (Brand Specific) Recommendation: 4GB RAID Card memory or higher	Cache preservation feature is required. Equivalent feature is acceptable.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Rackmount Servers)	Pg. 6-109 - Section 6: Schedule of Requirements 2.0 Rack Mount Server for Production Database	RFP Clause: 1 x 750GB+ NVMe Gen3+ High Performance Low Latency Write Intensive SFF (HHHL form factor, PCI 3.0 x 4) Recommendation: To be generalized to acceptable size for all brands	Please follow the RFP Clause. Bidders may offer higher capacity.
		Technical (Rackmount Servers)	Pg. 6-109 - Section 6: Schedule of Requirements 2.0 Rack Mount Server for Production Database	RFP Clause: Form Factor: minimum 3U Recommendation: 2 - Socket are available in 2U form factor, required as minimum 2U+	2U is also acceptable.
		Technical (Rackmount Servers)	Pg. 6-110 - Section 6: Schedule of Requirements 3.0 Rack Mount Server for Production Reporting	RFP Clause: 2 GB flash-backed write cache (Brand Specific) Recommendation: 4GB RAID Card memory or higher	Cache preservation feature is required. Equivalent feature is acceptable.
		Technical (Rackmount Servers)	Pg. 6-110 - Section 6: Schedule of Requirements 3.0 Rack Mount Server for Production Reporting	RFP Clause: 1 x 750GB+ NVMe Gen3+ High Performance Low Latency Write Intensive SFF (HHHL form factor, PCI 3.0 x 4) Recommendation: To be generalized to 800GB, Enterprise, NVMe, Write Intensive or higher.	Please follow the RFP Clause. Bidders may offer higher capacity.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Rackmount Servers)	Pg. 6-110 - Section 6: Schedule of Requirements 3.0 Rack Mount Server for Production Reporting	RFP Clause: Form Factor: minimum 3U

Recommendation: 2 - Socket are available in 2U form factor, required as minimum 2U+ | 2U is also acceptable. |
| | | Technical (Rackmount Servers) | Pg. 6-111 - Section 6: Schedule of Requirements 4.0 Rack Mount Server for Production Backup Server | RFP Clause: 2 GB flash-backed write cache (Brand Specific)

Recommendation: 4GB RAID Card memory or higher | Cache preservation feature is required. Equivalent feature is acceptable. |
| | | Technical (Rackmount Servers) | Pg. 6-112 - Section 6: Schedule of Requirements 5.0 Rack Mount Server for Production Data Warehouse | RFP Clause: 2 GB flash-backed write cache (Brand Specific)

Recommendation: 4GB RAID Card memory or higher | Cache preservation feature is required. Equivalent feature is acceptable. |
| | | Technical (Rackmount Servers) | Pg. 6-113 - Section 6: Schedule of Requirements 6.0 Rack Mount Server for Production IRMS | RFP Clause: 2 GB flash-backed write cache (Brand Specific)

Recommendation: 4GB RAID Card memory or higher | Cache preservation feature is required. Equivalent feature is acceptable. |

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Rackmount Servers)	Pg. 6-114 - Section 6: Schedule of Requirements 7.0 Rack Mount Server for Production Dev-QA – Database	RFP Clause: 2 GB flash-backed write cache (Brand Specific) Recommendation: 4GB RAID Card memory or higher	Cache preservation feature is required. Equivalent feature is acceptable.
		Technical (Rackmount Servers)	Pg. 6-114 - Section 6: Schedule of Requirements 7.0 Rack Mount Server for Production Dev-QA – Database	RFP Clause: 8353H Processor core to memory ratio is not balanced Recommendation: Reconsider the Specifications for DEV-QA Server	Please follow the RFP Clause.
		Technical (Rackmount Servers)	Pg. 6-115 - Section 6: Schedule of Requirements 8.0 Rack Mount Server for Production Dev-QA - PA Model Server	RFP Clause: 2 GB flash-backed write cache (Brand Specific) Recommendation: 4GB RAID Card memory or higher	Cache preservation feature is required. Equivalent feature is acceptable.
		Technical (Rackmount Servers)	Pg. 6-116 - Section 6: Schedule of Requirements 9.0 Rack Mount Server for Production Dev-QA - Warehouse Server	RFP Clause: 2 GB flash-backed write cache (Brand Specific) Recommendation: 4GB RAID Card memory or higher	Cache preservation feature is required. Equivalent feature is acceptable.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Rackmount Servers)	Pg. 6-116 - Section 6: Schedule of Requirements 9.0 Rack Mount Server for Production Dev-QA - Warehouse Server	RFP Clause: 8352Y Processor core to memory ratio is not balanced Recommendation: Reconsider the Specifications for Dev-QA - Warehouse Server	Please follow the RFP Clause.
		Technical (Rackmount Servers)	Pg. 6-117 - Section 6: Schedule of Requirements 10.0 Rack Mount Server for Production Dev-QA - Reserved Server	RFP Clause: 2 GB flash-backed write cache (Brand Specific) Recommendation: 4GB RAID Card memory or higher	Cache preservation feature is required. Equivalent feature is acceptable.
		Technical (Rackmount Servers)	Pg. 6-118 - Section 6: Schedule of Requirements 11.0 Rack Mount Server for Production Management Server	RFP Clause: 2 GB flash-backed write cache (Brand Specific) Recommendation: 4GB RAID Card memory or higher	Cache preservation feature is required. Equivalent feature is acceptable.
		Technical (Rackmount Servers)	Pg. 6-118 - Section 6: Schedule of Requirements 11.0 Rack Mount Server for Production	RFP Clause: 8253 or 6326 Processor core to memory ratio is not balanced Recommendation: Reconsider the Specifications for Production Management Server	Please follow RFP Clause.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
			Management Server		
		Technical (Storage Solution for Virtualized Hosts)	Pg. 6-119 - Section 6: Schedule of Requirements 12.0 Storage Solution for Virtualized Hosts	RFP Clause: 102TB usable capacity on Hypervisor required with high performance low latency (< 2 ms) drives with RAID protection and 3 Hot Spares for protection with minimum 150,000 IOPS Recommendation: 102TB usable capacity on Hypervisor required with high performance low latency (< 2 ms) drives with RAID protection as per manufacturer best practice with minimum 150,000 IOPS.	Please follow RFP Clause.
		Technical (Storage Solution for Virtualized Hosts)	Pg. 6-119 - Section 6: Schedule of Requirements 12.0 Storage Solution for Virtualized Hosts	RFP Clause: Cache shall exclude any performance acceleration module, Flash Cache, PAM card, SSD Cache Recommendation: The offered storage array need to performance focused.	Please follow RFP Clause.
