GOVERNMENT OF PAKISTAN
FEDERAL BOARD OF REVENUE
(PAKISTAN RAISES REVENUE PROGRAM)
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Re. No. 2(12)/2025-Addl.Dir(P&F)/479827   Islamabad, the 6th May, 2025

Subject: **Minutes of The Pre-Bid Meeting - Procurement of Data Center Network Equipment for FBR Data Centers [2(12)/2025-Addl.Dir(P&F)/479827]**

A Pre-bid Meeting for subject procurement activity, as was pre-fixed in the Request for Bids' Specific Procurement Notice (SPN) published in leading national dailies, was held on 16th April, 2025 at the Auditorium Hall, Federal Board of Revenue (FBR), FBR House, Constitution Avenue Islamabad, Pakistan.

2.   The meeting was attended by the FBR officers and officials of Program Office, technical team of PRAL & representatives of the prospective Bidders (in person as well as online/virtually). The purpose of the Pre-bid Meeting was to provide clarifications on queries/questions raised by the representatives of the prospective bidders on the Bidding Document for subject procurement activity, to facilitate them in preparation of effective technical and financial bids.

3.   The FBR team gave a brief overview of the World Bank Procurement Guidelines and apprised on the structure of the Bidding Documents. The prospective bidders' representatives were thereafter invited to share their queries for clarification. In view of the queries raised by the bidder's representative during the meeting, the FBR team clarified the same in the light of the relevant clauses of the bidding document. and FBR system requirements.

4.   In addition, the representatives were also given two (02) days' time, to share their queries in writing also, enabling avoiding any confusion. In this regard, it was clarified that the Federal Board of Revenue would reply all the queries of the prospective bidders in the form of Minutes of Pre-bid Meeting. The Minutes of Pre-bid Meeting would be shared with all the prospective bidders who have participated in the Pre-Bid Meeting and/or would have asked for clarifications subsequent to the Meeting. Besides, the Minutes would also be uploaded on the website of the Federal Board of Revenue www.fbr.gov.pk/tenders.

5.   Accordingly, the following table provides all queries either asked during Pre-bid and/or Follow Meeting, or made in writing, by the prospective bidders and replies thereof by FBR:

Sr#	RFB Section	Specifications as per RFB	Queries/Suggestion	Clarifications by FBR
1	Schedule of Requirement Section (VII)	Technical Specifications	Do you need Solution that should support Third-party full-path visualization? Which means it Supports path combination and restoration across third-party equipment like firewalls and WAF etc. Kindly clarify	solution should provide Third-party full path visualization which means it Supports path combination and restoration across third-party vendors (Fortinet), firewalls and WAF full-path.
2	Schedule of Requirement Section (VII)	comprehensive monitoring and reporting systems will be integrated to provide enhanced visibility into network performance, ensuring the ability to proactively detect and address potential issues before they impact the network's operations.	Solution should have an intelligent analysis platform for data center networks that helps with network Management, fault diagnosis, and proactive risk identification. Like Cisco Nexus Dashboard? (It is related to Hardware based Controller requirement)	Solution should have an intelligent analysis platform for data center networks that helps with network management, fault diagnosis, and proactive risk identification.
3	Schedule of Requirement Section (VII)	General Query	We would request to add some industry standard Certification like Gartner? As currently the RFP show No market evaluation ratings for the solution? To get best available leading industry solutions.	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.
4	Schedule of Requirement Section (VII)	Solution should have multi-DC controller who can orchestrate services across domain controllers	Do you need Automatic Failover for PR/DR Site in SDN Controller?	The solution must have both options (Manual and Automatic)
5	Schedule of Requirement Section (VII)	Technical Specifications	On page 75 you have asked for 8 Uplinks for copper kindly clarify are these 8 Uplinks are of copper required or it needs to be changed?	Page No. 75, Downlink for DR Service Leaf 4 x 10 Gbps (Copper) 4 x 10 Gbps (Copper) is required twice, which makes 8 x 10 Gbps (Copper). That is not uplink.
6	Schedule of Requirement Section (VII)	Technical Specifications	forwarding capacity asked 12000 Mpps	Incorporated in Amendment no. 2 to RFB