		Technical (Storage Solution for Virtualized Hosts)	Pg. 6-119 - Section 6: Schedule of Requirements 12.0 Storage Solution for Virtualized Hosts	RFP Clause: Offered Storage Array shall be given with minimum of 192GB usable with dual controller Can we read this as total cache per array	Yes.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Storage Solution for Physical servers)	Section 6: Schedule of Requirements 13.0 Storage Solution for Physical servers.	RFP Clause: 100TB usable capacity on Hypervisor required with high performance low latency (< 2 ms) drives with RAID protection and 3 Hot Spares for protection with minimum 150,000 IOPS Recommendation: 100TB usable capacity on Hypervisor required with high performance low latency (< 2 ms) drives with RAID protection as per manufacturer best practice with minimum 150,000 IOPS.	Please follow RFP Clause.
		Technical (Purpose built backup appliance)	Section 6: Schedule of Requirements	RFP Clause: The storage array should support up to 3 PB capacity Recommendation: "The storage array should support up to 1PB capacity"	Please follow RFP Clause.
		Technical (Purpose built backup appliance)	Section 6: Schedule of Requirements	RFP Clause: 2 x 32Gb Fiber Channel adapter with required Cables Recommendation: "2 x 16Gb Fiber Channel adapter with required Cables"	Please follow RFP Clause.
		Technical (Purpose built backup appliance)	Section 6: Schedule of Requirements	RFP Clause: Offered backup appliance shall support Raid 1, 5 and Raid 6 Recommendation: "Offered backup appliance should have RAID protection as per best practices of the manufacturer."	Please follow RFP Clause.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Administrative / Financial	Pg. 6-93 - Section 6: Schedule of Requirements 2. Delivery and Completion Schedule	RFP Clause: 90 days Recommendation: Kindly extend the delivery timelines to atleast 120 Days as due to Pandemic there is parts supply shortage globally.	Please follow given timelines in the RFP.
		Administrative / Financial	Pg. 8-262 - Section 8: Special Conditions of Contract GCC 16.1	RFP Clause: (b) On Shipment: The Purchaser shall pay the Supplier 80% of the Contract Price of the IT products shipped through irrevocable confirmed letter of credit opened in favor of the Supplier in a bank in its country under the ADB commitment procedure, upon submission of documents specified in SCC Clause 12.1. Recommendation: Kindly confirm if 80% payment will be made on delivery of the equipment ?	Clause is self-explanatory and clear.
		Administrative / Financial	Pg. 2-33 - Section 2: Bid Data Sheets ITB 21.1	RFP Clause: Lot 2 = US$72,000.00 Recommendation: Kindly confirm if we can offer Bid security in PKR by using the exchange rate of bid security issuance by Bank ?	No change is allowed.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
3	CNS Engineering	Administrative / Financial	N/A	Delivery time mentioned in RFP is 90 days. Request is to please extend the delivery timelines by 120 days as mostly OEMS are still facing issues in manufacturing/supply chain.	No change is allowed. Please adhere to the timelines.
		Administrative / Financial	N/A	Bid Security asked to submit in USD. Request is to please allow us to submit in PKR by fixing the dollar rate for Bid security.	No change is allowed.
		Administrative / Financial	N/A	Clarity is needed if the bid submission is in DDP	CIP (PSW Offices)
		Technical (Network)	1.0 Core Switch	Switch should support 1G/10G (copper, Fiber), 25G/40G/100G line cards from day one. As per best practice at core end ONLY Optic cards are preferred , though its support asked for future . Request is to revise it as 1G/10G optical.	Please read the revised clause as: Switch should support 1G/10G (Fiber/Optical), 25G/40G/100G line cards from day one.
		Technical (Network)	2.0 ToR Switches	Switching throughput of the switch should be at least 4 Tbps. To have a healthy competition and participation min of 3.5Tbps or above asked	3.5 Tbps or above is allowed.
		Technical (Network)	2.0 ToR Switches	Forwarding throughput capacity of at least 2 Bpps. Related to above point min of 900mpps or above will suffice the need of the design .	900 mpps or above is allowed.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Network)	2.0 ToR Switches	Switch should support at least 8 x 100G/40G QSFP28 ports. As per design 2 x 40G ports are used , 2 more being for future use. Req it to revise this req to min 4 or above	Minimum 4 or above.
		Technical (Network)	3.0 Core Router	IPSec encryption throughput should be at least 20 Gbps As per design WAN link is of 1G even with multiple wan links IPSEC bandwidth of 8 Gb will be enough even for future prospective . Req is to revise this requirement to MIN 8gbps or above	Minimum 8 Gbps or above is allowed.
		Technical (Network)	5.0 Data Center Firewall	Firewall throughput PPS 165Mpps or above As per over all specs of DC firewalls, 30Mpps or 35Mpps fulfills the requirements. Requesting to modify it to 30Mbps or more to have healthy competition. Furthermore VPNs will be terminated on WAN routers so significance of IPSEC here is not pivotal	Firewall throughput PPS 40 Mpps or above

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Network)	5.0 Data Center Firewall	Interfaces (Loaded) Minimum 12 x10G SFP+,1GSFP ports, 4x100G/40G As per proposed network diagram of RFP, 2 ports are used for connecting with Core switch at 40G. Therefore request to modify it to 2*100G+2*40G or 4*40G ports or higher	4*40G ports or higher is acceptable.
		Technical (Network)	5.0 Data Center Firewall	App control throughput: 60Gbps or more As per over all specs of DC firewalls, 40Gbps or 50Gbps fulfills the requirements. Requesting to modify it to 50Gbps or more to have healthy competition.	Minimum 50 Gbps or Higher is acceptable.
		Technical (Storage)	Capacity & Scalability	102TB usable capacity on Hypervisor required with high performance low latency (< 2 ms) drives with RAID protection and 3 Hot Spares for protection with minimum 150,000 IOPS. 102TB usable capacity on Hypervisor required with 3.84TB or 7.68TB Enterprise NVME disk with RAID protection and 3 Hot Spares for protection with minimum 150,000 IOPS.	Please follow the RFP Clause.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Storage)	Protocols	Offered Storage array shall support all well-known protocols like FC, iSCSI, VMware Virtual Volumes (VVols) FC & ISCSI, etc. Offered Storage array shall support all well-known protocols without additional devie like FC, iSCSI, NFS, CIFS, VMware Virtual Volumes (VVols) FC & ISCSI, etc.	Please follow the RFP Clause.
		Technical (Storage)	Virtualization Support	VMware Site Recovery Manager (SRM) Integration Virtualization API Integration: VMware: VAAI and VASA. Hyper-V: Offloaded Data Transfer (ODX) and Offload Copy for File VMware Site Recovery Manager (SRM) Integration Virtualization API Integration: VMware: VAAI and VASA. Hyper-V: Offloaded Data Transfer (ODX)	Offload Copy for File feature is in Non-Mandatory Clause.
		Technical (Server/Storage)	Purpose Built Backup Appliance	200TB is useable capacity or raw capacity?	Useable capacity.
		Technical (Server/Storage)	Purpose Built Backup Appliance	What is the backup Size (front-end data) for example PSW will backup "A" machine 2 times a day if the size of that machine is 10GB which means it will occupy 20GB data instead of 10GB frontend data)	It shall be decided as per the backup policy.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Server/Storage)	Purpose Built Backup Appliance	Purpose build backup appliance mentioned in RFP and appliance is the complete data protection solution which includes Software, CPU, Memory and Storage. will you still need any additional Virtual/Physical server for software other than appliance?	Offered solution should offer complete in-built functionality. No additional item is required.
		Technical (Server/Storage)	Purpose Built Backup Appliance	How many AIX/HP-UX/Solaris server running in PSW environment.	Not available as of today.
		Technical (Server/Storage)	Purpose Built Backup Appliance	Backup data replication is required from PR to any other site?	Yes. But not from the Purpose Built Backup Appliance.
		Technical (Network)	NMS	No of devices / Servers / Storages / Application you want to monitor through NMS and also define no of interfaces per device want to monitor?	No of interfaces/device to be procured under this RFP plus additional 20% capacity.
		Technical (Network)	NMS	Any Scalability Engine are required? like Additional polling engine (increase the polling capacity of your deployment) Additional web server (increase the no of concurrent user) High Availability (failover protection of your primary NMS server)	Not required.
		Technical (Network)	NMS	There is no restriction on platforms like cloud-based and on-prem. Can we go with any of the platforms?	On-Prem solution is required.
		Technical (VCS)	Video Conferencing System	Concurrent meeting licenses are not specified	5 Licenses

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (VCS)	Video Conferencing System	For video conference recording Wil PSW will provide a separate server from list of servers procuring or dedicated server should be included.	Server should be part of the solution.
		Technical (VCS)	Video Conferencing System	Expected concurrent meeting count along with meeting duration and video retention duration need to be known.	As per OEM best practices.
		Technical (VCS)	Video Conferencing System	Display screen 70 Inches should be part of Video end point , but mentioned in MCU section	Part of video end point.
		Technical (VCS)	Video Conferencing System	Support for office 360 is asked, it will be supported but if need to be working from day 1 than need to add extra software & hardware. clarification needed what "Should Support " actually mean.	Required from Day 1.
4	Premier	Technical (Software)	Page # 56, Serial # 4	Microsoft Exchange Server 2019 single box deployment will be result in single point of failure	Please follow the RFP Clause.
		Technical (Software)	Page # 56, Serial # 4	As Email Server Microsoft Exchange Server 2019 is required, is there any Email Gateway Spam filtering device is available with customer	Not available.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Software)	Page 61, Serial # 11	Customer has mentioned Single Rack Mount Server for Management Server for vCenter which is single point for failure. If, customer required VMware vCenter Server and VMware other management components on separate cluster in High-Availability there must be at least 3 nodes will be required	1 additional node may be quoted in addition for redundancy purpose including required licenses and any other item required to implement the redundancy factor.
		Technical (Software)	Page # 103, Note	Partner will provide support backed by VMware OEM Support Team, As VMWare Support Team never commit resolution time so penalty clause should be removed	Shall be considered as Response Time.
		Technical (Microsoft)	N/A	For Microsoft, RFP requirement is to quote licenses under the OLP program which has been retired by Microsoft last year in December 2021 so, we will propose license of Windows Server/Exchange Server & End Point Protection under the CSP program. Please comment on this.	Perpetual Licensing under Open Value Program with Software Assurance model is required.
		Technical (Microsoft)	N/A	Windows Server 2019 edition is not orderable, we provide the customer Windows server 2022 & they can downgrade it to 2019. Please confirm your understanding on this.	Acceptable.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Microsoft)	N/A	In Microsoft, we have 02 available standalone options of Endpoint Protection, they have to share the required functionality that they want to adopt. Microsoft Defender for Endpoint URLs for their reference; https://docs.microsoft.com/en-us/microsoft-365/security/defender-endpoint/microsoft-defender-endpoint?view=o365-worldwide https://docs.microsoft.com/en-us/microsoft-365/security/defender-endpoint/minimum-requirements?view=o365-worldwide https://docs.microsoft.com/en-us/office365/servicedescriptions/microsoft-365-service-descriptions/microsoft-365-tenantlevel-services-licensing-guidance/microsoft-365-security-compliance-licensing-guidance#microsoft-defender-for-endpoint https://docs.microsoft.com/en-us/microsoft-365/security/defender-endpoint/defender-endpoint-plan-1-2?view=o365-worldwide	In case bidder is proposing Microsoft Defender Endpoint solution then Plan 2 shall be required.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Servers)	N/A	Do customer has the rack, power and cooling space available. Please note that some of the Blade chassis require 800 x 1200 mm dimensions.	Co-location space at the SP premises would be provided.
		Technical (Servers)	N/A	All the blade chassis will be placed on single site/single rack?? If yes, we can propose multi chassis solution otherwise we have to propose single chassis solution for each site.	Single site / multiple racks. Please follow RFP Clause.
		Technical (Servers)	N/A	Can we propose FCoE Solution ?	Please follow RFP Clause.
		Technical (Servers)	N/A	Single SD Card is required or Dual ? we have following options to configure: a. 32GB microSD Flash Memory Card b. 32GB microSD RAID 1 USB Boot Drive	Please follow RFP Clause.
		Technical (Servers)	N/A	In addition to SD card, do we need to offer HDD's/SSD's. Please note that 32GB SD Card is not appropriate for Blades to install VMware ESXi Hypervisor, We would recommend to choose 256GB (Raid 1) BOSS Cards / equivalent for ESXi installation on Blades Server wherever VMware ESXi Hypervisor installation required.	Please follow RFP Clause.