7	Schedule of Requirement Section (VII)	General Query	Recommended that NGFW & DCN Switches has to be of same OEM for management and Configuration in DCN environment	Complete active equipment, appliances, software etc. in the solution MUST be from single OEM
8	Schedule of Requirement Section (VII)	Technical Specifications	Professional Services are required or not. Please clarify	Professional services are required from both OEM and partner.
9	BDS ITB 16.4	Period of time the Goods are expected to be functioning (for the purpose of spare parts): 07 Years from the date of acceptance of Goods	In Clause number ITB 16.4 Period of time the Goods are expected to be functioning (for the purpose of spare parts): 07 Years from the date of acceptance of Goods? Whereas you require 24x7x4 support for 5 years kindly clarify the point?	Support SLA is required for 5 Years, but the equipment, appliances, devices, software etc. must not have EOS date before 7 years
10	SCC 28.3	The period of validity of the Warranty shall be: 05 Years from the date of issuance of Final Acceptance Certificate. For purposes of the Warranty, the place(s) of final destination(s) shall be: Islamabad & Lahore.	Please clarify whether 5 years or 07 years support is required as there are two different statements in clause ITB 16.4 on [age 32 & SCC 28.5, SCC 28.6 Page #110?	Support SLA is required for 5 Years
11	Schedule of Requirement Section (VII)	General Query	Do you need Resident engineers or not for quoted solution?	Resident Engineer is not required
12	Schedule of Requirement Section (VII)	Technical Specifications - Training - Page 81	Do you need Local or foreign training kindly confirm	Only in OEM certified training facility.

13	ITB (32) clause (b)	Specific Experience: The Bidder shall demonstrate that it has successfully completed at least two (02) projects within the last five (05) years prior to the bid submission deadline, each with a value of at least PKR 200 million. These projects must have been successfully and substantially completed and must be similar/comparable in nature and complexity to the Goods and Related Services under this RFB. For a joint venture, either member or the combined entity can fulfill this requirement.	Kindly clarify the experience which is required you need 200 Million Similar Nature BOQ? Kindly clarify	Please refer to ITB (32) clause (b)
14	Schedule of Requirement Section (VII)	Switching Fabric Technical Specifications – SPINE DR Site 12.4Tbps	Switching Capacity is not relevent to Real World Performance $32 \times 100G = 3,200$ Gbps = 3.2 Tbps Full-Duplex (Bi-Directional) 3.2 Tbps $\times 2 = 6.4$ Tbps switching capacity	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.
15	Schedule of Requirement Section (VII)	Switching Fabric Technical Specifications – SPINE DR Site 3,200 mpps or more	The specified forwarding capacity for the DR-site switch appears to be abnormally high. Please revise it to 2,000 Mpps or lower to align with realistic traffic profiles and deployment requirements	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.

16	Schedule of Requirement Section (VII)	Switching Fabric Technical Specifications – Sever Leaf (Optical) Uplinks 4 x 200 Gbps (Optical)	What are the specific use cases that justify deploying 200G uplink ports? In typical spine-leaf or access-aggregation architectures utilizing 25G downlinks, 100G uplinks generally provide sufficient bandwidth and oversubscription ratios. The adoption of 200G uplinks appears to be driven by specialized high-throughput environments or vendor-specific design strategies aimed at future-proofing or product differentiation	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.
17	Schedule of Requirement Section (VII)	Switching Fabric Technical Specifications – Sever Leaf (Optical) HA Links: 2 x 200 Gbps (Optical)	What are the specific use cases that justify deploying 200G uplink ports? In typical spine-leaf or access-aggregation architectures utilizing 25G downlinks, 100G uplinks generally provide sufficient bandwidth and oversubscription ratios. The adoption of 200G uplinks appears to be driven by specialized high-throughput environments or vendor-specific design strategies aimed at future-proofing or product differentiation	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.