		Technical (Servers)	N/A	By 4 * 25/50 Gbps Ethernet connections to interconnect modules we assume 4 Ports are required per server. By this assumption can we propose 2 x 25/50 G Dual Port Mezzanine Cards per server. Please confirm.	Please follow RFP Clause.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Servers)	N/A	Using 4 x 25/50G Ports on blade servers require additional interconnect modules in blade chassis. We would recommend to use converged network adaptor. This will reduce the number of interconnect modules in blade chassis.	Please follow RFP Clause.
		Technical (Servers)	N/A	For Full Height Server one x 32 GB Dual Port FC Mezzanine Card is mentioned. For full height Servers we can offer 2 x FC Mezzanine Cards. Please confirm one FC Mezzanine Card is required.	Please follow RFP Clause.
		Technical (Servers)	N/A	For Rack Mount Servers minimum 3U + form factor is mentioned while the requirements can be fulfilled with 2U rack mount servers. Can we quote 2U rack mount server? Please confirm.	2U is acceptable.
		Technical (Servers)	N/A	For Rack Mount Servers 1100 W Power supplies can full fill the requirement. Do we still need to quote 1500 W power supplies?	Power supply should not be under-powered and compatible with machine and required resources. Must also be backed by OEM recommendation.
		Technical (Servers)	N/A	For Rack Mount Servers Display port is mentioned. Please note that in Servers only VGA Port is available.	VGA Port is required.
		Technical (Servers)	N/A	For Rack Mount Servers 1 x Network Management Port is mentioned. From this we assume its iLO/iDRAC/iLOM port. Please confirm.	Confirm.
		Technical (Servers)	N/A	No 1G Ports are mentioned in Rack Mount Servers only 25/50G SFP28 Ports are mentioned. Do we need to quote any 1G Ports? Please confirm.	Please follow RFP Clause.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Servers)	N/A	Do we need to quote 1G Management Switch ? Please confirm.	Please follow RFP Clause.
		Technical (Servers)	N/A	Minimum 1.6TB Enterprise NVMe Mixed Use AG Drive, AIC, PCIe 4.0 NVME Drives are available to quote.	Please follow the RFP Clause. Bidders may offer higher capacity.
		Technical (Servers)	N/A	For Production Dev-QA Database Server Intel Xeon Platinum 8353H which is 2.5 GHz 18 Core Processor is not available. We have Intel Xeon-Platinum 8358 2.6GHz 32-core Processor. Can we quote single Intel Xeon-Platinum 8358 2.6GHz 32-core Processor. Please confirm.	**or bette**r is already mentioned.
		Technical (Servers/Storage)	N/A	For storage should we propose effective capacity or useable capacity is required ?	Please follow the RFP Clause.
		Technical (Servers/Storage)	N/A	For tape library 3U form factor is mentioned. Can we offer 4 U rack mount tape library. 3U rack mount tape library is vendor specific.	4U is acceptable.
		Technical (Servers/Storage)	N/A	For disk based backup appliance its mentioned Offered backup appliance shall support Raid 1, 5 and Raid 6. Please note that backup appliances only support hardware RAID 6 to reduce the risk of data loss due to disk failure. Please change this statement to RAID 6.	Please follow the RFP Clause.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Network)	N/A	Please share current network and security devices details with quantity and vendor so, sizing and integration to kept in mind for proposing network and security solutions, i.e SDN-WAN or SIEM/SOAR or NMS.	No current infrastructure is in place. Please follow RFP specifications and BOQ. No of interfaces/device to be procured under this RFP plus additional 20% capacity.
		Technical (Network)	N/A	SDN-WAN Features support is required from day one but SDN-WAN controller requirements are not mentioned, Please confirm SDN-WAN Controller is required?	Not required.
		Technical (Network)	N/A	Current data center is controller less or controller base if controller please share controller details.	There is no data center present at the moment.
		Administrative / Financial	N/A	As per RFP, Bid Security requirement is as follows: For LOT 1: US $ 25,000 For LOT 2: US $ 72,000 So can we submit Bid Security in Pak Rs. Instead of US $, please advise.	Please follow RFP clause.
		Administrative / Financial	N/A	As the bidder has to offer CIF/CPT price in US$, so we assume that customer will establish L/C of contracted amount with bidder's foreign OEM/Vendor for release of payments. Please advise.	As per the prescribed incoterms, CIP is required. L/C would be opened in the name of bidder.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Administrative / Financial	N/A	As per RFP, delivery time mentioned as 90 days (12 weeks) but keeping in view COVID-19 pandemic, material constraints. Delivery of hardware items would note be possible in 90 days, therefore please extended the delivery timeline to 22 to 24 weeks.	Please follow RFP timelines.
5	Megaplus	Technical	SIEM solution	How many physical and virtual server that need to be collect the logs from SIEM Solution?	Approx. 150

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
6	Infotech	Administrative / Financial	N/A	With reference to the above-mentioned subject. We are very keen to participate in your "Procurement of Information Communication Technology Products and Services for Pakistan Single Window (PSW)". However, the commercial terms & conditions are not favorable and there is a need for your kind attention to rationalize the same. As you aware of the fact the US $ has fluctuated massively in the market, and the Rupee to Dollar parity has changed drastically. The situation is not only volatile but completely unpredictable as well. In the current circumstances it is impossible for any vendor that prices are locked, as of the conversion rate of date of bid submission. You are aware, all such procurement is made from international vendors (IBM, MS, CISCO etc.) and all payments are made to them in USD. It is therefore necessary that we also receive equivalent USD from our customers. In the light of above we request you to amend the terms and allow the bidders to quote and invoice in USD with payments to be made in equivalent PKR using conversion rates applicable on the date of payment. We sincerely believe that in current circumstances this is the only practical solution.	Prices to be quoted in USD and payments would also be made in USD.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Administrative / Financial	N/A	Furthermore, it is also requested that bid submission date may also be kindly extended once your kind office agrees on the above suggestion.	Bid submission date will remain the same.
7	TMR Consulting	Technical (Software)	N/A	As discussed during the pre-bid meeting your RFP for LOT#1 says OLP licenses for different Microsoft Products are required, whereas Microsoft has moved to CSP Program for future licenses requirement (please see the link for details: https://www.microsoft.com/en-us/licensing/news/open_license_purchasing_is_moving In this regard it is requested to amend the RFP document mentioning CSP Licenses for windows and SQL	Perpetual Licensing under Open Value Program with Software Assurance model is required.