18	Schedule of Requirement Section (VII)	Switching Fabric Technical Specifications – Service Leaf Downlink 10 x 50 Gbps (Optical)	The inclusion of 50Gbps ports in the overall design appears inconsistent with the rest of the topology, where no other components are utilizing 50G connectivity. This suggests the specification may have been introduced to align with a specific vendor's product strategy rather than reflecting an actual architectural requirement. Kindly review and revise accordingly to maintain neutrality and technical consistency.	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.
19	Schedule of Requirement Section (VII)	Switching Fabric Technical Specifications – Multi-Role Switch for Bunker Site Downlink 8 x 50 Gbps (Optical)	The inclusion of 50Gbps ports in the overall design appears inconsistent with the rest of the topology, where no other components are utilizing 50G connectivity. This suggests the specification may have been introduced to align with a specific vendor's product strategy rather than reflecting an actual architectural requirement. Kindly review and revise accordingly to maintain neutrality and technical consistency.	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.
20	Schedule of Requirement Section (VII)	Switching Fabric Technical Specifications – Multi-Role Switch for Bunker Site Uplinks 4 x 200 Gbps (Optical)	What are the specific use cases that justify deploying 200G uplink ports? In typical spine-leaf or access-aggregation architectures utilizing 25G downlinks, 100G uplinks generally provide sufficient bandwidth and oversubscription ratios. The adoption of 200G uplinks appears to be driven by specialized high-throughput environments or vendor-specific design strategies aimed at future-proofing or product differentiation	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.

21	Schedule of Requirement Section (VII)	Switching Fabric Technical Specifications – Multi-Role Switch for Bunker Site HA Links: 2 x 200 Gbps (Optical)	What are the specific use cases that justify deploying 200G uplink ports? In typical spine-leaf or access-aggregation architectures utilizing 25G downlinks, 100G uplinks generally provide sufficient bandwidth and oversubscription ratios. The adoption of 200G uplinks appears to be driven by specialized high-throughput environments or vendor-specific design strategies aimed at future-proofing or product differentiation	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.
22	Schedule of Requirement Section (VII)	Data Center Next Gen Firewall Mandatory Features Threat Prevention & Security Services Industrial control security to protect SCADA/ICS environments .	Industrial Control Security is not typically required for mainstream data centers — unless those data centers are hosting or interfacing with **ICS/SCADA environments**. like power plants, water systems, and manufacturing processes how its applicable in FBR, Please share use case.	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.
23	Schedule of Requirement Section (VII)	Data Center Next Gen Firewall Compliance & Performance Compliance with ISO 27001 and PCI	The requirement for PCI certification in the firewall appears to be misaligned with the intended use case. PCI DSS compliance is typically mandated for environments handling financial transactions or cardholder data. As this scenario does not involve such requirements, it is recommended to remove this criterion to avoid unnecessary constraints on product selection	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.

24	Schedule of Requirement Section (VII)	Data Center Next Gen Firewall Compliance & Performance Support for FIPS and Common Criteria EAL4+	The requirement for FIPS and Common Criteria EAL4+ certifications in the firewall seems unnecessary for this deployment scenario. Since such compliance is not relevant to the current use case, it is recommended to remove this requirement to maintain flexibility in vendor selection	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.
25	Schedule of Requirement Section (VII)	Data Center Next Gen Firewall Compliance & Performance Secure boot and trusted execution environment	The requirement for Secure Boot and Trusted Execution Environment in the firewall appears to be unnecessary in this context. As these features do not align with the actual use case, it is recommended to remove them to avoid imposing unnecessary limitations on product selection	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.
26	Schedule of Requirement Section (VII)	Data Center Next Gen Firewall Technical Specifications HA Links: X2 x 25 Gb (Optical)	Given the sufficient number of 25G downlink service ports available, spare 25G ports can be effectively utilized for HA (High Availability) links, eliminating the need for dedicated interfaces	Incorporated in Amendment no. 2 to RFB
27	Schedule of Requirement Section (VII)	Software Defined Network Mandatory Features Active/standby DR should be supported in the single-node system scenario.	Each OEM brings its own approach and methodology to solution design. To ensure fairness and promote a competitive environment, it is recommended to remove this clause or revise it to remain open and inclusive for all OEMs, avoiding any alignment with a specific vendor	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.