8	Arwentech	Commercial	Section 3 : Evaluation & Qualification Criteria Sub section 2.3: Experience and Technical Capacity:	The asked value of contracts is on a higher side for both lots Instead of value, PSW may please ask if the Bidder in the last 5 years have implemented (Singly or in JV) at least one project of similar nature. For both Lots.	Please follow RFP Clause.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Commercial	Sub section: 2.4.2 Size of Operation (Average Annual Turnover)	Average annual turnover should be such that skilled SI organizations with a focus on niche areas and expertise within, are able to participate. In Pakistan competent SI organizations with Tier1 partnerships with principal vendors have average annual turnover of around 300M to 500M. These SI organizations are providing services in similar areas (as asked in RFP by PSW) to FSI, Telcos and Public sector customers with a very tough SLAs. We request the values be reasonable in PKR:	Please follow RFP Clause.
		Commercial	Section 4: Bidding Forms Form FIN - 3: Cash Flow Capacity (Not Applicable)	In bid docs it is Not Applicable. We feel this should be applicable to gauge the financial capability of the bidder to deliver the project. Bidder should be required to submit bank reference and support letter to deliver the single project of $5m plus. Bidder should submit satisfying documents to PSW along with bid which demonstrates its capability to do so.	Please follow RFP Clause.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Commercial	40.4 Page 1-28,	The amount of the performance security shall generally be not more than 20% of the contract price; GCC 18.4 Page 8-263 Discharge of the Performance Security shall take place: Pursuant to GCC Sub-Clause 18.4, after delivery and acceptance of the Goods, the performance security shall be reduced to five percent (5%) of the Contract to cover the Supplier's warranty obligations in accordance with GCC Clause 28.3. Clarity on exact percentage of Performance Security is requested please.	Performance Security to be submitted is equivalent to **10 percent** of the contract price.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical	Section: 2.3.2	The Bidder shall demonstrate that the IT products offered have: For Lot 2 (i) been in production for at least one (01) year, and (ii) been sold the equipment of similar type and specification over the last three (03) years; iii) been in operation for a minimum of three (03) years Query: Would this apply for all components in LOT#2 in the project or different products in different projects separately can serve the purpose?	Yes. It applies on all components in Lot. 2 having similar type and specifications.
		Technical	N/A	Deliveries : delivery in 90 days would be challenging due to post Covid situation.	Please follow RFP Clause.
		Technical	N/A	Implementation Location: Is it Karachi or Islamabad. Please confirm	All equipment in Karachi. 1 x Interactive Board for Islamabad.
		Technical	N/A	Is the solution only required for DC, any DR involved in the solution? Please confirm.	No DR is involved.
		Technical	N/A	Load Balancer and WAF can be proposed with single appliance, Will bundled WAF and load balancer be considered? Please confirm.	Should be separate.
		Technical	N/A	2xVC required, it is required for different location? if yes please specify the locations.	Karachi.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical	N/A	Branch routers are asked but there is no mention of other equipment for branches? Please share further details and scope of work in branches.	Branch router is required at PSW Karachi office (supply only).
		Technical	Page 6-125 clause 14.0	(Purpose build backup Appliance): Capacity and Scalability mentioned to be of 200 TB storage, need confirmation for 200TB to be as useable and not raw capacity?	Useable capacity.
		Technical	N/A	For all appliances (WAF) / Load Balancer / NMS and others requirements are physical appliances or bidder can file the Virtual appliances as well?	Physical only.
9	CMC	Commercial	Pg. No. 32 Section 2, Bid Datasheet	RFP Clause: ITB 14.6(b)(i); For ICT products and services offered from outside the Purchaser's country, the Bidder shall quote prices using the following Incoterms: CIP 2020 (Destination Karachi). Query: as the prices requested are on CIP 2020 (Karachi) basis. Please clarify who will be responsible for custom clearance including duties / tax etc.	Clearance and delivery at the specified locations including all charges/freight/levy till the prescribed destination(s) to be handled by the bidder. Only Duties and Taxes to be paid by PSW.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Commercial	Pg. No. 32 Section 2, Bid Datasheet	ITB 14.6(b)(ii); In addition to the above, the Bidder shall quote prices for ICT products and services offered from outside the Purchaser's country using the following Incoterms: CIP 2020 (Destination Karachi) Query: as the prices requested are on CIP 2020 (Karachi) basis. Please clarify who will be responsible for customs clearance including duties / tax etc.	Clearance and delivery at the specified locations including all charges/freight/levy till the prescribed destination(s) to be handled by the bidder. Only Duties and Taxes to be paid by PSW.
		Commercial	Pg. No. 32 Section 2, Bid Datasheet	ITB 14. (c); All costs incidental to the performance of the services, as incurred by the Supplier Yes. Query: Please elaborate this statement.	Please refer to Section-1, Instructions to Bidders, Pg. No. 1-16, Clause 14.6
		Commercial	Pg. No. 32 Section 2, Bid Datasheet	TB 14.8 The prices quoted by the Bidder shall not be adjustable. Query: if Government of Pakistan applies additional tax / duty then that will be adjusted and charged from customer accordingly.	Any change in the duty/taxes structure would be accommodated by PSW.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Commercial	Pg. No. 33 Section 2, Bid Datasheet	ITB 21.1 The bid security for Lot 1 and Lot-2 shall be in USD for the following amounts in favor of the Federal Board of Revenue: Lot 1 = US$25,000.00 Lot 2 = US$72,000.00 Bid-Security Declaration shall not be acceptable. Query: 1) Can this Bid security be submitted in currency PKR? 2) Will payment to vendor be made in USD?	1. In US Dollars only. 2. Yes, in US Dollars.
		Commercial	Pg. No. 34 Section 2, Bid Datasheet	ITB 31.5 The Purchaser's evaluation of responsive Bids will NOT take into account technical factors, in addition to cost factors. Query: Please elaborate this statement.	Technically compliant, lowest priced bid.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Commercial	Pg. No. 35 Section 2, Bid Datasheet	ITB 37.1 The currency that shall be used for bid evaluation and comparison purposes to convert all bid prices expressed in various currencies into a single currency is: US$. The source of the selling exchange rate shall be: National Bank of Pakistan. The date for the selling exchange rate shall be: Bid Submission Date. Query: What is the currency decided by FBR PSW for payment to vendor i.e. USD or PKR?	Payments to be paid by ADB through PMU CAREC-RIBS (ITTMS) in US Dollars.
		Commercial	Pg. No. 42 Section 3: Evaluation & Qualification Criteria	Minimum average annual turnover of For Lot 1: US$3,750,000.00 For Lot 2: US$10,000,000.00 calculated as total payments received by the Bidder for contracts completed or under execution over the last Three (03) years. Query: 1) What is the formula to derive AVG Annual Turnover? 2) Kindly reduce AVG turnover to PKR 700M for LOT-2 3) Last 05 years turn-over shall be requested from bidders	Please follow RFP Clause.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Network)	Pg. No. 134 1.0 Core Switch	Switch should support 1G/10G (copper, Fiber), 25G/40G/100G line cards from day one. Query: As per network diagram in the RFP, Core switch do not require 1G/10G copper, if there is requirement, then fiber ports can be used through optical to copper cables. It is requested to change Switch Should Support 1G/10G (Fiber) line card	Please read the revised clause as: Switch should support 1G/10G (Fiber/Optical), 25G/40G/100G line cards from day one.
		Technical (Network)	Pg. No. 136 2.0 ToR Switches	Switching throughput of the switch should be at least 4 Tbps. Query: Considering the port density (48x10G/25G and 6*100G/40G) total throughput of 3.6Tbps fulfills the requirements therefore request to modify it to 3.6Tbps or more.	3.5 Tbps or above is allowed.
		Technical (Network)	Pg. No. 136 2.0 ToR Switches	Forwarding throughput capacity of at least 2 Bpps. Query: As per 3.6Tbps throughput, 800 Mpps or 900 Mpps fulfills the performance requirements, therefore request to modify it to 900 Mpps or more.	900 mpps or above is allowed.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Network)	Pg. No. 136 2.0 ToR Switches	Switch should support at least 8 x 100G/40G QSFP28 ports. Query: As per proposed network diagram of RFP, 2*40G ports are connected for TOR switches. So 4*40G (2 for current requirement and 2 for future) can suffice the need, therefore request to modify it to 4*40G/100G or more ports.	Minimum 4 or above.
		Technical (Network)	Pg. No. 138 3.0 Core Router	IPSec encryption throughput should be at least 20 Gbps Query: As per proposed network diagram of RFP, the routers are connected on 1G, even considering future scalability, 8-10Gbps IPSec encryption would suffice the requirement. Request to modify it to 10Gbps or higher	Minimum 8 Gbps or above is allowed.
		Technical (Network)	Pg. No 140-142 5.0 Data Center Firewall	Firewall throughput PPS 165Mpps or above Query: As per over all specs of DC firewalls, 30Mpps or 35Mpps fulfills the requirements. Requesting to modify it to 30Mbps or more to have healthy competition	Firewall throughput PPS 40 Mpps or above

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Network)	Pg. No 140-142 5.0 Data Center Firewall	Interfaces (Loaded) Minimum 12 x10G SFP+,1GSFP ports, 4x100G/40G Query: As per proposed network diagram of RFP, 2 ports are used for connecting with Core switch at 40G. Therefore request to modify it to 2*100G+2*40G or 4*40G ports or higher	4*40G ports or higher is acceptable.
		Technical (Network)	Pg. No 140-142 5.0 Data Center Firewall	App control throughput: 60Gbps or more Query: As per over all specs of DC firewalls, 40Gbps or 50Gbps fulfills the requirements. Requesting to modify it to 50Gbps or more to have healthy competition.	Minimum 50 Gbps or Higher is acceptable.
		Technical (Server/Storage)	Pg. No. 205 Blade Chassis	Some of the brands as like Lenovo, Inspure and Xfusion has end of sale for blade system due to technology is going to change from Blade to High Density servers. Please check from vendors who are going to participate that can the provide the five years roadmap for blade Chassis and Servers. Please open the opportunity for those vendors who want quote high density servers Please ask the 5 years roadmap from all vendors	Please follow the RFP Clause.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Server/Storage)	Pg. No. 208 Blade Servers Half Height	Some of the brands as like Lenovo, Inspure and Xfusion has end of sale for blade system due to technology is going to change from Blade to High Density servers. Please check from vendors who are going to participate that can the provide the five years roadmap for blade Chassis and Servers. Please open the opportunity for those vendors who want quote high density servers Please ask the 5 years roadmap from all vendors	Please follow the RFP Clause.
		Technical (Server/Storage)	Pg. No. 212 Blade Servers Full Height	Some of the brands as like Lenovo, Inspure and Xfusion has end of sale for blade system due to technology is going to change from Blade to High Density servers. Please check from vendors who are going to participate that can the provide the five years roadmap for blade Chassis and Servers. Please open the opportunity for those vendors who want quote high density servers Please ask the 5 years roadmap from all vendors	Please follow the RFP Clause.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Server/Storage)	Pg. No. 219 Rack Mount Server for Production Backup Server	Fans: 6 hot plug fans, N+1 redundant Query: It should be as per manufacturer standard as the specifications of Fans are different for different vendors as it might be 4 Fans but with better quality and standards with bigger in size as compare to the 6 Fans. So kindly need consideration to choose as per manufacturer standard	4 x Fans are acceptable if they are compatible with machine and provide required redundancy. Must also be backed by OEM recommendation.
		Technical (Server/Storage)	Pg. No. 220 Rack Mount Server for Production Data Warehouse	Fans: 6 hot plug fans, N+1 redundant Query: It should be as per manufacturer standard as the specifications of Fans are different for different vendors as it might be 4 Fans but with better quality and standards with bigger in size as compare to the 6 Fans. So kindly need consideration to choose as per manufacturer standard	4 x Fans are acceptable if they are compatible with machine and provide required redundancy. Must also be backed by OEM recommendation.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Server/Storage)	Pg. No. 222 Rack Mount Server for Production IRMS	Fans: 6 hot plug fans, N+1 redundant Query: It should be as per manufacturer standard as the specifications of Fans are different for different vendors as it might be 4 Fans but with better quality and standards with bigger in size as compare to the 6 Fans. So kindly need consideration to choose as per manufacturer standard	4 x Fans are acceptable if they are compatible with machine and provide required redundancy. Must also be backed by OEM recommendation.
		Technical (Server/Storage)	Pg. No. 223 Rack Mount Server for Production Dev-QA – Database	Fans: 6 hot plug fans, N+1 redundant Query: It should be as per manufacturer standard as the specifications of Fans are different for different vendors as it might be 4 Fans but with better quality and standards with bigger in size as compare to the 6 Fans. So kindly need consideration to choose as per manufacturer standard	4 x Fans are acceptable if they are compatible with machine and provide required redundancy. Must also be backed by OEM recommendation.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Server/Storage)	Pg. No. 224 Rack Mount Server for Production Dev-QA - PA Model Server	Fans: 6 hot plug fans, N+1 redundant Query: It should be as per manufacturer standard as the specifications of Fans are different for different vendors as it might be 4 Fans but with better quality and standards with bigger in size as compare to the 6 Fans. So kindly need consideration to choose as per manufacturer standard	4 x Fans are acceptable if they are compatible with machine and provide required redundancy. Must also be backed by OEM recommendation.