28	Schedule of Requirement Section (VII)	Software Defined Network Mandatory Features Certificate authentication should be supported during ZTP to ensure security and reliability	This clause appears to be aligned with a specific brand, which may limit fair participation. The solution should remain open to all OEMs capable of meeting the business objectives. It is recommended to either remove this clause or revise it to ensure inclusivity and promote a competitive, vendor-neutral environment	It is mandatory for network security, bidder can propose equally secure or higher alternative.
29	Schedule of Requirement Section (VII)	In proposed solution VMware FT function should supported. To be specific, after detecting secondary VM login, the controller can deliver logical ports and user ports. The port names contain primary and secondary VM information. The primary VM can communicate with each other at Layer 2 and Layer 3. After the secondary VM becomes the primary VM, the logical port and user port information changes. After the secondary VM becomes the primary VM, the VMs can communicate with each other at Layer 2 and Layer 3. After FT is disabled, the secondary VM goes offline and the logical port and user port are deleted. The port name does not contain the primary and secondary port information	This clause appears to favor a specific brand, which could limit fair participation. The solution should remain open to all OEMs capable of meeting the business objectives. It is recommended to either remove this clause or revise it to ensure inclusivity, allowing all brands to participate	we need this feature because VMware FT provides continuous availability for VMs by creating and maintaining a live shadow instance of a VM that is always up-to-date. Moreover, FT ensures that in the event of a hardware failure, the VM keeps running without data loss or service disruption. The solution is designed as per FBR's requirements. Please comply to the RFB requirements.

30	Schedule of Requirement Section (VII)	Proposed solution Supports batch import of static routes, VPCs, external gateways, and SFC rules, batch export of configurations based on VPCs and devices, and batch modification of logical port names/descriptions and device passwords	All OEMs have respective import mechanism it cannot be restricted to any specific scenario please keep it open and flexibleEach OEM has its own import mechanism, and it should not be restricted to any specific scenario. To ensure flexibility and openness, it is recommended to keep the solution open, allowing for a variety of OEMs to participate without limitations	You can propose alternate to faster deployment and operations.
31	Schedule of Requirement Section (VII)	Out of Band Management Switches (Copper) Switching Capacity 650 Gbit/s or more	Switching capacity does not always correlate directly with real-world performance. The actual switching capacity in this case is 216 Gbps full-duplex	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.
32	Schedule of Requirement Section (VII)	Out of Band Management Switches (Fiber) Switching Capacity 3.5 Tbit/s or more	Switching Capacity is not relevent to Real World Performance 2.16 Tbps switching capacity (full-duplex)	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.
33	Schedule of Requirement Section (VII)	General Query	By considering a limited number of OEMs in Pakistan offering complete SDN solution, it is requested to allow respective OEMs to propose Core equipment (which needs to be integrated with the centralized controller) by allowing the specifications of Switches and Firewalls bit relaxed. This will preserve the spirit of healthy competition and ensuring the OEMs may offer end-to-end integration of offered products under SDN architecture.	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.