		Technical (Server/Storage)	Pg. No. 226 Rack Mount Server for Production Dev-QA - Warehouse Server	Fans: 6 hot plug fans, N+1 redundant Query: It should be as per manufacturer standard as the specifications of Fans are different for different vendors as it might be 4 Fans but with better quality and standards with bigger in size as compare to the 6 Fans. So kindly need consideration to choose as per manufacturer standard	4 x Fans are acceptable if they are compatible with machine and provide required redundancy. Must also be backed by OEM recommendation.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Server/Storage)	Pg. No. 227 Rack Mount Server for Production Dev-QA - Reserved Server	Fans: 6 hot plug fans, N+1 redundant Query: It should be as per manufacturer standard as the specifications of Fans are different for different vendors as it might be 4 Fans but with better quality and standards with bigger in size as compare to the 6 Fans. So kindly need consideration to choose as per manufacturer standard	4 x Fans are acceptable if they are compatible with machine and provide required redundancy. Must also be backed by OEM recommendation.
		Technical (Server/Storage)	Pg. No. 228 Rack Mount Server For Production Management Server	Fans: 6 hot plug fans, N+1 redundant Query: It should be as per manufacturer standard as the specifications of Fans are different for different vendors as it might be 4 Fans but with better quality and standards with bigger in size as compare to the 6 Fans. So kindly need consideration to choose as per manufacturer standard	4 x Fans are acceptable if they are compatible with machine and provide required redundancy. Must also be backed by OEM recommendation.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Server/Storage)	Pg. No. Nil Rack Mount Server for Ngnix	Fans: 6 hot plug fans, N+1 redundant Query: It should be as per manufacturer standard as the specifications of Fans are different for different vendors as it might be 4 Fans but with better quality and standards with bigger in size as compare to the 6 Fans. So kindly need consideration to choose as per manufacturer standard	4 x Fans are acceptable if they are compatible with machine and provide required redundancy. Must also be backed by OEM recommendation.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Server/Storage)	Pg. No. 231 Storage Solution for Virtualized Servers	Virtualization API Integration: VMware: VAAI and VASA. Hyper- V: Offloaded Data Transfer (ODX) and Offload Copy for File Query: 1. ODX Already include lun copy and file copy feature 2. ODX is an open standard declared by MicroSoft, but "Offload Copy for File" this term only be declared by one certain vendor, not state by other vendors even MicroSoft itself,it is not an open and standard technical term. to keep tender general and forbid unique vendor parameter we request to only remain "Offloaded Data Transfer (ODX)" statement and exclude "Offload Copy for File" statement 3.if customer only need SAN Storage, then no reason to place "Offload Copy for File" statement here	Offload Copy for File feature is in Non-Mandatory Clause.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Server/Storage)	Pg. No. 234 Storage Solution for Physical Servers	Virtualization API Integration: VMware: VAAI and VASA. Hyper-V: Offloaded Data Transfer (ODX) and Offload Copy for File Query: 1. ODX Already include lun copy and file copy feature 2. ODX is an open standard declared by MicroSoft, but "Offload Copy for File" this term only be declared by one certain vendor, not state by other vendors even MicroSoft itself,it is not an open and standard technical term. to keep tender general and forbid unique vendor parameter we request to only remain "Offloaded Data Transfer (ODX)" statement and exclude "Offload Copy for File" statement 3.if customer only need SAN Storage, then no reason to place "Offload Copy for File" statement here	Offload Copy for File feature is in Non-Mandatory Clause.
10	PTCL	Commercial	Delivery timeline	Delivery timeline of 90 Days Query: Delivery time line is need to be extend from 90 to 120 Days	No change is allowed. Please adhere to the RFP timelines.
		Commercial	Delivery Location	Query: Kindly mention Location of delivery	All equipment in Karachi. 1 x Interactive Board for Islamabad.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Commercial	Quoted Price	Query: Quoted Price will be in CFR or FOB? Or Can be Quoted in DDP USD?	CIP - Clearance and delivery at the specified locations including all charges/freight/levy till the prescribed destination(s) to be handled by the bidder. Only Duties and Taxes to be paid by PSW.
		Commercial	Bid Security	Query: Bid security in PRR would be acceptable?	Please follow RFP Clause.
		Commercial	PO Value	Lot 1: $1.5 Million Lot 2: $4.3 Million Query: PO value needs to be revised for healthy and maximum competition Lot 1: $ 100,000/ Lot 2: $ 1 Million *This needs to be revised for our Participation	Please follow RFP Clause.
		Technical (Network)	1.0 Core Switch	Switch should support 1G/10G (copper, Fiber), 25G/40G/100G line cards from day one. Query: As per network diagram in the RFP, Core switch do not require 1G/10G copper, if there is requirement, then fiber ports can be used through optical to copper cables. Request to modify it to 1/10G fiber please.	Please read the revised clause as: Switch should support 1G/10G (Fiber/Optical), 25G/40G/100G line cards from day one.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Network)	2.0 ToR Switches	Switching throughput of the switch should be at least 4 Tbps. Query: Considering the port density (48x10G/25G and 6*100G/40G) total throughput of 3.6Tbps fulfills the requirements, therefore request to modify it to 3.6Tbps or more.	3.5 Tbps or above is allowed.
		Technical (Network)	2.0 ToR Switches	Forwarding throughput capacity of at least 2 Bpps. Query: As per 3.6Tbps throughput, 800 Mpps or 900 Mpps fulfills the performance requirements, therefore request to modify it to 900 Mpps or more.	900 mpps or above is allowed.
		Technical (Network)	2.0 ToR Switches	Switch should support at least 8 x 100G/40G QSFP28 ports. Query: As per proposed network diagram of RFP, 2*40G ports are connected for TOR switches. So 4*40G (2 for current requirement and 2 for future) can suffice the need, therefore request to modify it to 4*40G/100G or more ports.	Minimum 4 or above.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Network)	3.0 Core Router	IPSec encryption throughput should be at least 20 Gbps Query: As per proposed network diagram of RFP, the routers are connected on 1G, even considering future scalability, 8-10Gbps IPSec encryption would suffice the requirement. Request to modify it to 10Gbps or higher	Minimum 8 Gbps or above is allowed.