34	Schedule of Requirement Section (VII)	Solution should have multi-DC controller who can orchestrate services across domain controllers	DR Drill responsibility on OEM?	DR drill is also part of professional services, first DR drill must be carried out by OEM after deployment. After that OEM will be engaged only in case of requirement
35	BDS ITB 16.4	Period of time the Goods are expected to be functioning (for the purpose of spare parts): 07 Years from the date of acceptance of Goods	The period of validity of the Warranty shall be: 05 Years from the date of issuance of Final Acceptance Certificate and 05 years on site comprehensive warranty Please confirm if we need to provide 5 years' 24x7x365 support and services for all equipment	Support SLA is required for 5 Years, but the appliances/devices/software must have EOS date for 7 years
36	SCC 28.3	The period of validity of the Warranty shall be: 05 Years from the date of issuance of Final Acceptance Certificate. For purposes of the Warranty, the place(s) of final destination(s) shall be: Islamabad & Lahore.	Please confirm that to comply with the above clause the proposed equipment shouldn't be end of support (EOS) till 7 years from the date of acceptance and OEM need to provide a letter for that.	Yes, Support SLA is required for 5 Years, but the appliances/devices/software must have EOS date for 7 years
37	Schedule of Requirement Section (VII)	Page # 75, Technical Specifications – Service Leaf (DR Site)4*10_Gpbs_Copper 4*10 Gbps Copper	Please confirm for do you require 8x10 Gbps (Copper) ports.	Yes, total of 8 x 10G (copper) ports are required
38	Schedule of Requirement Section (VII)	Technical Specifications – Data Center Next Gen Firewall, Logging, Monitoring, and Management: Device Management should be available from all three SDN controllers, web-GUI & CLI , Page # 76,	Please confirm that by requesting Device Management capability from SDN controller, so you mean that Firewall should be managed, configured and optimized through SDN controller and should be from same OEM?	As per RFB the DC firewall should be managed through SDN and must be same OEM as complete solution

39	Schedule of Requirement Section (VII)	Software Defined Network (Data Center – Primary & DR Sites) 1 Solution Page # 78, Software Defined Network & Page # 82 BOQ	Please confirm if you require hardware based SDN controller or VM based?	Solution must have hardware based SDN controllers with redundant controllers on each site (PR & DR)
40	Schedule of Requirement Section (VII)	Technical Specifications	Need explanation: Solution can automatically create multi-dimensional health evaluation report which can be downloaded/sent immediately or sent as scheduled.	Solution should have a proper analysis for detailed monitoring with multiple matrices
41	Schedule of Requirement Section (VII)	Technical Specifications	Need Explanation: Solution should have multi-DC controller who can orchestrate services across domain controllers in multiple DCs. Should have the capability to uniformly orchestrate and manage multiple DCs.	Yes, with centralized orchestration and management of multiple, geographically distributed data centers under one control plane.
42	Schedule of Requirement Section (VII)	General Query	Since Implementation & After Sale support is directly required from OEM with 5 years SLA. Therefore, please confirm that only those OEM Can participate in this submission which have an active presence in Pakistan along with their certified solution and support teams to meet the SLA timelines.	OEM presence is required in Pakistan, deployment will be carried out by OEM and support cases will be handled by partner first, in case of non-resolution, OEM will be engaged to resolve and on-site presence will be required if not resolved by TAC team.
43	Schedule of requirement Section (VII) Technical Specifications	Solution design (HLD/LLD) should be provided by OEM.	This information can be provided either at the time of project award or as part of the technical proposal submission	Bidder is required to provide complete solution in technical proposal including HLD/LLD
44	Schedule of requirement Section (VII) Technical Specifications	OEM will be responsible for deployment, migration and DR failover drill.	This information can be provided either at the time of project award or as part of the technical proposal submission	OEM confirmation to this requirement must be provided in writing in the technical proposal
45	Schedule of requirement Section (VII) Technical Specifications	OEM will be responsible to configure and verify all the traffic flows as per requirement of FBR.	This information can be provided either at the time of project award or as part of the technical proposal submission	OEM confirmation to this requirement must be provided in writing in the technical proposal

46	Schedule of requirement Section (VII) Technical Specifications	Implementation of all the network equipment must be done directly by OEM. The installation & configuration should be carried out by certified engineers from OEM.	This information can be provided either at the time of project award or as part of the technical proposal submission	OEM confirmation to this requirement must be provided in writing in the technical proposal
47	Schedule of Requirement Section (VII)	Switching Fabric Technical Specifications – Sever Leaf (Optical) Primary Site RFP Switching Capacity 8Tbit/s or more	Switching Capacity Should be revised to 3.5 Tbps if Uplink Ports get downgraded to 100G	These specifications are required for excessive traffic generated by microservice architecture, bidder must have to comply with the requirement
48	Schedule of Requirement Section (VII) Technical Specifications	Switching Fabric Technical Specifications – Service Leaf Switching Capacity8Tbit/s or more	Switching Capacity Should be revised to 3.5 Tbps if Uplink Ports get downgraded to 100G	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.
49	Schedule of Requirement Section (VII) Technical Specifications	Switching Fabric Technical Specifications – Multi-Role Switch for Bunker Site Switching Capacity 8Tbit/s or more	Switching Capacity Should be revised to 3.5 Tbps if Uplink Ports get downgraded to 100G	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.
50	Schedule of Requirement Section (VII) Technical Specifications	Data Center Next Gen Firewall core firewall capabilities iFit for advanced traffic engineering.	iFit this is proprietary Huawei please make it open like DPI/traffic shaping etc.	Incorporated in amendment no. 2 of RFB

| 51 | Schedule of Requirement Section (VII) | Technical Specifications | The access port bandwidth is required 10/25GbE and uplink port bandwidth is required 200GbE. Typically with access of 10GbE or 25GbE, 100GbE uplinks is recommended simply because 100GbE ports are nothing but 4 lanesx25GbE. 200GbE is more required in networks with access bandwidth of 50GbE and is typically required in AI native networks. Also, with 48x25GbE access ports, the maximum access capacity is 1200GbE, and even if you want to keep 1:1 oversubscription, Cisco has platforms which supports up to 12x100GbE uplinks. Worth to mention, that similar platforms are deployed in the biggest FSIs and never caused any issues in terms of bandwidth or throughput. | Incorporated in Amendment no. 2 to RFB |
| 52 | Schedule of Requirement Section (VII) | Technical Specifications | As per our discussion, 56 servers access ports were required. Even when you look at the servers RFP, 94 servers are required. This implies the total access ports of 96 ports at 25GbE is required without expansion. It doesn't merit having dedicated pair of service and border leaf switches coz technically no difference exist between a server access switch, service leaf and a border leaf. The requirement can be clearly optimized. | The solution is designed as per FBR's requirements. Please comply to the RFB requirements. |

53	Schedule of Requirement Section (VII)	Technical Specifications	Now there are a few inconsistencies in DC firewall. Threat protection throughput is 10% of IPv4 throughput. That very clearly point towards Fortinet. Also, ports you only need 4 ports in the DC firewall to connect to the DC switch coz it is not inline (almost always).	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.
54	Schedule of Requirement Section (VII)	Technical Specifications	100 virtual instances with 26Gb of threat protection throughput meaning 200Mbps per instance. The switching requirements are in Tbps and per instance throughput is 200Mbps doesn't appear to be synonymous. Besides it is never recommended to have virtual instances on the DC firewall.	Incorporated in Amendment no. 2 to RFB
55	Schedule of Requirement Section (VII)	Technical Specifications	The general requirements aren't the use-cases, instead specifications taken from a mix of SDN controllers. Best is to highlight the use-cases and let different vendors propose there solution because there is no one response to a problem statement. Every vendor handles each use-case differently.	The solution is designed as per FBR's requirements. Please comply to the RFB requirements.
56	RFP Page 74,75: for Service Leaf switch Uplinks Ports Qty	Uplinks Ports Qty	For all switches Uplinks, HA are 6x interfaces, but for Service Leaf required 100G/200G interfaces are 10. Please reconfirm if 100G/200G interfaces can be reduced to 8, which are standard Uplink interface count for majority of switches. This will ensure the solution is not oversized beyond actual requirement.	Incorporated in Amendment no. 2 to RFB