		Technical (Network)	5.0 Data Center Firewall	Firewall throughput PPS 165Mpps or above Query: As per over all specs of DC firewalls, 30Mpps or 35Mpps fulfills the requirements. Requesting to modify it to 30Mbps or more to have healthy competition	Firewall throughput PPS 40 Mpps or above.
		Technical (Network)	5.0 Data Center Firewall	Interfaces (Loaded) Minimum 12 x10G SFP+,1GSFP ports, 4x100G/40G Query: As per proposed network diagram of RFP, 2 ports are used for connecting with Core switch at 40G. Therefore request to modify it to 2*100G+2*40G or 4*40G ports or higher	4*40G ports or higher is acceptable.
		Technical (Network)	5.0 Data Center Firewall	App control throughput: 60Gbps or more Query: As per over all specs of DC firewalls, 40Gbps or 50Gbps fulfills the requirements. Requesting to modify it to 50Gbps or more to have healthy competition.	Minimum 50 Gbps or Higher is acceptable.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Storage)	Capacity & Scalability	102TB usable capacity on Hypervisor required with high performance low latency (< 2 ms) drives with RAID protection and 3 Hot Spares for protection with minimum 150,000 IOPS. Query: 102TB usable capacity on Hypervisor required with 3.84TB or 7.68TB Enterprise NVME disk with RAID protection and 3 Hot Spares for protection with minimum 150,000 IOPS.	Please follow the RFP Clause.
		Technical (Storage)	Protocols	Offered Storage array shall support all well-known protocols like FC, iSCSI, VMware Virtual Volumes (VVols) FC & ISCSI, etc. Query: Offered Storage array shall support all well-known protocols without additional devie like FC, iSCSI, NFS, CIFS, VMware Virtual Volumes (VVols) FC & ISCSI, etc.	Please follow the RFP Clause.
		Technical (Storage)	Virtualization Support	VMware Site Recovery Manager (SRM) Integration Virtualization API Integration: VMware: VAAI and VASA. Hyper-V: Offloaded Data Transfer (ODX) and Offload Copy for File Query: VMware Site Recovery Manager (SRM) Integration Virtualization API Integration: VMware: VAAI and VASA. Hyper-V: Offloaded Data Transfer (ODX)	Offload Copy for File feature is in Non-Mandatory Clause.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
11	SiliconST	Technical (Network)	1.0 Core Switch	Switch should support 1G/10G (copper, Fiber), 25G/40G/100G line cards from day one. Query: As per network diagram in the RFP, Core switch do not require 1G/10G copper, if there is requirement, then fiber ports can be used through optical to copper cables. Request to modify it to 1/10G fiber please.	Please read the revised clause as: Switch should support 1G/10G (Fiber/Optical), 25G/40G/100G line cards from day one.
		Technical (Network)	2.0 ToR Switches	Switching throughput of the switch should be at least 4 Tbps. Query: Considering the port density (48x10G/25G and 6*100G/40G) total throughput of 3.6Tbps fulfills the requirements, therefore request to modify it to 3.6Tbps or more.	3.5 Tbps or above is allowed.
		Technical (Network)	2.0 ToR Switches	Forwarding throughput capacity of at least 2 Bpps. Query: As per 3.6Tbps throughput, 800 Mpps or 900 Mpps fulfills the performance requirements, therefore request to modify it to 900 Mpps or more.	900 mpps or above is allowed.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Network)	2.0 ToR Switches	Switch should support at least 8 x 100G/40G QSFP28 ports. Query: As per proposed network diagram of RFP, 2*40G ports are connected for TOR switches. So 4*40G (2 for current requirement and 2 for future) can suffice the need, therefore request to modify it to 4*40G/100G or more ports.	Minimum 4 or above.
		Technical (Network)	3.0 Core Router	IPSec encryption throughput should be at least 20 Gbps Query: As per proposed network diagram of RFP, the routers are connected on 1G, even considering future scalability, 8-10Gbps IPSec encryption would suffice the requirement. Request to modify it to 10Gbps or higher	Minimum 8 Gbps or above is allowed.
		Technical (Network)	5.0 Data Center Firewall	Firewall throughput PPS 165Mpps or above Query: As per over all specs of DC firewalls, 30Mpps or 35Mpps fulfills the requirements. Requesting to modify it to 30Mbps or more to have healthy competition	Firewall throughput PPS 40 Mpps or above

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Network)	5.0 Data Center Firewall	Interfaces (Loaded) Minimum 12 x10G SFP+,1GSFP ports, 4x100G/40G Query: As per proposed network diagram of RFP, 2 ports are used for connecting with Core switch at 40G. Therefore request to modify it to 2*100G+2*40G or 4*40G ports or higher	4*40G ports or higher is acceptable.
		Technical (Network)	5.0 Data Center Firewall	App control throughput: 60Gbps or more Query: As per over all specs of DC firewalls, 40Gbps or 50Gbps fulfills the requirements. Requesting to modify it to 50Gbps or more to have healthy competition.	Minimum 50 Gbps or Higher is acceptable.
		Technical (Storage)	Capacity & Scalability	102TB usable capacity on Hypervisor required with high performance low latency (< 2 ms) drives with RAID protection and 3 Hot Spares for protection with minimum 150,000 IOPS. Query: 102TB usable capacity on Hypervisor required with 3.84TB or 7.68TB Enterprise NVME disk with RAID protection and 3 Hot Spares for protection with minimum 150,000 IOPS.	Please follow the RFP Clause.

S. No.	Firm Name	Nature of Query	Ref. of SBD	Observation / Query	Reply / Response
		Technical (Storage)	Protocols	Offered Storage array shall support all well-known protocols like FC, iSCSI, VMware Virtual Volumes (VVols) FC & ISCSI, etc. Query: Offered Storage array shall support all well-known protocols without additional devie like FC, iSCSI, NFS, CIFS, VMware Virtual Volumes (VVols) FC & ISCSI, etc.	Please follow the RFP Clause.
		Technical (Storage)	Virtualization Support	VMware Site Recovery Manager (SRM) Integration Virtualization API Integration: VMware: VAAI and VASA. Hyper-V: Offloaded Data Transfer (ODX) and Offload Copy for File Query: VMware Site Recovery Manager (SRM) Integration Virtualization API Integration: VMware: VAAI and VASA. Hyper-V: Offloaded Data Transfer (ODX)	Offload Copy for File feature is in Non-Mandatory Clause.

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